

**Alternative Dispute Resolution: Can it Advance the Stated Policies of Integrated
Coastal Zone Management in Canadian Fisheries and Oceans?**

By

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ABSTRACT

The Canadian government agreed to support and participate in integrated coastal zone management as a policy objective when it ratified the 1992 *Rio Declaration on Environment and Development* (UNEP 1992) and the *Oceans Act*, SC 1996, c 31. Finite economic, environmental, political and cultural resources associated with fisheries must be shared by stakeholders who have valid yet divergent interests and values. Power struggles and conflicts are inevitable (Bastien Daigle et al 2008:121). Through the lens of alternative dispute resolution analysis, specifically the transformative approach, this thesis will explore consultation and collaborative processes associated with integrated coastal zone management in connection with a specific region of Nova Scotia, Canada. More particularly, the thesis will demonstrate how failure to adhere to basic dispute-resolution engagement principles produced conflict escalation that continues to impede relations between governing authorities and independent clam harvesters today. This thesis concludes with procedural recommendations for use in the future.

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Figure 2**Error! Bookmark not defined.**

Chapter 1: Introduction

The Canadian government agreed to support and participate in integrated coastal zone management as a policy objective when it ratified the 1992 *Rio Declaration on Environment and Development* at the United Nations conference (UNEP 1992) and the *Oceans Act*, SC 1996, c 31. In the context of this thesis, following Cicin-Sain (1993:27), a coastal zone is defined as:

Inland areas which affect the oceans mainly via rivers and non-point sources of pollution, coastal lands (wetlands, marshes, etc.) where human activity is concentrated and directly affects the adjacent waters, coastal waters (estuaries, lagoons, and shallow waters generally) where the effects of land-based activities are dominant, offshore waters mainly out to the edge of national jurisdiction (200 miles offshore), and high seas beyond the limit of national jurisdiction.

Integrated coastal zone management is intended to be a voluntary collaborative process whereby actors¹, who share an interest in a resource, negotiate public policies based on multi-criteria in participatory decision making processes (Bastien-Daigle et al 2008). Various sources suggest that integrated coastal zone management objectives include deep democracy, participatory governance, shared decision making and the empowerment of all stakeholders throughout the processes (Ali 2003; Jentoft 2005; FAO 2007; Kearney 2007; McFadden 2008). However, finite economic, environmental,

¹ The term “stakeholder” is complex in that stakeholders are individuals or groups that are identified (by whom?) through a process that examines who might be impacted by a decision or action taken by an organization. In this case study some government organization would identify a list of stakeholders, and some organizations on that list might be other government organizations. But there is a twist in the term stakeholder in that some situations involve “actors” who have not been identified as legitimate stakeholders through the strategy described above – the scallop fishermen and the municipality are two examples of this. Given the complexity of the term “stakeholder”, in some instances the term “actor” will be used instead. For a reading see Harrison, Jeffrey S. And Freeman, Edward R. (1999) Stakeholders, Social Responsibility, and Performance: Empirical Evidence and Theoretical Perspectives. *Academy of Management Journal* 42:5, pp. 479-485.

political and cultural resources associated with fisheries must be shared by stakeholders who have valid yet divergent interests and values, produce power struggles and conflicts that are inevitable (Bastien Daigle et al 2008:121). Conflict between resource users and managers can arise as a result of contested resources, incompatible roles or incompatible values (Otomar and Wehr 2002:30). If disputes² are not adequately addressed and methods are not in place to resolve them, then they can hamper the progress of integrated coastal zone management. Therefore, Charles et al (2010:26) state that conflicting uses is one component that requires “integration” in integrated coastal zone management.

This thesis will explore consultation and collaborative processes associated with integrated coastal zone management in connection with conflict in a specific region of Nova Scotia. More particularly, in Clam Harvesting Area Two in Southwest Nova Scotia, a conflict has developed that continues to impede relations between governing authorities and the independent clam harvesters. The privatization of beaches through the leasing of Crown land to the corporate sector, pollution from the Digby wastewater treatment plant and new regulations under the Canadian Shellfish Sanitation Plan have all led to events and actions on the part of government regulators and stakeholders that are not consistent with the stated policies and objectives of integrated coastal zone management. The result is various types of disputes that persist between stakeholders.

² Note: The terms dispute and conflict will be used interchangeably throughout this thesis

Because conflict resolution and integration are elusive, they have become difficult barriers to integrated coastal zone management.

This thesis proposes to explore how conflicts emerged between government regulators and independent clam harvesters, including analysis of the types and levels of conflicts that have surfaced; how governing bodies dealt with conflict; and, how alternative dispute resolution theory and methods could help to advance the stated policies of integrated coastal zone management? I begin in Chapter two, with a literature review to establish the academic context in which the conflict will be analyzed. More particularly, I will discuss literature on natural resource management, integrated management in a Canadian context, governance and power, conflicts and alternative dispute resolution and escalation of conflict with particular attention to environmental conflicts. Chapters 3 and 4 will provide information about the social context of the conflict. More specifically, chapter 3 will describe governance structures and identify the stakeholders associated with clam harvesting in CHA2 in order to define roles and responsibilities. Chapter 4 explores interactions and relationships among the stakeholders that led to conflicts, in response to activities and changes that have occurred in the industry. This is done by presenting the background to the study through a historical timeline of events. The discussion of methodology in chapter 5 will provide a statement of the problem, a summary of the fundamental questions to be answered, the chronology of methods used for data collection and the procedures applied to analyze data. Chapter 6 will present data generated during the information collection stage. The findings are presented chronologically starting from the two information sessions held in June 2008 and July 2009, two focus group sessions held in February, 2010 and the eight

individual interviews held between February and April of 2010. The association between data and themes drawn from the theoretical literature will begin to emerge in chapter 6 and will be further developed during analysis of data in chapter 7. I will then contrast and compare alternative dispute resolution practices and integrated coastal zone management methodologies in theory with practices of government and stakeholders in this case and discuss the implications of analysis. More specifically, I will consider what conflict resolution and citizen engagement theories can contribute to governance processes, and the role of community government collaboration in coastal management. I intend to argue that adherence to the fundamental values and practice principles associated with alternative dispute resolution would advance better standards of governance and would enable the potential for success of integrated coastal zone management. In chapter 8, I set out my conclusions and make recommendations about how current and future disputes in CHA2 can be dealt with.

Chapter 2: Theory

This chapter examines literature that provides a theoretical understanding of the conflict analysis in the thesis. The concept of natural resource management is discussed and put into perspective in terms of the different ways resource management can play out – co-management, community based management-- and the bundles of rights that exist for resource users and managers (Ostrom and Schlager 1992). In Canada, integrated coastal zone management was specifically developed to govern the fisheries and oceans resources. In order to comprehend the way that integrated coastal zone management has played out with respect to policies and practices, the theory is explored in a Canadian context. A fundamental component of integrated coastal zone management is participatory governance and in order to analyze processes such as consultations and decision making as they relate to the conflict situation in Clam Harvesting Area Two in later chapters, the objectives of the concept will be examined, especially as it relates to power. Understanding power is not only important as it relates to governance and integrated coastal zone management; power and the way that it is intricately linked to conflict are also significant and it will be explored at the personal, relational and structural levels.

Conflicts between resources users and managers continue to prevent progress towards integrated coastal zone management. Discussions will outline the reasons that conflicts emerge and escalate, especially where natural resources are concerned. Different types and levels of conflict will be discussed and finally, alternative dispute

resolution methods for dealing with conflicts about integrated coastal zone management are outlined.

Natural Resource Management

Questions associated with the management of natural resources such as forests, oil, natural gas, the fish stocks and oceans raise discussions around the world on a daily basis. Regardless of what the natural resource is, the same questions arise: who should manage resources, how should they manage them, and who should benefit from them. Often, natural resources are conceptualized as ‘common property’; however, this designation can vary depending on whom you ask, and when you ask the question (Wiber, Pinkerton and Parlee 2010).

In 1968 Hardin’s article on the ‘Tragedy of the Common’s’ was published; it drew attention to the problem of multiple independent individuals accessing shared limited resources. Hardin used the example of cattle pastured on plots of land that were ‘open to all’ to theorize how farmers, acting in their own self interests, will add additional cattle to common pastures because they benefit from each additional animal. Although the farmer will be troubled by overgrazing, the consequences for the pasture will be shared amongst all farmers. Hardin suggests that this inevitably leads to overexploitation of resources, which is both inefficient and unsustainable in the long term. Hardin’s argument is often cited as the rationale for imposing private property rights (see Smith 1981; Sinn 1984 as cited in Ostrom 1990:12). Thus, the strategies for dealing with Hardin’s ‘tragedy’ raise key questions about access to commons resources and the types of rights that might best manage them.

One aspect of Hardin's theory that remains unclear is whether he is referring to 'open access resources' defined as "no one has the legal right to exclude anyone from using a resource" or common property referred to as "members of a clearly demarked group have a legal right to exclude non-members of that group from using a resource" (Ciriacy-Wantrup and Bishop as cited in Ostrom, 2000:335). Ostrom (1999:2) suggests that until recently, theoretical studies, specifically those done by political economists, have analyzed simple common resource as though there were always open access with the result that "users act independently and do not communicate or coordinate their activities in any way" thus leading to overharvesting. It was not until the 1980's that the empirical validity of the theory was challenged and other theories began to surface (Ostrom 1999:2).

Ostrom has contributed significantly to this recent body of literature. Her book released in 1990 provides a comprehensive introduction to fundamental questions associated with 'governing the commons'. The main purpose of the book was to challenge the widespread perception that the best way to manage the commons and to prevent a 'tragedy' was through privatization. She suggests that many viable models and communal solutions exist that have not been imposed external authorities, and explores the various ways that "common-pool resources can be organized in a way that avoids both excessive consumption and administrative costs" (Alt and North as cited in Ostrom 1990:xi). Ostrom and Schlager (1992) expand our understanding of common property by explaining what is meant by the term and furthermore, they outline the various bundles of rights that can be claimed or held by users of a common resource system. When common resources are communally held, they argue that the most important

operational-level property rights are: access, the right to enter and withdrawal from defined physical property, and, the right to obtain products of a resource, for example, fish (Schlager and Ostrom 1992:250). Individuals who hold these rights, may or may not also have extensive rights permitting participation in collective decisions associated with management such as: the right to regulate internal use and to transform the resource by making improvements, exclusions as well as the right to determine who will have an access right and how the right can be transferred and alienation, and the right to sell or lease either or both of the above collective choice rights (ibid:251). These bundles of rights can then be upheld by a mixture of 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. While the authors identify a set of guidelines and institutions as illustrations, the cultural and social factors that produce the rules of access are seemingly forgotten. Kearney and Wiber (1996:146) suggest that developing an “empirically based definition of common property resource” is not as easy as it sounds. Furthermore, F. and K. von Benda-Beckmann and Wiber (2006:2) state that “property rights cannot easily be captured in one-dimensional political, economic or legal models”. Their work emphasizes the usefulness of Ostrom and Schlager’s ‘property as a bundle of rights’, yet they maintain that the bundle metaphor has not been used consistently. Therefore, F. and K. von Benda-Beckmann and Wiber reveal the ways in which ‘bundles of rights’ do have validity in order to demonstrate the different roles and meanings that property may have in different societies. Furthermore, they highlight the fact that many existing states have a:

...plurality of ideologies and legal institutions, often rooted in different sources of legitimacy, including local or traditional law, the official legal system of the state, international and transnational law, and religious legal orders (F. and K. von Benda-Beckmann and Wiber 2006:3).

The plurality of rights, ideologies and institutions discussed thus far, all function within various management practices. One management regime mentioned already is the privatization of resources. However, privatization is not the only or invariably the best management practice. There is a growing body of literature on strategies, such as co-management and community based management, for managing natural resources that may maintain the health and sustainability of their use over time (Ostrom, 1999:1).

Pinkerton (1996:54) states that co-management is a term that:

...has been used in a broad sense to designate a wide array of arrangements for shared decision making between government resource management agencies and community based parties. These arrangements differ a great deal in the degree of power and initiative that is shared, and in the scope and complexity of agreements.

While most definitions of co-management do not capture the complexity, variation and dynamic nature of contemporary systems of governance (Carlsson 2000; Berkes 2002; Plummer and FitzGibbon 2004 as cited in Carlsson and Berkes 2004) the definitions all have common underpinnings: (1) co-management is outwardly associated with natural resource management; (2) it is regarded as some form of partnership between public and private actors; (3) it is not a fixed state but rather a process that takes place over some duration of time (Carlsson and Berkes 2004: 67). Thus, within the concept there are various topics that warrant further discussion. Jentoft's (2005) article for example discusses the significance of empowerment in the fisheries and asserts that for co-management to become sustainable, empowerment must occur at both the

collective and individual levels. Empowerment is important because it not only increases the ability of individuals to predict, control and participate in society, but it is also perceived as an enabling process in which individuals and communities take responsibility to act effectively to safeguard or to change their environment.

Carlsson and Berkes (2004) on the other hand state that research on co-management should not concentrate too heavily on power sharing arrangements, as the practical side of co-management might be dismissed. Co-management should be understood as a continuous problem solving process (Carlsson and Berkes 2004) and Pinkerton (1996) is able demonstrate how this might take place. She provides evidence that over a period of 10 years a watershed-based multi-party group negotiated a co-management agreement which contributed locally to the resolution of three significant local conflicts (Pinkerton 2003:63). The Skeena Watershed Committee was able to successfully establish a complex power sharing relationship in which the state and tribes agreed to not only work jointly on a harvest plan, but also on advancing continuing management of the watershed through collaborative projects such as data sharing, research, enforcement planning, future consideration of a joint enhancement strategy and the coordination of potentially conflicting users (Pinkerton 1996:66). Pinkerton (1996:62) makes reference to the fact that the government produced conditions that created an environment for conflict resolution and thus for co-management to take place. Pomeroy and Berkes (1997) argue that government is a crucial partner in co-management, as co-management cannot exist without supportive legal rights fixed in legislation and policies. Thus, co-management involves some form of shared decision making arrangement between government and local resource users who negotiate and

define management functions, entitlements and responsibilities for a given territory or set of natural resources (Borrini-Feyerabend et al 2004: 69).

Community based management differs from co-management in that it refers to “institutional arrangements that feature a high degree of local control grounded in democratic community-based governance” (Steigman 2008:118). Steigman (2008:119) states that currently in Canada, community based management has developed as a result of three circumstances: (1) as the result of cut-backs and state downloading of management costs onto resource users (Bradshaw 2003); (2) as a form of community resistance to resource privatization (Kearney 2005); and (3) as a way for First Nations to obtain appropriate resource management arrangements (Wiber et al 2004). Because of the differing ways that community based management develops, the argument is made that it is important to support an extended definition of the process- one that makes explicit the underlying values guiding resource management (Berkes 2007), one that includes power sharing between community and state actors (Castro and Nielson 2001), and one that looks beyond the scale and mechanisms of governance to see community based management as embedded in a larger political economy, and as a result local political processes’ (Steigman 2008: 119).

Kearney et al (2007) emphasize the significance of participatory governance in community based management and suggest participatory governance would be more powerful if it were rooted at the community level. Local resource users are affected by decisions being made, yet they also have the power to influence events. However, a top down sectoral style of management has traditionally been used and in order to move beyond it, the development of self-organization and local governance nodes must be

encouraged by the federal and provincial governments involved in management, so that interaction can take place on a frequent basis in support of sustainable norms and institutions. Ultimately some devolution of power sharing, decision making and responsibility must be passed from government to communities. Kearney et al (2007:94) raise the point that there is a lack of clarity over what authority has the right to delegate responsibilities to communities. Wiber et al (2004) however, report on a project that included researchers and fishers, both aboriginal and non aboriginal, in a collaborative examination of the limitations and benefits of community based management from a social science approach. The authors assert that for community based management to be successful; the actors involved in the management process must ask and deal with social science questions. Local managers need to be provided with the opportunity to prioritize aspects of management they can handle and understand the consequences of the jobs they are willing to accept; otherwise the transfer of control can become too heavy a responsibility for local managers. Therefore, communities should have some degree of authority over the level of engagement that they would like to have in the organization of natural resource use and the state must recognize those local level decisions and encourage local actors to participate in both governance and management in a meaningful way (Kearney et al 2007:94). Governance is defined as “the mechanisms and processes by which power and decision making are allocated among different actors”, while management is described as “involving decisions about the use patterns as well as about transforming the resource by making improvements” (Schlager and Ostrom 1992; Ostrom et al 1994; Bene and Neiland 2005; in Kearney et al 2007:82). Kearney et al (2007:82) state that “within this framework, participatory governance

would involve a much wider sharing of powers than those shared in the management of coastal resources”. Literature on co-management and community based management demonstrates that natural resource governance is shifting toward approaches that emphasize fisher participation with some division and decentralization of power, decision making and responsibility between local resource users and government (Berkes et al 2001).

While the literature discussed here is not an exhaustive examination of the integrated coastal zone management literature, it does illustrate some of the larger discussions and debates that are currently taking place in the field. Furthermore, it outlines the major frameworks associated with natural resource management that have been conceptualized. The following section will examine the larger implications of these theories on integrated coastal zone management as it has been established internationally and nationally in connection with Canadian national oceans and fisheries policies. Co-management and community based management are just two ways in which integrated coastal zone management could be implemented.

Integrated Coastal Zone Management in a Canadian Context

In 1992 at the United Nations Conference on the Environment and Development (UNEP 1992) in Rio de Janeiro, the international importance of participatory governance was recognized in the context of environment and development when 178 states, including Canada, signed Agenda 21. The document states that “broad public participation in decision making was a fundamental prerequisite for the achievement of sustainable development” (UNEP, 1992, chapter 23.2). This was based on persuasive

evidence suggesting ecological sustainability and economic development entail complex problems of managing multiple values and outcomes which require the systematic input from those who are directly dependent on the environment for livelihood (Kearney et al 2007: 81). But “broad public participation required a transformation of governance structures and more meaningful processes of engagement among and between different sectors of civil society” (ibid).

In 1996, Canada endorsed Agenda 21 through the *Oceans Act*, SC 1996, c 31.

This Act committed the government to:

...foster the sustainable development of the oceans and their resources [through] encouraging the development of a national strategy for the management of estuarine, coastal and marine ecosystems [in collaboration with other government agencies] and affected aboriginal organizations, coastal communities and other persons and bodies, including those bodies under land claims agreements.

This document is the first endorsement by the Canadian Government of the concept the ICZM for oceans and marine resources. Canada’s 2002 *Oceans Strategy* (Government of Canada 2002:17), released by the Minister of the Department of Fisheries and Oceans (DFO), re-confirmed Canada’s commitment to Agenda 21, as it was a focused coordinated effort to implement the principles of governance outlined in Agenda 21 (Kearney et al 2007: 82). The *Oceans Strategy* also sought to implement a program of integrated coastal zone management planning to:

...engage partners in planning and managing of ocean activities [by] bringing citizens together that want to be engaged in decisions that affect them [and] establishing decision making structures that consider both the conservation and protection of ecosystems, while at the same time providing opportunities for creating wealth in oceans related economies and communities [under the guidance of DFO] (Government of Canada 2002: executive summary).

The Department of Fisheries and Oceans suggested that integrated coastal zone management and planning could be achieved through co-management (Government of Canada 2002:19). Three years after the *Oceans Strategy* was released, the Department of Fisheries and Oceans generated the *Oceans Action Plan* where emphasis was placed on seizing opportunities for sustainable development. Additionally, the plan was specifically supposed to more effectively manage the oceans and address the challenges of:

...failing oceans health, including some declining fish stocks, growing oceans user conflicts and administrative, jurisdictional and regulatory complexities and the oceans industry sector that is significantly weaker than its potential (Government of Canada 2005:4).

Similar to the *Oceans Strategy*, part of the success of the *Oceans Action Plan* would be dependent on implementing strategies for integrated coastal zone management.

Although it has been seventeen years since integrated coastal zone management became accepted in international conventions and in Canadian national policy, the government has not followed up on integrated coastal zone management language in the Act with policy or enforcement capacity. Furthermore, integrated coastal zone management has been slow to progress to implementation in practice, particularly with regard to participatory governance (Charles et al 2010)³. Charles et al (2010:27) suggest that one contributing factor is that integrated coastal zone management has tended to be

³ For examples of Coastal Communities interactions with IM, see: http://www.pri-prp.gc.ca/page.asp?pagenm=2010-0022_05

defined narrowly by the Canadian government (as in the left hand of Box 1 as compared with the right hand side of Box (1):

<p>“a comprehensive way of planning and managing human activities so that they do not conflict with one another and so all factors are considered for the conservation and sustainable use of marine resources and shared use of ocean spaces...”</p> <p>(DFO 2005)</p>	<p>“a continuous and dynamic process that unites government and the community, science and management, sectoral and public interests in preparing and implementing an integrated plan for the protection and development of coastal ecosystems and resources”</p> <p>(GESAMP 1996)</p>
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The authors identify a fundamental difference between the two definitions which requires consideration: integrated coastal zone management as defined by the Department of Fisheries and Oceans is a bureaucratic model that leaves management decisions in the control of government officials leaving out any mention of power sharing, participatory collaboration, collaborative decision making or opportunities for co-learning. The GESAMP definition, on the other hand emphasizes the importance of ‘uniting a broad range of interests and knowledge basis, thus implying that participatory collaboration, decision making and co-learning will be inherent within the process. This disparity is disconcerting in that there are potential consequences associated with implementation of management procedures when there are contradictory approaches to dealing with varying interests, values and concerns that communities, academics, organizations and government bring to the table. The inconsistency in integrated coastal zone management is evident in the tension that continues to exist between sustainability and development (Charles et al 2010). For example, proceeds and benefits from large scale oceans activities have created issues of equity when access to resources is

allocated to one segment of society while the consequences are felt predominantly by coastal communities and the environment in which the ventures take place (ibid:27). Not only are these issues key barriers preventing the development of integrated coastal zone management, but they contribute to conflicts between user groups and actors involved in the management process, which has become a particular problem.

Wiber and Bull (2009a) discuss one such conflict situation in the case of Nova Scotia Clam Management. In the Annapolis Basin and St. Mary's Bay, the intertidal zone has provided food and income for both aboriginal and non-aboriginal families. However, this recently changed when a large corporate shellfish industry was issued an aquaculture lease for 1,682 hectares of beach in St. Mary's Bay, Nova Scotia which is said to contain the only viable quahog clam stock in the Bay of Fundy. Wiber and Bull (2009a:154) argue that regulatory incentives and a lack of transparency in government management have allowed for the privatization of coastal resources. Furthermore, it was revealed that the clam harvesters in the local area protested the privatization policy because they believe it to be in direct contradiction to their cooperative attempts to redress pollution, habitat destruction and over harvesting (Wiber and Bull 2009b:3). Additionally, no effort was made by government regulators to hold public consultations at the 10 year renewal of the aquaculture lease. Instead, it was the clam harvesters who asked for help from local organizations to hold meetings for the various stakeholders involved. Additional efforts by local organizations to "meet the municipal authorities on issues such as sewage disposal, and to coordinate with national and provincial administrators" (ibid:6) were not met with government support.

A policy environment that explicitly favours privatization impairs both sustainability and participatory integrated management and furthermore, it has created a deep conflict between community and government regulators (ibid:7). Pinkerton (2000; 2002; 2003; 2008) reports a similar experience with clam management on the west coast. In her most recent work co-authored with Silver (2010), the term cadastralization⁴ which is used throughout the paper, is equated with the word privatization. Currently this market based regulatory instrument is being advocated by federal and provincial governments in Canada to promote aquaculture. While clam farming has physically displaced wild clam diggers in some instances, in other cases it has allowed other individuals to dig, but changes in how and by whom a clam beach is owned and managed which on occasion results in disputes (Pinkerton and Silver 2010:3). These two examples of conflict situations demonstrate circumstances where tension continues to exist between sustainability and development.

McFadden (2008) argues that conflicting uses is one component that requires integration and that the concept of integrated coastal zone management just be a function of two components: A perspective by which a coastal system is structured in an interdisciplinary way and a process during which stakeholders' debate and negotiate values. She therefore proposes that successful integration is based on the development of coastal management strategies from an agreement building process which is

⁴ Please note: the term "cadastration" should be used with caution as the term "cadastre" is an information record only – it is not a title or a lease. Titles are granted, not tenures; the title may include one or many rights.

ultimately defined by stakeholders and underpinned by their knowledge (ibid:300). If debating and negotiating values, in addition to consensus building are to take place, disputes are inevitable and a method must be established within the system in order to address this.

Keen and Mahanty (as cited in Charles et al 2010:32) argue that in order to:

...move ICZM forward, reducing conflict, in addition to ensuring environmental sustainability, cannot come at the expense of local level benefits or the loss of social equity among users of public resources. [Furthermore, ICZM must also] involve open discussion of the values and objectives promoted in planning exercises for any given geographic area, as well as open sharing of relevant information—thereby providing the opportunity for wider knowledge and skill base sets to be used in decision making.

Therefore, in creating a strategy to manage disputes, the complexity of the participatory governance must be taken into consideration as oceans resources such as the fisheries fall under a pluralism of de jure and de facto regulations and the jurisdiction of multiple authorities and actors. The following section will examine the concept of participatory governance and the different levels and types of power that exist which influence involvement in decision making processes.

Governance and Power

The terms engagement, empowerment, decision making and collaboration have appeared at various times throughout the chapter thus far because they are fundamental to advancing participatory governance, a key element in integrated coastal zone management (Kearney et al 2007). Kearney et al (2007: 79) maintain that participatory governance is critical in dealing with complex problems of managing the numerous values and outcomes necessary to attain ecological sustainability and economic

development in the oceans and fisheries. Arnstein (1969:216) however asks the fundamental question “*What is citizen participation?*”

According to Arnstein, there is a significant difference between going through an empty ritual of participation and having the real power required to contribute to outcomes of a process. Therefore, genuine participatory governance is:

...the redistribution of power that enables ‘have not’ citizen’s presently excluded from political and economic processes, to deliberately be included in future...it is a strategy by which ‘have not’s’ join in determining how information is shared, goals and policies are set (Arnstein 1969: 216).

The author describes eight levels of participation which are divided into three sections: (1) Degrees of citizen power- citizen control, delegated power, partnership; (2) Degrees of tokenism- placation, consultation and informing; (3) Non participation- therapy and manipulation. Based on Arnstein’s descriptions of each level, participatory governance in integrated coastal zone management should theoretically be a ‘partnership’. As the author has indicated, ‘informing’, ‘consultation’ and ‘placation’ are degrees of tokenism. Often the citizens in these cases are told that they have considerable access to the decision making process. However, the various responsibilities are not defined and remain vague. Such ambiguities are likely to cause conflict because the citizens realize that while they may have been ‘allowed’ to participate, they will not profit beyond the extent that the power holders decide to appease them (ibid:220). Furthermore, if power holders ultimately restrict the input of citizens’ participation remains just a window-dressing ritual. With ‘partnerships’ on the other hand, power is in fact redistributed through negotiations between citizens and power holders. Negotiations can also result in citizens achieving dominant decision

making authority over particular plans or programs. Planning and management responsibilities are arranged through formal agreements that are not subject to unilateral change. In most cases, Arnstein (1969:222) notes, where power is shared it is taken by citizens and not given; there is a reclaiming of local authority that is driven by community values (Charles et al 2010:32).

The typology of citizen's participation arouses discussion and debate on what is meant by the terms citizen participation and good governance. Not only does Arnstein ask what participatory governance is, she also raises the question as to what its relationship is to the social imperatives of our time (Arnstein 1969:216). The Food and Agricultural organization (FAO) of the United Nations suggest that a growing interest in governance in other sectors has spread to land administration (FAO 2007:5). The Food and Agricultural organization describe governance as "the way in which society is managed and how the competing priorities and interests of different groups are reconciled" (ibid). This includes both formal and informal institutions of government arrangements. Land tenure arrangements that ensure food security, sustainable rural development, equitable and secure access to land, especially for rural poor to reduce poverty and hunger are dependent upon good governance. Therefore, good governance should involve responsiveness to the values and needs of citizens, transparency, the involvement of citizens through consensus building and the balance of economic, social and environmental needs so that they are sustained for future generations. Schneider (1999:522) maintains that although there are still many different concepts of participation in use, there is a shift in the debate in favour of empowerment and capacity

building and accountability which are interdependent. The concepts serve as building blocks to participatory governance and function to:

...base policies on better information, to ensure that policy makers and their administration are more committed than they tend to be in non-participatory governance settings and to make the implementation of policies more effective and efficient (Schneider 1999: 533).

It appears that the context under which the terms citizen participation, good governance and participatory governance are being used is in relation to preventing poverty, or conversely to sustain the livelihoods of communities at a level that they value. Regardless of the circumstance under which the concepts are being referred to however, analogous meaning is being given to them and similar objectives are being sought. Ultimately, governance is about “politics and the way that power is distributed between different actors within society. It is about the way that people participate in decision-making and the way that engagement influences their ability to empower themselves and others” (Bene and Neiland 2006:1). Power therefore, is of central importance to the concept of governance.

It is argued that there are many conduits to power and various ways in which it can be expressed. Wolf (2001:383) maintains however, that there are four different ways in which power presents itself, each pertaining to different levels of social relations: (1) power as the attribute of the person, as potency or capability, (2) power understood as the ability of an ego to impose its will on an alter in social action, in interpersonal relations, (3) power that controls the settings in which people may exhibit their personalities and interact with others and (4) power that not only operates within settings or dynamics but also organizes and orchestrates the settings themselves, and

that specifies the distribution and direction of energy flows. It becomes apparent in the author's proposal as to the ways in which power might be expressed, that interpersonal power – the ability of one person to realize claims made upon another—is not the only level of power that takes effect in social relations. Also of influence is structural power – the ability to control access to expert information, to allocate natural resources, and to make and impose rules and regulations governing both that flow from positions in social and institutional relations (Wolf 2001: 375). While Wolf is interested in the way that structural power renders some kinds of behaviour possible while limiting others, Weber maintains that power is lodged in bureaucratic structures. He argues that citizens of any state, no matter how democratic, are imperatively controlled because they are subject to the law (Weber 1947: 153). Furthermore, he makes the assertion that the modern state is valid in monopolizing the use of force because it is indispensable to the definition of its character. Therefore, the social order that individuals' are subject to, influence, positively or negatively and opportunities for influential expression. Foucault to a large extent is an inheritor of Weber's theories (Foucault 1991:6) as Foucault entertains the notion that power is associated with the ability to govern (Wolf 2001:384). He refers to government as 'the conduct of conduct', a form of activity aiming to shape, guide or affect the conduct of some person or persons. Foucault (1991:100) argued that government is concerned with large-scale problems of the population -- welfare, longevity and wealth—and, as such, government employees who are vested with power to carry out government objectives will utilize power and techniques, directly or indirectly, that prioritize government. In practice, however, these government practices affect and often ultimately control the conduct of individuals' thus resulting in the

exercise of bureaucratic power. Foucault (1991:5) defines power as-- “actions on others’ actions”—and argues that, although power is a universal dimension in human relations, power in society is never permanent, it is an endless and open strategic game that is displayed daily in various ways.

Rose (1999) and Li (2005; 2007) draw upon Foucault’s theory when examining every day forms of power that are exercised on a daily basis by ordinary citizens in social life. Rose, (1999:197) for instance, argues that the public can achieve distinctive levels of political power within the technologies of government through social mobilization in four ways: (1) members of the public are part of a mechanism that award legitimacy to political leaders, authorities and institutions; (2) collectively, members of the public can exercise power in a way that ensures that governments align the exercise of ‘public’ authority with the values and beliefs of ‘private’ citizens; (3) collectively, the public makes modern modes of government both possible and accountable and (4) collective public cooperation is indispensable to the complex technologies through which government is power and control are exercised. For example, tax returns, populations surveys and grants to local authorities all depend on large scale public cooperation yet the data are calculated according to complex numerical indices divorced from members of the public who supply the information. Li (2005:389) raises the concept of ‘rendering technical’ in order to discuss how ruling regimes⁵ consolidate power and control by focusing on general qualitative patterns and on problems

⁵ Note: ruling regimes include government, non-governmental organizations such as the World Bank, scientists and social reformers (Li 2005:383).

associated with them for which a technical remedy within the competency of policy planners and regulators can be supplied. As such, potentially overwhelming diversities of human perspectives and practice are organized into generalized diagnoses that enable 'valid', meaning statistically provable, connections between interventions suggested by officials and expected population outcomes. Thus, we return to Foucault's theories about government and power. While power can be analyzed from an institutional governance perspective; such analyses can without additional scrutiny, obscure social relationships and patterns of power between individual actors. Thus, power can also be explored in the context of interpersonal and institutional human relationships associated with conflict and strategies for managing conflict.

To some degree, analysis of power from a governance and a conflict perspective are connected in that they both involve analysis of interpersonal and structural social arrangements. Scholars who study conflict theory propose that many conflicts are the consequence of pre-existing power relations developed through the history of relations between disputing parties. Power is associated with differential access to resources and diverse social norms and roles. It is these elements that drive their conflicts and influence what is perceived to be important, feasible and fair (Coleman 2000:108). Most conflicts, therefore, have one basic element in common: use and misuse of power.

Deutsch (2000:111) describes power as:

...a relational concept functioning between the person and his or her environment. Power is not only determined by the characteristics of the person(s) involved in any given situation, nor solely by the characteristics of the situation, but by the interaction of these two sets of factors.

Therefore, both the interpersonal and the circumstantial are important issues to consider. Coleman (2000: 108) focuses on the interpersonal level of power in disputes and outlines types of power: (1) power over: the ability to get another person to do something that he or she would not otherwise have done (Morgan as cited in Deutsch and Coleman 2000:110); (2) power with: power that is jointly developed, that involved mutual participation without coercion (Follett as cited in Deutsch and Coleman 2000:111); (3) powerless associated with dependence and (4) empowered and independent. Power can be derived from one's own qualities and characteristics, internally, or from relationships with others and while there can be competitive orientations to the use of power, Coleman suggests there are also cooperative approaches to the use of power. A party's orientation to power (coercive or cooperative) affects choices of response to conflict. In addition to relational components of power, there are also situational factors that influence power which Pirie (2000) discusses. He suggests that increasingly power is being understood in the context of social structures of institutions. He explains:

...power is not located in personal characteristics or relationships per se but in the ideas, values and beliefs that structure or order individual lives, relationships among people or society in general (Pirie 2000:140).

Pirie adds that, from a structural view, perceptions of power stem from personal characteristics and social relationships that are perceived to be privileged. In accordance with Pirie, Moore (1996 in Pirie 2000) maintains that conflict can arise from deficiencies within structures that produce unequal power and authority. Structures, according to Moore, can refer to any organizing of human relationships in national institutions to small community groupings. Sources of power -- personal, relational and

structural—are interrelated; power in each context will affect power and perceptions of power in the other context. Thus Pirie asserts that ultimately, power should be understood as a vital and changing force that is dependent on person and context, that not only causes change, but that is also continuously changing as persons and contexts and perceptions of person and context evolve and change (Pirie 2000:141).

When conflicts arise, it is important to consider power given its omnipresent influence (Coleman 2000:109). The evolution of conflict is heavily influenced by perceptions of and use of power. Thus, given that conflict produces personal, social and political change, as has been argued, analysis of power is critical to ensure equitable resolution in alternative dispute resolution processes such as mediation and negotiation (Pirie 2000:139). The following section will discuss conflict in the context of current approaches to alternative dispute resolution.

Conflict and Alternative Dispute Resolution

Conflict is inevitable in all social relations. Until recently, many disputes were resolved by lawyers or by litigants in adversarial system processes. Since the 1970's however, alternative dispute resolution, which has its roots in democratic social change, has become more widely accepted as an effective and legitimate means to resolve conflicts (Pirie, 2000). Prior to examining alternative dispute resolution processes, conflict must be defined and considered.

Coser (1969:8) defines conflict as “a struggle over values and claims to scarce status, power and resources in which the aims of the opponent are to neutralize, injure or eliminate their rivals”. The author identifies two major schools of thought on the

functions of conflict. Theorists such as Lloyd Warner, Kurt Lewin, F.J. Roethlisberger and Elton Mayo are said to view conflict in negative terms, as a social disorder, because conflict is viewed as disruptive and divisive. The focus is on the potential of conflict to destroy stability and to endanger society (Coser 1969:24). Alternatively, Charles H. Cooley and Robert E. Park viewed conflict as a constructive factor in all healthy societies. These sociologists believe that conflicts are required to call into question and to ultimately modify ineffective institutional frameworks under which grievances arise. These authors contend that the severity of the conflict or grievance will determine whether changes can be made within the existing structures or whether entire structural reform is needed. Consequently, conflict is viewed as an important and potentially positive vehicle for social and indeed institutional change.

Escalation of Conflict

When thinking about conflict, and its social functions, it is important to consider how conflicts arise and, in turn, how conflicts escalate. The escalation of conflict refers to:

...an increase in the intensity of a conflict and in the severity of tactics used in pursuing it. It is driven by changes within each of the parties, new patterns of interaction between them, and the involvement of parties in the struggle (Maiese 2003:n.p.).

Conflict escalation does not arise arbitrarily. Generally one can identify a sequence of events that provokes escalation of conflict (Bartos and Wehr 2002: 70). Felstiner, Abel and Sarat (1980:639) provide a useful theoretical framework that one can use to understand the sequence of events that must occur for conflict to arise. They maintain that conflicts are subjective in the sense that they arise without observable

behaviour; that they are unstable since perceptions associated with conflict can change rapidly; and that conflicts are reactive because conflicts always involve a claim of rejection. Conflict are also said to be complicated because they often involve ambiguous behaviour, uncertain norms, conflicting objectives and inconsistent values. The authors argue that there are three stages of development that transform an injurious experience into a perceived injurious experience and then into a conflict. Naming is the first step: perceiving and identifying a harm or injury (ibid:635). Second is blaming: wherein the injury or harm is attributed to another individual or social entity (ibid). Third is claiming: asking a blamed party to take responsibility for the injury attributed to their actions. Harm is transformed into a conflict only after it is perceived, named, blamed and claimed and the other party has rejected in part or in whole the claim (ibid:636).

After conflict is claimed and rejected, social conditions can reduce or inflame conflict severity. Escalating conflicts are associated with proliferation of issues in contention and with the numbers of people involved. Bartos and Wehr (2002:70) suggest the formation of conflict groups after an injury is claimed and rejected can result in conflict escalation. Groups formed in response to conflict help to create solidarity in the sense that members not only interact with each other and share certain goals and values, their goals are to engage in the conflict and reinforce values that support the claims associated with conflict (ibid:74). Once claimants discover that others share their views, new arguments are generated, shared, validated and reinforced. Moreover, this produces heightened commitment to claims and strengthened convictions that claims are attainable (Maiese 2003:n.p.). Once conflict groups are created, overt, escalating conflict becomes more likely. Indeed mobilization of social support through the

formation of conflict groups is perhaps the most obvious way to determine that escalation of conflict is imminent. While sometimes group formation is unintentional, in most circumstances mobilization is intentional as a demonstration of strength (Bartos and Wehr 2002:79). Other attributes of conflict escalation require additional examination.

Sources of Escalation

Power is associated with conflict group formation and with conflict escalation. Nonetheless conflicts also arise within social institutions. In conflicts that involve governments, for example, government officials may view themselves as representing the larger social system in which the other claimant is a constituent party. This is typical of governments in conflict with non- governmental individuals, groups or organizations. Commonly claims by government officials are accepted, without being rejected by individuals and agencies that are affected. This will occur when those affected by government claims view themselves as part of a political order that is legitimately coordinated and managed by government. In these cases, as Felstiner and Able assert, conflict does not arise as government claims are accepted. However, acceptance of government claims will not occur in every case (Kriesberg 1998:17). Power refers to the capacity to control resources (ibid:15) as a result of the political, social and economic order (Moore in Pirie 2000). Control over resources, can be used to produce incentives, to coerce or to positively endorse or persuade (ibid). When government claims associated with the exercise of power are not accepted, when the claims are rejected or contested, conflict arises. The next stage is when potential opponents arrive

at the belief that they and government officials are in fact adversaries with incompatible goals. In order for this to happen, significant members from one of the contending groups must exhibit that their goals are incongruous with the claims of government, thus highlighting uncomplimentary objectives (ibid:2). When adversaries begin to pursue incompatible goals, escalation is intensified (ibid). While there are a number of reasons two conflicting actors can have inconsistent goals, it is possible to reduce them to two classifications: contested resources and inharmonious values and interests (Kriesberg 1998; Bartos and Wehr 2002).

Competition over resources is considered one of the most common reasons for conflict. A sense of injustice results from one party controlling a resource that another party perceives his or her own (Bartos and Wehr, 2002:33). Conflicts over resources are inflamed when each party perceives resources to be limited (zero-sum) such that any gain for one side is perceived as a loss for the other (Kriesberg 1998:7). Maiese (2003: n.p.) claims that matters regarded by adversaries as integral to their personal or collective identities are most prone to conflict escalation. An adversary defending what is believed to be essential to existence will use whatever means are available to prevail against threats because such matters are regarded as vital (Kriesberg 1998:173). This suggests that conflicts associated with absolute deprivation, depriving a party of whatever it required to lead a decent life (Bartos and Wehr 2002:36) will be particularly intense. Perceptions about resources are affected by values and interests associated with variations in ideology, personality and past experience (Kriesberg 1998:130). When conflict groups are separated from each other, geographically, economically, socially or politically, they tend to generate different cultural identities that may inflame and

consolidate incompatible values (Bartos and Wehr 2002:41). When parties to a conflict hold fundamentally different values and attitudes, particularly values associated with persona and or group identity conflict tend to be severe and to escalate as Maiese (2003:n.p) explains:

...they may feel criticised, demeaned or threatened. Endangering identity tends to arouse conflict escalation because the opponent is viewed as wrong in principle and not merely on the wrong some of some specific issue.

Once a conflict begins to escalate, a number of changes occur.

Consequences of Escalating Conflict

Conflict theorists Dean Pruitt and Jeffrey Rubin (as cited in Maiese 2003:n.p.) explain five changes that occur when conflict escalates: (1) Parties begin by using light tactics, but quickly move to heavy tactics. Light tactics include persuasive arguments, promises and efforts to please the other side, while heavy tactics include threats, use of power and even violence. (2) The number of issues in contention expands and parties begin to allocate resources to the struggle. (3) Issues in contention move from specific to general assumptions about character and the relationships between parties begin to worsen. Adversaries begin to develop extravagant ideas about one another and often begin to consider the other side malevolent. (4) The number of parties involved in the conflict grows from one to many, more people and parties become drawn into the conflict, conflict groups form. Finally, the objectives of the adversaries' change; they no longer want to 'do well'; they want to win at the expense of the others.

When there are deep differences in the fundamental values and interests among the parties, conflict expansion is more likely. Once a conflict escalation is underway,

moderate issues can begin to take on great symbolic significance (Kriesberg 1998:167). A conflict that developed about an identifiable problem may be complicated by underlying issues that were denied or hidden for long durations of time. This is because, in the face of overt conflict, parties no longer have any reason deny them (ibid). Thus, issues expand and adversaries undergo both psychological and social changes (Kriesberg 1998; Maiese 2003). They experience anger and fear, develop negative opinions, perceptions and stereotypes of opponents. This, in return, fuels escalation (Maiese 2003:n.p). Selective perception is also a consequence and contributing factor in an escalating conflict. Once parties develop expectations, they tend to notice phenomena that fit their expectations. Therefore, once a conflict has resulted in mutual recrimination, cooperative actions by an opponent will go unnoticed or, if noticed, will be discounted and considered deceptive (ibid). Consequently, relations and communication between parties become even more polarized (ibid). People have a predisposition to stop interacting with those that they do not like or respect yet once communication has been suspended it becomes very difficult to address and resolve the substantive issues which first gave rise to the conflict. Perhaps most damaging is that lack of communication may lead to the exaggeration or distortion of facts and negative rumours that have the potential to add more fuel for escalation (ibid). Eventually, adversaries become increasingly isolated from each other, negative stereotypes are reinforced (ibid) that inflame hostility.

Hostility arises both as a result of specific grievances and general feelings of frustration. When members of a group think that they have been treated unfairly by another group, they will begin to grow hostile toward the other group. Hostile goals

increase thus and emphasizing group differences (Bartos and Wehr 2002:73). When negative sanctions are imposed, distrust among adversaries is legitimized (Maiese 2003). Unjust conduct, and hostility, may also result in retaliation (Sung Hee and Smith 1993). Retaliation may serve to repair self-esteem (Murphy and Hampton as cited in Sung Hee and Smith 1993:40) but it is also make the situation even more volatile, particularly when retaliation is an overreaction. In this case the groundwork for a fresh injustice has been created, and the original ‘offender’ becomes an injured party (Sung Hee and Smith 1993:41). Ultimately, as conflict escalates, structural changes, such as the consolidation of conflict groups, also occur (Bartos and Wehr 2002) and it becomes evident that changes are occurring not only at the individual level but also at the group or collective level (Maiese 2003).

Environmental Conflicts and Alternative Dispute Resolution

Once conflicts escalate, conflict management or resolution strategies are required. Moore (in Pirie 2000:xv) explains that alternative dispute resolution includes collaborative approaches to reaching agreements such as unassisted negotiations, and facilitated problem solving such as mediation. The objectives include: preservation of relationships of disputing parties, enhanced cooperation, enhanced empowerment of the parties through participation and engagement and improved value and acceptability of outcomes. Morris (2002 n.p) suggests that the interest-based approach to mediation and negotiation is the alternative dispute resolution approach most typically used in North America. The interest-based approach involves identifying the needs and interests underlying the disputing parties’ claims and positions. Solutions are then developed by

parties with the help of a facilitator or mediation which address and accommodates as many of the needs and interests as possible. It is a process that is integrative and value creating in nature. This is in contrast to the adversarial system which utilizes power based approaches, is authoritarian, competitive and results in choices being made between rights and entitlement claims (ibid). Fisher, Ury and Patton (1991) discuss methodologies for arriving at mutually satisfactory agreements which include focusing on interests rather than positions, inventing options for mutual gain, separating people from the problem and insisting on the use of objective criteria. Ury (1993) focuses on the personal and emotional elements that must be taken into consideration when trying to win the cooperation of others. Ury argues cooperation is achieved by not reacting or arguing, but reframing issues and positions, and by using power to educate disputing parties. He also suggests that the only way to achieve an optimum resolution for all parties is to ensure balanced equitable participation in the process.

The interest-based practise has traditionally been used to resolve issues associated with family, tort and property law. Now however, this approach to mediation is also being widely used in the environmental sector (Spaeder 2005). Conflicts over natural resources are referred to as environmental disputes. They often arise as a result of different views on what constitutes good environmental policy (Boscow and Wheeler 1984:5), or over legislation, or over the management and access to resources. Boscow and Wheeler (1984:3) point out that conflict of this nature often generate significant costs for industry, government and citizen groups and furthermore, there is uncertainty about the way that disputes will be resolved in the legal system. As a result, disputing parties may engage in expensive contingency planning utilizing resources that could be

used elsewhere more productively. Although environmental conflict is inevitable as a result of the finite nature of natural resources and the number of actors who share in their economic, environmental, political, cultural and social value (Bastian Daigle et al 2006:25), the costs of conflict can be reduced through environmental dispute resolution (Boscow and Wheeler 1984:3).

Not only is there potential for the expenses of conflict to be minimized with alternative forms of dispute resolution but Keen, Brown and Dyball (2005:14) argue that disputes can also be approached constructively in a way that generates opportunities for learning, an essential component of producing holistic and integrative frameworks required to support sustainable environmental management practices. Furthermore, constructive controversy can encourage dialogue through the sharing of interests, curiosity, inquiry and open minded creative problem solving (Johnson, Johnson and Tjosvold 2000:84). Part of this collaboration process involves consensus building, an approach to problem solving where parties “forge agreements that satisfy everyone’s primary interests and concerns” (Susskind, McKeenan and Thomas-Larmer 1999:xvii). Susskind, McKeenan and Thomas-Larmer (1999:xvii) argue that when solutions are jointly developed, they are more widely supported and more readily implemented because parties have a hand in shaping the agreement. Additionally, participants gain a mutual respect for one another’s perspective thereby enabling them to work together more successfully and efficiently in the long term.

While the interest-based approach to alternative dispute resolution is effective in identifying common, overlapping and mutual interests between actors in an effort to resolve conflict, it has its limitations which have been noted by various practitioners and

theorists. Dukes (1993:46) criticizes the current mainstream practice of alternative dispute resolution (interest-based approach) expressing the belief that:

...the goals stressed within the management practice are saving money, reducing court loads, eliminating delays, and reducing demands on government. [As a result] the questions about the kinds of problems being tackled, the scope of representation in conflict resolution forums, the impact upon different communities of the agreements emerging from the forums, are ignored or addressed instrumentally in terms of how they affect the task of reaching an agreement.

Dukes maintains that if the public does not discuss the ramifications of using alternative dispute resolution as a management tool rather than as a vehicle for social justice and transformation, detrimental consequences to the practice will flow from conflict resolution practices. He then begins to describe the transformative approach to alternative dispute resolution which is fundamentally different from management ideologies associated with interest-based models. He claims that the transformative approach is rooted in “the critical assessment of our society that recognizes the class of fundamental problems derived from the legacy of modernity” (ibid:47). The problems derived from modernity comprise of, but are not limited to, cultural dissolution and alienation from institutions of governance which results in an inability to solve problems and resolve public conflict (ibid). The objective of transformative practice is to create sustainable relationships between and among individuals and communities. Sustainable relationships lead to relatedness which includes responsibility, obligation, loyalty, respect, understanding, recognition and empathy of others beliefs, values and needs (ibid:50). Ultimately the approach seeks to create more engaged communities, responsive governance and a capacity for problem solving and conflict resolution (ibid:29).

To date, the experiences of Bush and Folger (1994) lead them to believe that the promise of transforming relationships and approaches to conflict through mediation has largely gone unfulfilled. They do not deny that the interest-based approach has some positive attributes, particularly, as an alternative to the distributive adversarial framework. However, they maintain that the model has limitations too. They build on Laura Nader's argument to suggest that mediators have the ability to influence conflict as it unfolds by telling participants what is important in the resolution process and what is not. The authors claim that this leaves participants dissatisfied or satisfied at the expense of others (Bush and Folger 1994:70). Consequently, Bush and Folger claim, the interest-based model reinforces are deeply rooted injustices and inequalities. The authors conclude that the interest-based model, sometimes called problem solving approach to mediation and negotiation is not ideal and emphasize that "the problem is not with individual mediators but with the approach as a whole" (ibid:75). They propose a fundamentally different approach to mediation which they suggest can be found in the transformative framework. Bush and Folger (1994:84) believe that the ideal response to conflict is not to solve 'the problem' but to help transform the individuals involved by:

...utilizing opportunities [conflict] presents to change and transform parties as human beings, and encourage and help the parties to use the conflict to realize and actualize their inherent capacities both for strength of self and for relating to other.

This is what they refer to as 'empowerment and recognition'. Morris (2002) adds that Bush and Folger's focus is not on settlement of substantive issues but on individual and social transformation.

This view is consistent with Lederack's (1995) fundamental thesis that we need to explore critically at a much deeper level, both the content and approach to conflict resolution and its relationship with culture. Lederack (1995:6) joins Dukes and Bush and Folger in criticizing alternative dispute resolution as practiced by the dominant North American. He believes it is time for practitioners to:

...move beyond the rhetoric of dispute resolution training and what it purports to do, to a critical examination of training as a project, as a socially constructed, educational phenomenon comprised of purpose, process and content.

He supports the social constructionist view. The fundamental idea is that social conflict evolves from the meaning and interpretation that people attach to actions and events (Lederack 1995:8). The potential for transformation lies in the ability to understand, at a deep and fundamental level, how people from different cultures and backgrounds understand, interpret and respond to conflict. In order to understand conflict and develop appropriate models to deal with it, the process must be rooted in, draw from and respect the knowledge of the disputants involved. Lederach draws from three major schools: (1) Popular education or the Freirean school of thought where the student and teacher learn together; (2) the belief that a practitioner must pursue, encourage and validate the knowledge of the disputants and (3) Ethnographic research, which documents how understanding must evolve from meaning as participants understand it (ibid:25). Lederach (1995:21) makes it explicitly clear that 'process matters more than outcome' and that, in times of conflict, not enough attention is paid to how issues are approached discussed and decided. The transformative approach had only been discussed briefly by a few authors prior to Dukes' 1993 article. Consequently, in 1993, he complained that the approach had:

...not yet been fully articulated as an integrated body of theory and practice, that there is only a small body of thought and practice that highlights portions of this transformative potential (Dukes 1993:47)

However, three significant bodies of work by Dukes (1993), Bush and Folger (1994) and Lederach (1995) now suggest a new theory and approach to the practice of alternative dispute resolution that is appropriate for use in environmental disputes (Dukes, 1993).

Conclusion

In reviewing the literature on natural resource management, integrated coastal zone management, governance and the transformative approach to alternative dispute resolution, I found that a common language and set of values surfaced: sustainability, empowerment, knowledge, participatory engagement, power and shared decision making. The objectives of the transformative approach coincide with those of integrated coastal zone management. Consequently, the transformative model would appear to be an appropriate framework to use as a lens when examining coastal zone management conflict. It has the potential to provide important insight and responses to questions such as: To what to what extent did the government adhere to the methods of conflict resolution? Were the objectives of Integrated Management achieved? What types of processes were used in making management decisions? Were they integrative and collaborative? Was there a genuine discussion and debate? Did they follow rules of 'good governance'?

The following chapter will identify the stakeholders involved in the case study that I have selected to examine and provide an overview of their roles and responsibilities thus elucidating the complexity of the jurisdictional organization.

Chapter 3: Jurisdictional Organization

In this chapter I will outline the jurisdictional organization of the clam harvesting industry in Digby and Annapolis Counties, Nova Scotia. This is the region that is the focus of my case study, also referred to as Clam Harvesting Area Two. Providing a framework for the governance structure will identify the stakeholders involved with managing the clam harvesting industry and will establish their respective responsibilities.

CHA2 is comprised of the intertidal zone along the boundaries of both Annapolis and Digby Counties, Nova Scotia (Wiber and Bull 2009a:156). The largest source of soft shell clams (*Mya arenaria*) are found in the Annapolis Basin (Annapolis County) (Sullivan 2007), a sub-basin of the Bay of Fundy, while the largest source of quahog clams (*Mercenaria mercenaria*) are found in St. Mary's Bay (Digby County), a sub-basin of the Gulf of Maine (Wiber and Bull 2009a:156). These two bodies of water make up the Annapolis Watershed region of Nova Scotia (ibid:154).



Figure 1 Clam Harvesting Area Two: Digby and Annapolis Counties, Nova Scotia (Government of Nova Scotia, 2011).

Under British common law, tidal lands have long been regarded as incapable of private occupation, cultivation and improvement; historically, they were set aside for public use and enjoyment (ibid:156)⁶. In Canada for the most part, the Crown holds title to lands below the high tide line and these lands are open to the public to facilitate fishing and navigation. Arrangements can vary however, in terms of federal or provincial jurisdiction over intertidal zones and over the degree to which private freehold title in land can include intertidal areas (ibid:156). These arrangements between the federal and provincial governments not only affect land title, but they also influence the structural organization for managing resources such as clams found in the intertidal

⁶ It can be argued that the tidelands are not Crown because they are unusable. This is a fallout from Lord Hale “*De Jure Maris*” in Sir Mathew Hale and Robert Gream Hall (1888) Stevens & Haynes, Law Publishers: Bell Yard, Temple Bar., which was written for political, legal and financial reasons. Tidelands have always been valuable for shellfish, seaweed, ownership of wrecked vessels, and even for supporting buildings. Therefore, the upland owner or tidal flat title holder if not the Crown, are also stakeholders in ICZM.

zones. In Nova Scotia, jurisdictions and powers to govern clam harvesting are divided between federal and provincial governments. Ideally, management plans created by resources users such as the clam harvesters should also be taken into consideration.

Governance of the Intertidal Zone in the Canadian Context

Under the *Oceans Act*, SC 1996, c 31 the Canadian government empowered Department of Fisheries and Oceans to bring various users of the fisheries and oceans together in order to further integrated coastal zone management. The specific objective of fisheries management is: ... [to ensure] the conservation and protection of Canada's fishery resource, in partnership with stakeholders, to assure its sustainable utilization (Section 4.2, Report of Auditor General, 1999). Additionally, chapter 4, section 4.19 of the Report of the Auditor General (1999) on *Managing Atlantic Shellfish in a Sustainable Manner* states that the *Fisheries Act* R.S.C., 1985, c. F-14 provides extensive powers to the Minister of Fisheries and Oceans to decide who fishes, how much fish can be harvested, the fishing methods used, the timing of the fishing season and many other aspects of the fishing activity. Thus, to a large degree Department of Fisheries and Oceans has the authority to determine what Schlager and Ostrom (1992) call the rules of access and the rules of withdrawal. Wappel (2003:n.p.) maintains, however, that there is overlap between federal and provincial responsibilities. As a branch of DFO, Fisheries and Aquaculture Management have two somewhat conflicting mandates. Under the *Fisheries Act* R.S.C., 1985, c. F-14, they have a responsibility to "administer, monitor and enforce compliance with its regulations relating to conservation and protection, environment and habitat protection" (DFO 2005:n.p.).

Meanwhile, under the *Oceans Act*, SC 1996, c 31, the branch also has a mandate to support conservation (Wiber et al 2010).

In 1995 the province of Nova Scotia signed a Memorandum of Understanding on aquaculture development with the federal government (Wappel 2003) and in 2002 it was renewed. In this bilateral agreement, the respective roles and responsibilities of the federal government and provincial and territorial governments were established. Federal responsibilities include: fish health and inspection, the protection of fish and habitat, and scientific research. Provincial and territorial responsibilities include the promotion, development and regulation of aquaculture. The province is also responsible for the issuing of aquaculture leases and for the administration of leasing (ibid). The Memorandum of Understanding thereby permits the Nova Scotia Department of Fisheries and Aquaculture to lease crown land beaches to private companies for the aquaculture of species such as clams (Wiber and Bull 2009b). In response to the signing of the Memorandum of Understanding, the *Fisheries and Coastal Resources Act*, 1996, c. 25, s. 1 was legislated. Chapter 25, section 6 states:

Power of Minister—The minister, for the purpose of the administration and enforcement of this Act, may (a) establish and administer policies, programs and guidelines pertaining to the administrative development and protection of the fishery and coastal zone aquatic resources; (b) consult with and co-ordinate the work and efforts of other departments and agencies of the province respecting any matter relating to the maintenance and development of fishery resources.

Prior to the decision making process regarding aquaculture applications, the Minister is obligated to consult with The Department of Environment, the Department of Natural Resources, the Department of Agriculture and Marketing, the Department of Housing and Municipal Affairs, in addition to any boards, agencies and commissions as

may be prescribed. Additionally, it is at the discretion of the Minister to initiate a public consultation process with the regional aquaculture development advisory committee (RADAC) (Section 47 1996). The regional aquaculture development advisory committee's are regionally and geographically oriented around the coast and are comprised of the applicant, local politicians, town councillors, traditional fishery representatives and representatives from various aquaculture industries and local community members. This form of public engagement allows for an open discussion to take place about the benefits and limitations of a proposed development and where it might be situated. If there is some consensus, the results are brought to the Minister who considers the information in making a final decision (individual interview with Canadian Food Inspection Agency informant, March 4th, 2010). Consequently, the province also has regulatory powers in the clam fishery (Charles et al 2010: 16). The Department of Fisheries and Oceans and the Nova Scotia Department of Fisheries and Oceans however, are not the only two actors in Clam Harvesting Area Two determining operational rules (Schlager and Ostrom 1992).

The Digby and Annapolis clamming associations established a Clam Management Board and developed a Clam Management Plan that has been recognized by the Department of Fisheries and Oceans. The objectives of the plan include, but are not limited to: sustainability through conservation and enhancement efforts; work in collaboration with Department of Fisheries and Oceans to enforce any sanctions placed against individuals or companies for non compliance; the board has full access to all information regarding all species of clams; the board has input on the management of all open and closed areas and any ventures being undertaken by Department of Fisheries

and Oceans (Clam Management Plan 2004). Given this, the clam harvesters are provided with some level of power.

While the division of jurisdictions and powers in CHA2 appear to be straightforward, there is another factor that influences management procedures in the clam harvesting industry, which is the Canadian Shellfish Sanitation Program.

The Canadian Shellfish Sanitation Program

The Canadian Shellfish Sanitation Program was established in 1924-25 in response to an epidemic of typhoid fever after the consumption of contaminated oysters in the United States. Canada passed the *Fish Inspection Act* (now R.S.C 1985 c.F-12 as amended) in 1925 which has been in force and effect, since that time, having been amended from time to time. The Act requires imported shellfish to be certified as safe for consumption (Canadian Food Inspection Agency 2008). Additionally, in 1948 due to a mutual concern to protect the public from the consumption of contaminated bivalve molluscs, the United States and Canada signed a formal Bilateral Agreement allowing both countries to audit each other to ensure food safety standards (Canadian Food Inspection Agency 2008). As a result, the Canadian Shellfish Sanitation Program manual incorporates some material from the United States' National Shellfish Sanitation Program (Canadian Food Inspection Agency, Environment Canada and the Department of Fisheries and Oceans 2008: forward 1). There are some administrative and technical differences that exist between the Canadian Shellfish Sanitation Program and the United States' National Shellfish Sanitation Program however, the programs provide equal assurance that bivalve molluscs are safe for consumption (Canadian Food Inspection

Agency, Environment Canada and the Department of Fisheries and Oceans 2008: forward 1). The *Fisheries Act* R.S.C., 1985, c. F-14 Management of Contaminated Fisheries Regulations, the *Fish Inspection Act* (now R.S.C 1985 c.F-12 as amended) in 1925 and Fish Inspection regulations provide the legal authority for Canadian Shellfish Sanitation Program (Wiber and Bull 2009a:159). The purpose of the Canadian Shellfish Sanitation Program is to “evaluate regional activities associated with the Shellfish Sanitation Program including governing the control of shellfish growing areas, and the harvesting, processing and distribution of shellfish” (Canadian Food Inspection Agency, Environment Canada and the Department of Fisheries and Oceans 2008: forward 1). The Canadian Shellfish Sanitation Program is delivered by three governing agencies: the Canadian Food Inspection Agency, Environment Canada and the Department of Fisheries and Oceans. Their responsibilities are delineated as follows:

Canadian Food Inspection Agency-- is the lead agency for the overall Canadian Shellfish Sanitation Program coordination and is also responsible for the control of handling, storage, transportation, processing and labelling of shellfish including imports... the agency also liaise with foreign governments on matters relevant to shellfish sanitation. Environment Canada-- is responsible for the monitoring of water quality in shellfish growing areas and the classification of shellfish harvesting areas on the basis of growing water surveys under authority of the *Fisheries Act* R.S.C., 1985, c. F-14 and Regulations. Department of Fisheries and Oceans-- is responsible for the enforcement of closure regulations and enacting the opening and closing of shellfish growing areas under the authority of the *Fisheries Act* R.S.C., 1985, c. F-14 and

Regulations (Canadian Food Inspection Agency, Environment Canada and the Department of Fisheries and Oceans 2008: chap 1, 1).

As of January 2009, under the Canadian Shellfish Sanitation Program, the harvest of shellfish near waste water treatment plants in CHA2 is regulated by the Conditional Management Plan. Under this plan, there are six classifications under *open status* (wastewater treatment plant is running normally). These include:

1. Prohibited—no harvesting except under permit for seed or spat
2. Restricted (formerly closed) —meets water quality criteria for depuration
3. Conditionally Restricted (NEW)—operated as restricted
4. Conditionally approved—operated as approved
5. Approved—meets water quality for unrestricted harvesting
6. Unclassified Waters—un-surveyed waters, not tested and not approved for harvesting.

Classifications for *closed status* (wastewater treatment plant failure) include:

1. Prohibited -- No harvesting except under permit for seed or spat
2. Restricted-- Operated as Prohibited, minimum closure 7 days: re-opened when water quality and shell stock meet standards
3. Conditionally Restricted -- Operated as Prohibited, Minimum closure 7 days: re-opened when water quality and shellstock meet standards
4. Conditionally Approved-- Operated as Prohibited, Minimum closure 7 days: re-opened when water quality and shellstock meet standards

5. Approved -- Meets water quality criteria for unrestricted harvesting (Canadian Food Inspection Agency, Environment Canada and the Department of Fisheries and Oceans 2009: personal communication).⁷

Based on these classifications, approved areas are deemed clean enough for harvesting without having to undergo any type of treatment such as depuration. In areas that are identified as ‘restricted’ and ‘conditionally’ restricted, harvesting is possible as long as the clams undergo depuration⁸ (Nicole Newell, Personal communication May 10th, 2010). Leases for depuration areas are issued by the Nova Scotia Department of Fisheries and Aquaculture, while depuration licenses are issued by the Department of Fisheries and Oceans⁹.

The structure that has been outlined thus far reveals that there several policies under the jurisdiction of multiple actors that are directly involved in managing clam habitat, clam fishing and clam processing (Wiber et al 2010:599). This has resulted in the development of bureaucratic ‘silos’. Wiber et al (2010:601) state that from an organizational perspective, “the term ‘silo’ refers the lack of horizontal, integrative government services across different departments, branches and divisions”. In CHA2, various organizations and working groups have been created in an attempt to bridge silos.

⁷ For maps of growing area classifications of the Conditional Management Plan see Appendix 1.

⁸ Depuration is a process whereby clams go into a clean water bath for 48 hours so that that they can be flushed of their fecal coliform (Wiber and Bull 2009b).

⁹ While the duration of leases may vary, licenses are issued on an annual basis.

Bridging Silos in Clam Harvesting Area Two

The Annapolis Watershed Resource Committee is a local organization that has been developed to facilitate integrated management in the Annapolis Watershed region of Nova Scotia. It is a multi-stakeholder management board that is comprised of national and provincial government regulators¹⁰, municipal authorities, the CHA2 clam harvesters association, the Bay of Fundy Marine Resource Center¹¹, Bear River First Nation, the Clean Annapolis River Project¹² in addition to representatives of the processing sector. The objective of the committee is to provide a platform for both vertical and horizontal linkages to discuss issues that affect shellfish beds along the intertidal zone such as sewage treatment, agricultural land wash, leeching from dumpsites, siltation from hydroelectric developments and more (Wiber and Bull 2009a:154). Both the Marine Resource Center and Clean Annapolis River Project are organizations that work to support the health of coastal communities and healthy marine ecosystems. The Marine Resource Center has engaged in various projects with the clam harvesters and has encouraged local level participation in integrated coastal zone management by convening various integrative and collaborative opportunities such as a national learning circle on shellfish management (Bay of Fundy Marine Resource

¹⁰ Note: These include the Nova Scotia Department of Fisheries and Aquaculture, Department of Fisheries and Oceans, Canadian Food Inspection Agency, Environment Canada and the Nova Scotia Department of Environment and Labour.

¹¹ Throughout the rest of the thesis, the Bay of Fundy Marine Resource Center will be referred to as the Marine Resource Center

¹² The Clean Annapolis River Project (CARP) is a member of Environment Canada's Atlantic Coastal Action Program (ACAP). It is a charitable, community-based, non-governmental organization that began in 1991. CARP works with communities and organizations to promote awareness about and to foster the conservation, restoration and sustainable use of marine and freshwater ecosystems of the Annapolis River Watershed (<http://www.annapolisriver.ca/aboutcarp.php>).

Center website). The Marine Resource Center has also been integral to creating forums for discussion on issues relating to the clam industry such as aquaculture leasing¹³. Together with Clean Annapolis River Project, the Marine Resource Center facilitated the establishment of the Annapolis Watershed Resource Committee and worked to make it a key management institution.

At the government level, the Southwest Nova Scotia Clam Advisory Committee has been established in an effort to integrate multiple actors in the management of the clam industry. Presently it is comprised of representatives from Digby and Annapolis regions, provincial and federal government regulators, aquaculture associations, clam buyers and processors, Aboriginal communities and fishing industry representatives. Issues such as annual fishing plans, regulatory measures, fishing seasons, licensing policies, size limitations, gear restrictions and enhancement work are brought to the table to be discussed and debated. The committee then provides advice to Department of Fisheries and Oceans on policies, programs and procedures. The Department of Fisheries and Oceans can then establish an effective management regime that takes into consideration the local scientific, economic and enforcement conditions. The meetings are held throughout Southwest Nova Scotia and decisions are arrived at through consensus¹⁴ (Terms of Reference 2005).

¹³ See: Wiber M. and Bull, A. (2009b) Re-Scaling Governance for Better Resource Management? In Rules of Law and Laws of Ruling: ON the Governance of Law. F. and K. Von Benda-Beckmann and Julia Eckert (eds.) Ashgate Publishing: Burlington, USA.

Wiber, M. and Bull, A (2009a) Aquaculture Leases on Closed Beaches: a Roadblock to Sustainable Shellfish Management?

¹⁴ For the purpose of this SWNSCAC, the consensus rules are: i) an opinion held by a majority of members present, ii) general agreement, if polling is required, only elected license holders will be polled.

In CHA2, three institutions were developed to bridge silos and assist in creating forums for integrated coastal zone management in the soft shell clam industry. While Canadian Shellfish Sanitation Plan might be briefly discussed, there are other venues that exist where the integration of Canadian Shellfish Sanitation Plan responsibilities and regulations are the predominant focus. The Nova Scotia Shellfish Working Group involves Canadian Shellfish Sanitation Plan partners (Canadian Food Inspection Agency, Environment Canada, Department of Fisheries and Oceans), provincial regulators, community group shellfish associations (aquaculture and wild), Aboriginal groups, municipal government agencies and other actors. The main purpose of the working group is to exchange issues and perspectives, discuss and debate Province wide concerns or interests that concern both wild harvest and aquaculture shellfish harvest (Personal Communication with Bill Whitmen of the Nova Scotia Department of Fisheries and Aquaculture November 26th 2010). Furthermore, it is a forum where Environment Canada can share data on water quality tests, Canadian Food Inspection Agency can inform the industry on shell stock toxin tests and Department of Fisheries and Oceans can brief participants on the contaminated area fishery, open and closed areas and regulations. Information that is discussed at Nova Scotia Shellfish Working Group meetings is then brought to the Atlantic Region Interdepartmental Shellfish Committee which is comprised solely of Canadian Shellfish Sanitation Plan partners with provincial participation. Their mandate is to deal with Canadian Shellfish Sanitation Plan issues including growing area classifications, toxin reports and policy development. Recommendations from the Atlantic Region Interdepartmental Shellfish Committee are then provided to the National Interdepartmental Shellfish Committee

(Paula¹⁵ of the Department of Fisheries and Oceans, personal communication, August 5th, 2010). The National Interdepartmental Shellfish Committee reviews and considers presentations, reviews regional assessments, discusses and assesses Canadian Shellfish Sanitation Plan implementation to address national shellfish-related legislation, regulatory, policy and/or procedural issues, establishes sub-committees and working groups to develop appropriate policies or procedures, provides policy recommendations to the Canadian Shellfish Sanitation Plan Director General of Operations Committee for decision/action and overseeing and/or facilitating the implementation of aspects of decisions made by Canadian Shellfish Sanitation Plan Operations Committee and finally, enhances interdepartmental communication and co-ordination in the delivery of Canadian Shellfish Sanitation Plan (Canadian Food Inspection Agency 2008:n.p.). Ultimately the Nova Scotia Softshell Working Group and the Atlantic Region Interdepartmental Shellfish Committee are devoted to integrating the various actors that are affected by and involved with the development and implementation of Canadian Shellfish Sanitation Program regulations.

Conclusion

The governance framework in CHA2 is a complex arrangement due to the number of actors and management issues that require integration. The following

¹⁵ In order to protect confidentiality and to comply with ethical research obligations, interviewees are being given pseudonyms

schematic¹⁶ illustrates how complex the technical solutions have become and how many bureaucratic silos have become involved:

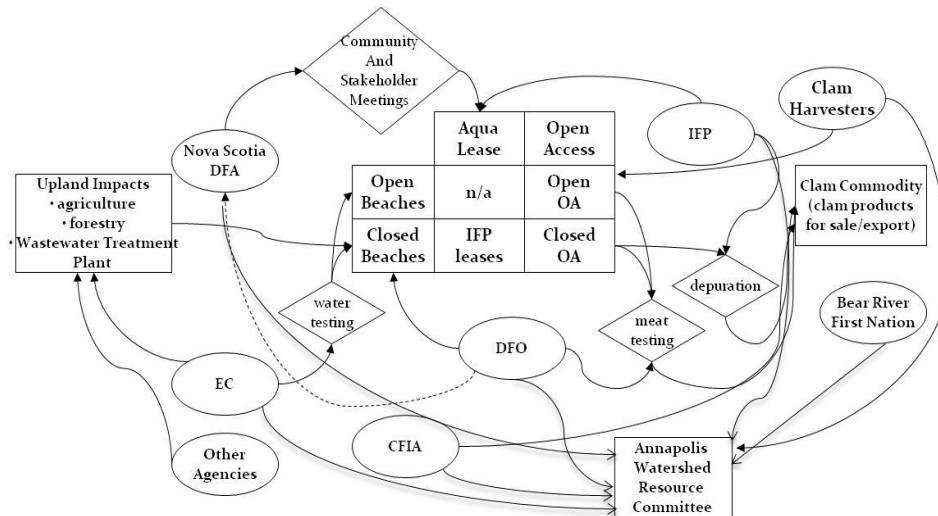


Figure 2

Ideally bureaucratic organizations should facilitate the clear assignment of roles and responsibilities in specific policy areas (Wiber et al 2010:602). Efforts to do this are being made with community-based organizations like the Annapolis Watershed Resource Committee and Marine Resource Center and government initiatives such as the Southwest Nova Scotia Clam Advisory Committee, the Nova Scotia Shellfish Working Group, the Atlantic Region Interdepartmental Shellfish Committee and the NISC. However, Wiber and Bull (2009b:6) argue that:

...despite local efforts by local organizations to organize an integrated response, to meet with municipal authorities on issues such as sewage disposal, and to

¹⁶ This schematic has been modified from the original version which was published in Wiber, Melanie G., Rudd, Murray., Pinkerton, Evelyn., Bull, Arthur and Charles, Anthony (2010) Coastal management challenges from a community perspective: the problem of ‘stealth privatization’ in a Canadian fishery. *Marine Policy* 34(3) p. 601.

coordinate with national and provincial administrators, they have received little government support from either the province or federal government.

In fact, the Annapolis Watershed Resource Committee has “struggled to be effective in the face of a regulatory environment” because policy “does not allow for a significant local voice in coastal resource management decisions” (Wiber and Bull 2009a:154). Furthermore, traditional government departments often work separately from one another; therefore, they are not capable of fully understanding complex systems (Edge and McAllister 2009:280) such as integrated coastal zone management. Line departments (i.e. silos) have customarily tried to deal with the complexity by dividing problems amongst the various departments in order to make the pieces more manageable. Consequently, organizational challenges can arise because of overlapping responsibilities (Wiber et al 2010:602), yet challenges can also be the result of fragmented and uncoordinated policies and interests, resource scarcity and a lack of trust, communication and collaboration (Edge and McAllister 2009:280). When the transfer of decision making, management roles and responsibilities to the community level has been met with bureaucratic barriers (Wiber and Bull 2009a:168) and mechanisms to increase coordination or communication have not been established or are ineffective, silos can become a management problem (Wiber et al 2010:602) and conflict can ensue.

In the following chapter, I provide a chronology of events in CHA2 in order to provide a background to the study.

Chapter 4: Chronology of Events in Clam Harvesting Area Two

In this chapter, I will provide some historical background to the study area. Furthermore, I will outline a chronology of recent events that have impacted clam harvesting area two in order to contextualize the area and to establish an understanding of the various activities and changes that have occurred in the area and in the clam harvesting industry.

Clam harvesting has a long history in the Digby and Annapolis counties of Nova Scotia. Aboriginal peoples relied to a great extent on clams as illustrated by the large shell middens found near aboriginal settlements. These middens also attest to the wealth of shellfish that historically existed (Bourque 1995). Aboriginal harvesters were likely aware of water quality issues such as Paralytic Shellfish Poisoning and their harvesting may have taken place largely in the winter, as water quality problems increase during warmer months (Sullivan 2007). When Acadians arrived to the Annapolis Basin area in the 1600's, the aboriginal people shared the resources with them and passed on their harvesting knowledge. Both soft shell (*Mya arenaria*) and quahog (*Mercenaria mercenaria*) clams¹⁷ were sought at that time (Sullivan, 2007; Wiber and Bull 2009b), and these two types of clams continue to be harvested in the area to this day.

In the mid-eighteenth century, during and after the British-French wars, the Mi'kmaq of Nova Scotia signed several peace and friendship treaties with the British. These provided aboriginals with the right to fish and to sell fish they caught at European

¹⁷ In CHA2, Quahog Clams are also referred to as cherry stones and bar clams.

‘truck houses’ (Isaac 2001:26). Between 1760 and 1761, treaties were signed which covered all Mi’kmaq and Maliseet communities of the Maritimes (ibid). These peace and friendship treaties prove significant 247 years later. It is argued that the commercial clam fishery began to emerge in the 1850’s (Sullivan 2007). Often, clams that were sold as bait for more valuable fish species such as cod (ibid). Although clams were perceived to be food for poor people (ibid) they were still an important source of food for many households.

During the 1940’s clams were very plentiful in the Annapolis Basin and surrounding areas, for example, it was common for fishers to harvest as many as eight to ten dories per tide in Gilbert’s Cove alone (ibid). The commercial fishery in the area was so important that the DFO operated a research station in Weymouth North, 30 kilometers West of Digby (ibid). It was also around this time that size limits of 2 inches were imposed in the Annapolis Basin.¹⁸ By the 1950’s, several plants in the Annapolis Basin area were established such as C.E Stanton’s on the north shore of the Basin to facilitate (ibid:4). In the 1960’s, a tidal barrage was constructed in Annapolis Royal (ibid) which is thought to have contributed to a decline in clam populations. As a result re-seeding projects began in an effort to restore depleted beaches (ibid). In 1967 the first clam associations began to organize and address responsibilities of stewardship, and by the 1970’s most beaches had recovered from the slight decline. More plants began

¹⁸ In the 1950’s size limits were removed and for many years afterward there were no restrictions on harvestable clams. Size limit restrictions were somewhat insignificant because of self regulation within the industry. For more information see Sullivan (2007, p.4) available at:
http://www.coastalcura.ca/documents/historic_review_final_report.pdf

opening up increasing competition among clam buyers; clams were being purchased for \$0.60-\$1.00 per bucket with 15 pounds per bucket (ibid). It was also throughout this decade however, that an increasing number of clam harvesting areas began to close in the Annapolis Basin due to bacterial contamination. As a result of the increasing number of closures in the 1980's, several clam processors were investing in clam relay¹⁹ operations and the development of depuration in the area (ibid). Harvesting in closed areas was taking place on a limited basis through relay operations run by Alan Franklin of Alan Fisheries and later on various other buyers (ibid). Furthermore, it was at this time that the first discussions of a depuration operation for the Basin took place (ibid). The results of a survey done in the 1970's conducted by DFO showed that the density of clams in these closed areas were adequate to keep a depuration plant at capacity, thereby proving its economic possibilities (ibid). As noted by Sullivan (2007) closed areas in the Basin continuously increase year after year, due to fecal contamination of water and shell stock.

There were historic high landings of clams from the mid 1970's to the mid 1980's, despite the consequences of the increase in closed areas, the Annapolis Basin was heavily over fished at this time, as clams from that area represented almost 70% of those harvested in all of Nova Scotia (ibid:5). Additionally, the Annapolis Basin was confronted by more changes by the mid 1980's, as a tidal power plant was built that many feel had irreversible consequences on clam populations (ibid). Local harvesters

¹⁹ Container relay is defined by CFIA (2010:2) as: The transfer of shellfish from conditionally restricted or restricted areas in the open status to approved areas for natural biological cleansing in a container using the ambient environment as a treatment system.

postulate that the microscopic spat that moved through the large turbines were killed due to the difference in pressure; furthermore, it is believed that the tidal power plant has significantly increased the level of siltation (silt) on the clam flats resulting in increased mortality rates for clams (ibid). Regardless of the changes that were occurring in the Basin in the 1980's, there was a large increase in the membership of the clam harvesters association. As many as 200 clam diggers signed on as association members in an effort to better understand what was happening in the industry and to try to improve the situation (ibid).

In 1991-92, Ford Fisheries introduced the first depuration plant in the area and processed clams from closed areas of the Annapolis Basin (ibid). Although the harvester association had taken it upon themselves to introduce licensing in the 1980's as a means to determine who could access the fishery, it was still considered by authorities to be an open access fishery. As a result, in 1993 the Department of Fisheries and Oceans introduced limited entry into the clam fishery through restricted access licensing. In 1995-96, despite strong opposition from clam harvesters, the Department of Fisheries and Oceans zoned the province of Nova Scotia into clam harvesting areas. Prior to the new regulation, harvesters could clam anywhere in the province; however, the new guidelines restricted clam harvesting licenses to one clam harvesting area. Subsequently, the harvesters could no longer follow the trend in clam populations and travel to where clams were thriving at any given time. They are now restricted to one area regardless of what the state of the stocks which has created disputes over territory and depletion of the resource stocks (Personal communication with clam harvesters Feb 3rd, 2010).

In 1998, the Department of Fisheries and Oceans required that clam diggers organize into associations. Although an association had already been established as early as the 1960's, it was not officially recognized by Department of Fisheries and Oceans. Department of Fisheries and Oceans may have perceived newly established officially recognized associations to be a formal way for clam harvesters to participate more actively with Department of Fisheries and Oceans (Sullivan 2007:8). It was also at this time that management plans were developed for all clam harvesting areas in the Scotia Fundy Sector of the Maritimes Region (ibid).

Also in 1998, Innovative Fisheries Products bought out Ford Fisheries, thereby becoming the sole depurator for contaminated clams in the Basin, a situation that has continued to present day (ibid). By 1999-2000, St. Mary's Bay, a large quahog growing area that had formerly been unclassified under Canadian Shellfish Sanitation Program, became a closed area instead of unclassified²⁰ (ibid:8). Shortly afterwards, the Nova Scotia Department of Fisheries and Aquaculture issued private aquaculture leases²¹ for 1682 hectares of Crown land beaches in the St. Mary's Bay to Innovative Fisheries Products (Wiber and Bull, 2009b:6). This decision was made despite strong opposition from the Clam Diggers (Sullivan 2007:9) and the consequences of this decision will become prevalent throughout the rest of this chapter. Furthermore, the granting of

²⁰ An unclassified area under CSSP has an undetermined sanitary suitability for harvesting and therefore is not approved for harvesting at present. Closed areas are classified as contaminated, but harvesting is possible as long as a depuration process is available (Wiber and Bull 2009b:10)

²¹ Wiber and Bull 2009b and Wiber et al 2010 note that despite these leases being issued under aquaculture regulations, there appears to have been no aquaculture production of clams on these sites. Instead, harvest of natural stocks has been undertaken for over ten years. See Melanie G. Wiber, Murray Rudd, Lyn Pinkerton, Arthur Bull, and Tony Charles 2010 Coastal Management Challenges from a Community Perspective: The Problem of 'Stealth Privatization' in a Canadian Fishery. *Marine Policy* 34, p. 598-605.

licences and leases was done without the full consultation with affected aboriginal communities, as the government is required to do as a result of several supreme court decisions, most notably *Guerin v. The Queen*, [1984] 2 S.C.R. 335, and *Delgamuukw v. British Columbia*, [1997] 3 S.C.R. 1010.²² Additionally, in 1999, the Supreme Court of Canada upheld the right of Mi'kmaq to fish and sell fish they caught, based on the Peace and Friendship Treaty signed in 1760-61 (Isaac 2001:107).²³

At the request of clam harvesters in 2000 and 2001, several conservation and management efforts were put into operation. Two important clam growing beaches were designated as conservation areas and although it had also been proposed that there be a catch limit per tide of 100 pounds, it was never implemented (Sullivan 2007:9) which proved to have devastating consequences (ibid). Winter closures were also put into affect not long afterwards which restricted all harvesting activities throughout the months of January, February and March (ibid). In April of 2004 at a joint meeting of the Digby and Annapolis clam harvesting associations, overwhelming support by both groups brought the two associations together to combine into one. Also at the joint meeting, the decision was made to organize and protest against Innovative Fisheries

²² The duty to consult is an enforceable legal and equitable duty. The question of whether the duty was fulfilled arises in the context of the Sparrow test (*R. v. Sparrow*, [1990] 1 S.C.R. 1075) for justification. Assuming that an Aboriginal right and its infringement have been established, the courts look at whether the Crown can justify the infringement. One of the considerations in this process is whether the Aboriginal group, whose interests were infringed, was consulted. However, the meaning of 'the duty to consult' is still open to interpretation as there are various ways that the government can justify infringement. The courts have not definitively determined what 'justifiable infringement' is, while the government and First Nations tend to differ on what it means.

²³ For more information on effects of the *R. v. Marshall*, [1999] 3 S.C.R. 533 decision on the eel fishery, see: Wiber and Kennedy (2001) *Impossible Dreams: Reforming Fisheries Management in the Canadian Maritimes After the Marshall Decision*. *Law and Anthropology*. 11, p. 282-297 and Wiber and Milley (2007) *After Marshall: Implementation of Aboriginal Fishing Rights in Atlantic Canada*. Special Volume of the *Journal of Legal Pluralism* 55, p. 163-186.

Products in May of 2004. At the protest a number of clam harvesters from both Annapolis and Digby counties voiced their concern over the low prices being paid for the quahog clams and over depuration diggers harvesting in open areas for low prices, thus undercutting the market and tampering with association management strategies (Personal communication with clam harvesters Feb 3rd 2010). An injunction placed on the protesters by the Supreme Court of Nova Scotia prohibiting the ‘defendants’ from having more than six picketers at the entrance to the aquaculture lease area and warned them not to threaten or interfere with any person(s) from gaining access to the site described on the lease (Notice of Injunction, Supreme Court of Nova Scotia, May 21st, 2004). Not only has this event created hostilities between the clam harvesters and Innovative Fisheries Products, but it has also created a division between open area and closed area harvesters. Prior to the protest, the association organized and made a collective agreement that they would demand 70 cents per pound for clams and furthermore, that all harvesters in Clam Harvesting Area Two would be given the opportunity to harvest for Innovative Fisheries Products. However, Innovative Fisheries Products only selected a few harvesters to work for them and those who were chosen decided that their loyalty lay with the company, rather than the association (Personal communication with clam harvesters Feb 3rd 2010). Due to these circumstances, animosity developed between those harvesters who work for IFP and those who do not. Also in 2004, the United States Food and Drug Administration audited the Annapolis Basin to assess the way in which shellfish was being managed and classified around wastewater treatment plants. They found changes needed to be made and in response, the Canadian Shellfish Sanitation Program administrators established a project team to

undertake a new Canadian Shellfish Sanitation Program and redesign. They were asked to address a growing concern over public safety and federal liabilities associated with implementing the program in light of decreasing resources and increasing pressures (Canadian Food Inspection Agency 2008).

In 2006, the annual leases issued to Innovative Fisheries Products for St. Mary's Bay were to be renewed for a ten year period (Wiber and Bull 2009b:6). Initially, no public consultation was planned for the renewal process and in early 2007 the clam harvesters approach the Annapolis Watershed Resource Committee, the Marine Resource Center and Bear River First Nation for assistance in preparing a public consultation. In response to the proposal by the clammers, members of the Marine Resource Center and Bear River First Nation arranged meetings with the municipality, the province and federal regulators to make local concerns known (ibid). Not only did the attempt to bypass a public consultation create animosity between the community and governing agencies, but the leases were interpreted as a form of privatization²⁴ which has led to deep conflict (ibid:7). After learning that there would potentially be more aquaculture leases issued to Innovative Fisheries Products, clam diggers, municipal governments and environmental organizations engaged in several months of lobbying to put a stop to leases as a whole. Regardless of the communities efforts, in the spring of

²⁴ Innovative Fisheries Products (IFP) has been granted an exclusive right of first refusal to lease closed areas and this has been justified by some regulators by reference to the investment IFP made in a depuration plant. This right of first refusal is the link between closed beaches and privatization (Wiber and Bull 2009b:10).

2007 aquaculture leases²⁵ in closed clam areas of the Annapolis Basin were issued to Innovative Fisheries Products (Sullivan 2007:10). This circumstance led to further escalation of conflict.

To further the difficulties that the clam industry was encountering, the report of the 2004 United States Food and Drug Administration audit on the Canadian Shellfish Sanitation Program was released in July of 2007. The audit drew attention to the level of effluent being released from the Digby wastewater treatment plant when there was a failure²⁶, diminishing the number of areas where independent clambers could harvest. The Marine Resource Center hosted a number of clam harvesting information sessions in 2008 and 2009 to discuss the areas that would be affected by the large scale closures and to try and mitigate the impacts on the industry such as the loss of opportunity to generate an income. In 2009, the United States Food and Drug Administration audit resulted in the development of a Conditional Management Plan, a policy for shellfish areas adjacent to wastewater treatment plants. The Annapolis Basin was labelled a priority area due to the high yield of harvest from the area and export of the product to the United States (Personal Observation Jan 26th 2009). A series of meetings were held at the Marine Resource Center so that the governing agencies could affirm the implementation strategy of the Conditional Management Plan and the new classifications that would ensue. It was at approximately this time that a consortium of

²⁵ To view the locations of aquaculture leases in the Annapolis Basin see:
<http://www.gov.ns.ca/fish/aquaculture/aquamap.shtml>

²⁶ For example newspaper articles discuss closures: May 17th- June 6th (Digby Courier), September 11, 2008 (NovaNewsSnow.com), March 2009 (The Globe and Mail), August 26 2009 (Digby Courier) 2009, April 16th 2009 (Digby Courier)

business men, Innovative Fisheries Products and the Regional Development Authorities of Annapolis/Digby region discussed the idea of soliciting money from the Federal Government Cooperative Development Program. Their objective was set up a co-op so that the independent clam harvesters would buy Innovative Fisheries Products. The initial discussion and development of the ideas did not include the clam harvesters and the proposal fell through because the clam harvesters did not express any interest. In a second attempt by the Regional Development Authorities, they directly approached the clam harvesters about establishing a co-op to purchase Innovative Fisheries Products. Although it was not explicitly stated, the potential was there for government money to underwrite the purchase. The clam harvesters rejected the second proposal for a number of reasons, but primarily because they did not trust the process (Personal communication with Arthur Bull of the Government of Nova Scotia, March 24th, 2011).

In *Morton v. British Columbia* (Agriculture and Lands), 2009 BCSC 136, the court ruled that aquaculture is a fishery and as a result falls exclusively under federal jurisdiction. In essence, this ruling means that the majority of the elements of the British Columbia Provincial aquaculture regulatory regime lie outside the constitutional jurisdiction of the Province (Porter and Ferguson 2010). By December 18th, 2010 a federal regulatory regime was required to be in place to ensure that new and existing aquaculture operations are able to obtain licences to operate lawfully under the *Fisheries Act* R.S.C., 1985, c. F-14. The consequences of this decision are still unknown in Nova Scotia; however, in communities where aquaculture sites are being proposed, there have been demands that a moratorium on aquaculture be put in place until the federal regulatory regime is presented (Public Consultation Information Session, August 26th, 2010, Sandy

Cove, Digby County, Nova Scotia). In September of 2009, managers of the Digby Wastewater Treatment Plant met with the Municipality of Digby and money was put forward for improvements (Personal observation March 16th 2010). In a March 16th, 2010 Canadian Shellfish Sanitation Program meeting, governing agencies revealed that the Conditional Management Plan was being considered for a multi-year plan (Personal observation March 16th 2010). In April, more areas were ‘approved for contaminated shellfish harvesting under licence’, meaning, more clamming beaches are now eligible for depuration (Personal Communication with Nicole Newell, Department of Fisheries and Oceans May 10th 2010). As of the spring of 2010, the Nova Scotia Minister of Fisheries and Aquaculture suspended the use of Regional Aquaculture Development Advisory Committees (RADAC). The Department plans to use community and stakeholder meetings in the future. These types of meetings enable more people the opportunity to participate in the application process (Personal Communication with Bill Whitman of Nova Scotia Department of Fisheries and Aquaculture, October 1st, 2010).

Conclusion

Ultimately there were three conditions that connect one sequence of events to another (Corbin and Strauss 2008:100) and link governing agencies more closely to the clam harvesters in CHA2. They include: (1) sources of pollution which continue to hamper clam harvesting activities; (2) new Canadian Shellfish Sanitation Program regulations and (3) the issuing of Crown land beaches for leasing to a private company. These three circumstances in addition to the complex governance arrangement have led to situational changes and inconsistency. The unpredictability in CHA2 has resulted in

various actions and emotions and based on Coser's definition and the distinguishing features and stages of development that characterizes the escalation of disputes, it would appear that the governing agencies and clam harvesters are in a situation of escalating conflict.

Before an analysis of the conflict takes place, the methodology for gathering data will first be discussed, in addition to the objectives of my research and the approach selected for analyzing results. This, this will be done in the following chapter.

Chapter 5: Methodology

In this chapter I will provide a statement of my research problem and a summary statement of questions generated by the problems that have guided this research study. Then, I will discuss the methods used with a review of their successes and failures, followed by a brief discussion of procedures that were used to collect and analyze data.

Throughout the previous chapter, it becomes evident that the communities and harvesters surrounding Clam Harvesting Area Two are experiencing considerable conflict surrounding integrated coastal zone management and equitable access to resources (Wiber and Bull 2009b:3) I would suggest it is as a result of three significant circumstances.

The first factor is pollution, which has both a spatial and temporal aspect—seasonal fluctuations in naturally occurring contaminants, increasing levels of human pollution sources and wider distribution of environmental contaminants have all played a role. Despite local efforts to collectively manage the clam fishery, Wiber and Bull (2009b:6) report there is a lack of support for the community-based initiatives from both the provincial and federal government. Land –based pollution and seasonal water quality problems have led to occasional problems with high concentrations of toxins in shellfish hampering harvesting activities in the region (ibid). The second factor is the leasing of Crown land beaches to a private company. Despite local opposition, the leases were renewed for the ten year period (Wiber and Bull 2009a) and additional leases have been issued to Innovative Fisheries Products in the Annapolis Basin. The third factor is the newly implemented Canadian Shellfish Sanitation Program-- Conditional Management

Plan. Consequently, reclassifications of the Basin have occurred affecting access for harvest of both ‘open’ and ‘closed’²⁷ area beaches.

Statement of the Problem

The previous chapter on theory established that there are fundamental differences in the definition of the term integrated coastal zone management and in the way that integrated coastal zone management can take place (co-management, community based management). The inconsistency in the definition and practice of integrated coastal zone management is evident in the tension that continues to exist between sustainability and development (Charles et al 2010). Another difficulty that arises and causes opposition is the different ways in which participatory governance, collaborative decision making and power sharing can play out. There are multiple levels in which citizens can participate in governance processes and share power with power holders (Arnstein 1969).

These inconsistencies create barriers that prevent the development and progress of integrated coastal zone management. Furthermore, they create conflict between stakeholders involved in the management of fisheries and oceans which become a particular problem. An example of a conflict that exists within this context is between independent clam harvesters and governing agencies involved in the South Western

²⁷ ‘Open’ areas are areas deemed clean enough (under the shellfish sanitation program) for harvesting without requiring depuration. Closed areas are classified as contaminated, but harvesting is possible as long as a depuration process is available. Closed areas were leased to Innovative Fisheries Products (IFP), and this has been justified by some because IFP invested in a depuration plant. This is why there is a link between closed beaches and privatization (Wiber and Bull 2009a:10).

Nova Scotia clam fishery. The concern is that the actions of these stakeholders during governance processes and the implementation of new management regulations are not consistent with the stated policies of integrated coastal zone management. Instead of transformed integrated relationships of shared power and management between actors, the conflict appears to have escalated and continues to impede their relationship and advancements towards integrated coastal zone management and a healthy clam fishery. There is literature that exists on how integrated coastal zone management should take place and on approaches to environmental conflict resolution. However, to date, no research has been conducted on this specific conflict or dispute resolution processes in which the stakeholders may have engaged. I propose that this conflict situation warrants an examination to establish a theory about the reason it emerged, escalated and continues to exist. Only then, can the dispute be adequately addressed and potential resolved.

Fundamental Questions to be Answered

At the outset of the research, several questions were considered in designing the research methods:

1. To what extent did the government adhere to the common language of sustainability, empowerment, knowledge, participatory engagement, power and shared decision making associated with the fundamental principles of citizen engagement and of conflict resolution?
2. To what extent were the objectives of Integrated Coastal Zone Management achieved?

3. What types of processes were used in making management decisions? Where they integrative and collaborative? Was there a genuine discussion and debate? Did they follow rules of 'good governance'?
4. How and why has conflict emerged between the provincial and federal regulators in CHA2 and the independent clam harvesters?
5. How have the Nova Scotia Department of Fisheries and Aquaculture, the Department of Fisheries and Oceans, the Canadian Food Inspection Agency and Environment Canada dealt with conflict?
6. Why is alternative dispute resolution not being used and why?
7. What are the shortcomings of alternative dispute resolution? What needs to be put into place for it to be successful?
8. What kinds of institutions would facilitate Integrated Management?

Hypothesis

The tools of alternative dispute resolution will allow us to better understand the nature of conflict between the clam harvesters and governing agencies and also some alternative methods to resolve said conflict. Better understanding may lead to more success in implementing integrated coastal zone management.

Step One

My interest in this research area began in 2008 when I became involved with the Coastal Community-University Research Alliance (CURA) as a Masters student. The CURA holds bi-annual 'face-to-face' meetings so that there is an ongoing monitoring and evaluation of place based projects and research. Additionally the project provides

opportunity for capacity building, the sharing of knowledge, for participation in decision making processes regarding significant issues affecting the CURA, the introduction of new participants and a chance for the CURA to engage in local community events. The spring face to face meeting in 2008 was held in May at Bear River First Nation. During the couple of days that we were in the area, an information meeting regarding clam harvesting issues, involving governing agencies and clam harvesters, was being held in Cornwallis, Nova Scotia which is in close proximity to Bear River First Nation. The CURA had been involved in participatory action research with clam harvesters for some time and the meeting was being facilitated by Arthur Bull, a CURA participant and an associate of the Marine Resource Center and all members of CURA were invited to observe it. Given my interest in the matter I was invited to observe a second information session concerning events occurring in the clam industry in June of 2008 and a third one in January of 2009. I was fascinated by the interactions between governing agencies and clam harvesters throughout these encounters. I was curious as to whether the government was really interested in resolving the issues that were being raised, or if they were more concerned with maintaining control both at the meeting and in managing the resource. Following the meetings I began to look into the types of projects and studies on which CURA and clam harvesters had already collaborated and decided to pursue research in the area.

Developing a Research Plan

Prior to beginning my study, I thought about the problem I wanted to examine, questions to be answered, the type of research I wanted to engage in, what ‘universe’ I

would sample from, the various ways of collecting data and methods of analysis. As a student working with the CURA, there was a natural evolution towards a participatory action research approach to the study because this is the method that the CURA uses. Furthermore, much of the research on integrated coastal zone management and the trans-disciplinary management of coastal regions is facilitated by this methodology (Graham, Charles and Bull 2006).

Participatory action research is different from conventional forms of research in three fundamental ways. Baum, MacDougall and Smith (2006:854) explain that first it is directed towards research where the objective is to enable action. Action is attained through a reflective cycle which involved the collaboration of participants in the collection of data and its analysis to determine what action should follow. Next, ensuing actions are further studied generating a continuous cycle of data collection, reflection and action. Second, participatory action research carefully monitors considers power relationships throughout research processes in order to ensure that the power is deliberately shared between the researcher and those being researched (ibid). Thus participatory action research creates an environment where the researched become the researchers; they stop being the objects of study and become partners in research and action with the researcher. The research process and outcomes from the research are determined collaboratively. Third, participatory action research encourages the researched to be active participants in the process (ibid). Ultimately, participatory action research differs from traditional approaches to research in that it does not accept the notion that the world has one single reality that can be subjectively observed and proven through objective scientific experiments, such as those done in laboratory conditions

where all variables can be controlled and manipulated. Instead, participatory action research affirms the notion that human experience can be the basis of knowing and that experiential knowing is a valid form of knowledge that can inform practice (ibid). Moreover, followers of participatory action research maintain that the observers and participants influence the phenomena being examined as they bring with them a set of values that will influence the study (ibid).

The research approach endorses constructivist and transformative learning. Constructivist learning is based on the principle that the fundamental elements that make up the external world are unpredictable and debatable and that individuals have the ability to actively construct their perception of the external world. This learning approach is compatible with the social constructivist paradigm which views the human mind as the source of knowledge (Vernooy and McDougall 2003:115). As a result, (re) discovery and innovation are critical elements of the learning process which are encouraged through collaborative group projects, shared planning, action and reflection. In transformative learning, participants gain a collective knowledge and build a more integrative perspective of the world as some parts of their worldviews are transformed. Vernooy and McDougall (2003:116) argue that transformation is often prompted by communicative learning, but that it is more profound in terms of internalization and transformation of understanding. Expressions of transformative learning in resource management might include for example, new values or patterns of decision-making that are generated and apply outside the immediate arena of the learning intervention (ibid).

Ideally, participatory action research integrates knowledge sharing, systematic enquiry and human interpretations of the world. Furthermore, it deliberately sets into

motion the theory and practice linkage that constructivism highlights as a means of empowering people and enhancing human systems (ibid:115). Participatory action research is well suited to the research problem because it theoretically adheres to the same principles and practices as integrated coastal zone management and the transformative approach to conflict resolution -- the lens through which the conflict situation in CHA2 will be examined. Before beginning the data collection phase, the 'universe' from which data would be collected had to be determined.

Sampling

The 'universe' from which sampling could have taken place for this research includes all of the parties who are members of CHA2 previously mentioned in the chapter on jurisdictional organization: the various divisions within the Department of Fisheries and Oceans, Nova Scotia Department of Fisheries and Aquaculture, Canadian Food Inspection Agency, Environment Canada, open and closed area clam harvesters in CHA2, Annapolis Watershed Resource Committee, Clean Annapolis River Project, Marine Resource Center, Bear River First Nation, the depuration company, clam processors and clam buyers. Given the size of this universe, however, only the players most deeply involved in disputes were selected to participate in the study. These included parties that were extensively involved in the public meetings concerning clam harvesting issues. I was able to identify individuals and their jurisdictional status because a list of attendees was recorded by the facilitator and distributed at each meeting. The preliminary list that was developed included two open area clam harvesters, four upper level Department of Fisheries and Oceans officials, two upper

level Canadian Food Inspection Agency officials, two mid level officials from Environment Canada and three mid level officials from Nova Scotia Department of Fisheries and Aquaculture.

Data Collection

The data for this study was collected using three methods: recording of the information sessions regarding clam harvesting issues, as well as two focus group sessions and several individual interviews. The recruitment strategies of participants, the number of individuals that took part, the order and amount of information gathered and the advantages to data collection methods will be outlined below.

Ethics Review and Approval

When I initially began to develop my proposal and consider methods for data collection, it became apparent that the audio recordings from the information sessions contained identifiable personal information. Methods such as focus group sessions and individual interviews would also include identifiable personal information. Additionally, with permission from participants, I wanted to audio record the focus group sessions and individual interviews to ensure that I captured all of the information that was being revealed. The Tri-Council Ethics Review—the moral principles that the University of New Brunswick abides by-- states that as a researcher I must secure research ethics board approval when obtaining identifiable personal information from any subjects.

It was certain that I needed ethics approval in order to conduct focus group sessions and individual interviews. However, it was less clear as to whether the audio recordings that the Coastal CURA had generated of the information sessions were

within the public domain or not. Although the information sessions were open to the public, at the January 2009 meeting, the facilitator stated that audio recording would only belong to the group of individuals who were present at that time; it would not be distributed beyond the next meeting. After some deliberation with my supervisors and a representative from the Research Ethics Board at the University of New Brunswick, it was determined that the audio recordings of the information sessions that were generated by the Coastal CURA, were not in the public domain. It is for these reasons that I filed for ethics approval from the University of New Brunswick.

Final approval from the University of New Brunswick ethics board was based on a number of assurances. First, that the two sets of data in the form of audio recordings are considered separately. Raw research data generated at the focus group sessions and individual interview was only accessible to me and my supervisor; the information provided was treated confidentially. The transcriptions generated from information sessions were only distributed to research participants who were present at particular information sessions. Otherwise, the transcriptions from the information sessions were treated confidentially. Each participant signed a letter of free and informed consent, they had the opportunity to discuss and contemplate their participation and finally, they had the option to withdraw their involvement in the research process at any time until the thesis is written. In January of 2010 my research was officially approved by the Research Ethics Board at the University of New Brunswick (REB# 2009-135) and shortly after I began to recruit clam harvesters.

Clam Harvesting Area Two Information Sessions

The first data collection process involved observation of the CHA2 information sessions, and analysis of the transcripts from two of these. The first session I attended was held in May 2008, the second in June 2008 and the third in January 2009. The purpose of the first meeting was to discuss and to deal with the large scale closures of clam harvesting beaches taking place as a result of failures in the Digby wastewater treatment plant. The second and third meetings followed up on the first one, in that they dealt with subsequent failures of the wastewater treatment plant and with the implementation of new regulations under the Canadian Shellfish Sanitation Program. Arthur Bull, who at the time was involved both with the Marine Resource Center and with the Coastal CURA, chaired the events. With the permission from every individual involved, the dialogue at these meetings was audio recorded²⁸. As a result of my involvement with the Coastal CURA, I was permitted to attend the meetings and get access to the audio recordings. Although all three meetings that I attended were audio taped, only recordings from the second and third meetings functioned properly and thus they were the two that I relied on for preliminary data. I took detailed notes while observing the sessions so that I was able to recount what participants said and did during the process. I also decided to transcribe the tapes of the two meetings to ensure

²⁸ These recordings have received ethics approval from the University of New Brunswick Ethics board, the file number is REB#2009-135.

accuracy. Both meetings were over an hour and a half in length and the transcripts amounted to ninety-four pages.

Present at the meetings were the MLA of Digby/Annapolis Counties and two Environment Canada representatives, while the Deputy Warden of Digby, a representative of Nova Scotia Environment and a member of the Full Bay Scallop Association were present at the January 2009 Meeting. Those who were present at both sessions were councillors of Digby and Annapolis Counties, clam harvester board representatives from CHA2, clam buyers and processors, Maritimes Region Department of Fisheries and Oceans regulators, Canadian Food Inspection Agency regulators, the Canadian Shellfish Sanitation Program Coordinator, Nova Scotia Department of Fisheries and Aquaculture regulators, Marine Resource Center associates and member of Bear River First Nation, and two students from the Coastal CURA. There were approximately thirty to thirty five individuals present at each meeting.

My attendance at the information sessions was important not only because it was the first time I was exposed to conflict, but also because it was the first time I had been introduced to the way in which government approaches conflict management. The transcripts raised some questions and prompted enquiry as to what the government representatives were trying to accomplish. Consequently, the transcripts raised questions that were followed up in the focus group sessions with the open area clam harvesters and with the individual interviews with government regulators²⁹.

²⁹ See the guiding questions that were developed for the focus group sessions in Appendix 2.

Recruitment and Data Collection from Open Area Clam Harvesters

After having developed a series of questions from the transcriptions of the information sessions, I began recruiting clam harvesters to participate in a focus group session. Initially two clam harvesters were recommended by Marine Resource Center staff as potential participants and these were contacted by telephone. I explained to them who I was, my affiliation with the Coastal CURA and Arthur Bull and the objectives of my research. They were then invited to attend a focus group session to discuss events that had taken place in CHA2 that would take approximately one hour. The two connections were then asked whether they knew of any other clam harvesters who were present at the information sessions that might also be interested in participating. Four additional names were provided and contacted (snowball sampling).

The original plan was that that clam harvesters would be given the choice of participating in two different focus groups, located in the two regions of CHA2 (diggers from Digby/Weymouth area and diggers from Annapolis Basin area). This was for two reasons. First, I wanted to reduce travel costs for a disadvantaged group. Second, I knew from previous research that the Marine Resource Center had conducted there had been tensions between clammers from the two different areas in the past, and I did not want to exacerbate those. However, when I began speaking with clam harvesters from both regions, a continuous cycle of data reflection began immediately. The clammers identified the Marine Resource Center as a mutual meeting space because it was central to harvesters from both regions. It was made clear at this time that the division was no

longer between harvesters from the two regions, but between open and closed area clam diggers³⁰. As research partners participating in collaborative decision making, I responded to their preference and held one joint session with harvesters from both Annapolis and Digby Regions. This allowed them an opportunity to demonstrate loyalty and unity towards each other.

Using snowball sampling and drawing on open area harvesters, I then asked for the names of any closed area harvesters that might be interested in participating in a separate focus group session. Contact information for only one closed area harvester was provided and while numerous attempts were made to get in touch by telephone, however, efforts proved to be unsuccessful. While the snowball effect was a valuable strategy to recruit open area clam harvesters it failed to produce contacts with closed area clam harvesters. Of the six open area harvesters who were contacted to partake in the focus group, five participated in the first February session. The focus group session provided an opportunity for the independent clam harvesters to generate knowledge by actively constructing their perception of events (Baum, MacDougall and Smith 2006) that took place in CHA2. It appeared to be empowering enough that when a second February focus group session was held two weeks after the first one and all six harvesters were present. Although only one hour was requested of the clam harvesters for the focus group sessions, the focus groups continued for over an hour and a half.

³⁰ Open area clam harvesters are also referred to as independent clam harvesters; they harvest from 'open' status beaches only and have the ability to sell their clams to any one of the processing plants. Closed area harvesters, also referred to as depuration diggers are hired by Innovative Fisheries Products to harvest predominantly on closed beaches to which they have rights to through leases. Closed area harvesters can only sell their product to IFP.

Written permission was requested of the harvesters to audio record the discussions to ensure accuracy of the information conveyed. Because consent was granted, the audio recordings were transcribed. In total, eighty four pages of information were generated.

The focus group sessions with the open area clam harvesters were deliberately held before the individual interviews were held with government regulators. The reason for this was to allow the open area clam harvesters to raise questions for which they wanted answers from government. As a result, when the interview schedule was created, the issues that the harvesters had raised were developed into questions for government regulators³¹. This follows the participatory action approach to research because the clam harvesters were being guided through a process of reflection, discovery and action (Vernooy and McDougall 2003:116) which are critical elements of the transformative learning process (ibid).

Recruitment and Data Collection from Government Regulators

The government regulators from CHA2 were recruited a little bit differently because of the nature of their work (9-5 in an office) and access to resources such as the internet. Initially they were sent a letter in the mail and an email and the same letter was also posted at the Marine Resource Center, an establishment that the governing agencies frequent. The letter briefly explained the objectives of my research and invited them to participate in an individual interview at a time and location of their preference. The suggested duration of the interview was approximately one hour. The letter then asked

³¹ See guiding questions that were developed for individual interviews in Appendix 3.

that they contact me. Those who did not respond within three weeks were issued a second email explaining that in analyzing and discussing conflict resolution, it is imperative to understand all points of view. In addition to the email, a follow up telephone call was issued. In one instance, I was attending a larger meeting with a government regulator who had not yet responded, and I took the opportunity to approach the individual in an effort to recruit them. Also, a couple of regulators notified me that they had encouraged their colleagues' to participate, which was very helpful.

In CHA2, of the four Department of Fisheries and Oceans regulators who were initially contacted, three agreed to be interviewed. A fourth Department of Fisheries and Oceans staff person was recruited when the individual demonstrated interest in a brief on the clam harvesting industry that I had written for a Coastal CURA newsletter. Although this individual had not attended the three information sessions on clam harvesting issues, the status of the individual in the department gave them a significant role in the management of the resource. While two Canadian Food Inspection Agency regulators were initially contacted, only one of them agreed to be interviewed. However, the individual who did not participate provided me with an alternative option for a regulator who could take part and this person was contacted and interviewed accordingly. Thus, two upper level Canadian Food Inspection Agency regulators were individually interviewed. Two mid-level regulators from Environment Canada were encouraged to engage in the study and only one consented; however, they declined to be audio recorded. Moreover, the Environment Canada representative who agreed to participate stated that as a scientist he would be unable to speculate on any questions referring to conflict resolution. Consequently, a new interview schedule was developed

to avoid questions that might require speculation³². Finally, of the three mid level Nova Scotia Department of Fisheries and Aquaculture regulators contacted, one was unable to be interviewed due to extenuating circumstances while the other two did not feel that their contribution would be valuable. However, one of the regulators did pass my name on to a Nova Scotia Department of Fisheries and Aquaculture representative that they felt would provide beneficial information and that official was successfully recruited. In total, eight government regulators in CHA2 participated in the study.

All individual interviews were conducted in their place of work between the last week of February 2010 and the first week of April 2010 with locations extending from Halifax to Digby and Yarmouth. Although one hour of time was requested of each government regulator, three interviews were less than one hour, three were approximately one hour and two were significantly over one hour. Written permission was also requested of the government regulators to audio record the discussions to ensure accuracy of the information conveyed. Where I had obtained consent from the informant to record the session, audio recordings were transcribed. Although in one case, an Environment Canada regulator would not allow the session to be audio recorded, I was given permission to take notes throughout the conversation which were then sent to the individual to review in order to correct any inaccuracies. In total one hundred and twenty four pages of information were generated from the individual interviews with government regulators.

³² See guiding questions that were developed for the EC individual interview in Appendix 4.

Advantages of Data Collection Methods

As mentioned above, clam harvesters were recruited through snowball sampling. Trochim (2001) explains that that this method of recruitment is useful when a researcher is trying to reach populations that are inaccessible or hard to find. The clam harvesters fit into this description because their harvesting activities can take place eight months of the year in many hard to reach locations. Additionally, many of the clam harvesters do not have access to the internet; therefore, email was not a good option. Also, due to the age that some clammers began working in the industry, are not all functionally literate. Thus, the snowball approach to recruitment was appropriate.

The focus group technique was selected because it is useful when in depth qualitative data is required to study a specific situation (Merriam and Simpson 2000:153). The concept of the focus group is that participants respond more freely in the security of a homogenous group concentrating on a single problem (ibid). Peek and Fothergill (2009) provide good insight into the use of focus groups as a methodology and I followed their recommendations. First, they suggest that groups of 3-5 participants run most smoothly because of time constraints and the amount of information that participants want to discuss (ibid:37). Morgan (in Peek and Fothergill 2009:37) states that when participants are interested in a topic, are respectful of each other and the moderator wants to give them more time to talk, small groups work best. It is for these reasons that I believe I was successful in recruiting 5-6 independent clam harvesters to participate in two focus group sessions which were approximately 3 hours in duration. Three to five person groups offered a number of other benefits as well: (1) no single person could dominate the discussion and as a result, the dialogue contained more

detailed nuances; (2) everyone had the opportunity to share their insights, yet the number was still large enough that there is diversity in perceptions; (3) as a result of having a smaller group there was more room for disagreement, variation in opinions and viewpoints. Furthermore, interviewer control, time constraints, less detailed narratives, privacy, embarrassment and logistical problems were less of an issue in smaller focus groups (Peek and Fothergill 2009).

There were also epistemological and practical advantages of holding focus groups involving 'pre-existing social groups'. Pre-established relationships within groups allowed for interactions and conversation to flow as though it were 'naturally occurring' data (Kitzinger as cited in Peek and Fothergill 2009:26). Furthermore, the familiarity of the harvesters with one another's social, economic and cultural livelihoods and unity of participants contributed to the ease of discussions. It also provided them with the ability to reflect and recall experiences. Perhaps most important, the focus groups were empowering because of their social support function; they allowed the open area clam harvesters with the opportunity to share their stories which helped develop a sense of solidarity because they understood that they were all experiencing similar circumstances (ibid). Focus groups also allowed for an increase in sample size which provided me with the opportunity to gather the perspectives of many individuals. A significant amount of information was collected while concentrating on data from a specific area of interest (Krueger as cited in Peek and Fothergill 2009).

Peek and Fothergill (2009:30) state that it is best to hold focus group sessions with participants who are of the same status, rank level and professional affiliation. For this reason, a focus group for the clam harvesters was an acceptable method for

collecting data. However, for the members of the governing agencies in CHA2, it was not suitable because they are divided provincially and federally. As a result, they all have different roles and responsibilities. Furthermore, it might have been difficult or uncomfortable for some of the lower level regulators to speak if senior representatives were in the room. As a result, individual semi-structured interviews served as the method for collecting data from regulators. I did not have a formal structured protocol because I wanted to have the option of being able to freely move the conversation in different directions of interest and have the participants elaborate accordingly (Merriam and Simpson 2000:152). The reason for not using unstructured interviews is that when it came time to analyzing the data, the framework of the unstructured technique makes it more difficult to analyze responses than with a semi-structured approach.

Data Analysis

Given the nature of the dispute (timing, location, actors and proceedings which have occurred), examining this conflict from an alternative dispute resolution lens, and more specifically, a transformative perspective, could provide insight into the fit between integrated coastal zone management and longstanding Canadian fisheries policies and the way in which any lack of fit impacts on potential conflict.

The type of data analysis that pertains to this study is inductive research; therefore, I used a grounded theory approach to textual analysis. Grounded theory is described by Trochim (2001:160) as the development of a theory about an event of interest and that the theory needs to be rooted in observation. Grounded theory and participatory action research are complimentary of one another in that the theory drawn

from my observations are only valid because they have been drawn from participants' reflections of events (Baum, McDougall and Smith 2006).

The research began with the raising of generative questions which helped to guide the research and the questions were neither static nor confining. This provided an opportunity for interviewees to follow up on key topics (Innes 1999:160). As data was being collected, core theoretical concepts were identified and then provisional linkages were developed between them. This was achieved by adopting three key analytical strategies identified by Trochim (2001) and Corbin and Strauss (2003).

The primary stage was the coding process which was used in order to categorize qualitative data and to describe the inferences and details of the categories. The open coding system initially allowed for the data to be considered in minute detail so that categories could be developed. Then, a method of selective coding was done where systematic coding occurred with respect to a core concept. The second stage was memoing which was similar to adding entries into a daily journal. I recorded thoughts and ideas which evolved throughout the study. The notes and comments were extensive and increasingly focused on core concepts. With the help of these extensive notes, integrative charts were created to pull details together. These charts helped make sense of the data with respect to the emerging theory. Trochim (2001) suggests that the diagrams can be any form of graphic that is useful at that point in theory development; therefore, I selected a timeline to act as a summarizing device. The timeline or chronology of events also serves as a key section to the following chapter.

After having collected my initial data and having followed these key analytical strategies, I was able to approach a conceptually dense theory because each new

observation led to linkages which then guided revisions that needed to be made in the theory (ibid:160). The grounded theory approach to analysis was useful in this research study because theoretical models were selected to explore how conflicts and conflict resolution unfolded. The grounded theory approach was used to test data against alternative dispute resolution models and return to the data for further examination until a theory of what transpired was established.

The theory that was developed from this grounded theory analysis and the results that have been drawn from the application of participatory action research and participant observation as methodologies will unfold throughout the subsequent chapters of this thesis. Ultimately the fundamental questions outlined at the onset of this chapter will be analyzed and discussed in detail in order to elucidate the conflict situation between governing agencies and clam harvesters in CHA2.

Conclusion

The dispute that has emerged between the open area clam harvesters and government regulators in CHA2 has raised some significant questions regarding the way that conflict is dealt with in integrated coastal zone management and whether alternative dispute resolution or could be used as a method to resolve such conflict. Participatory action research was key to collecting data and influenced the recruitment of the number and diversity of participants. The results that were collected will be analyzed through the lens of a transformative approach to conflict resolution. At the root of the transformative approach are elements which can ensure that respect for democracy, genuine governance and participatory decision making can occur. It seeks to address and resolve structural

issues such as unequal control, ownership, or distribution of resources; unequal power or authority; limited resources and inequalities arising from various political, social and economic orders (Moore as cited in Pirie, 2000:69) predominantly through the transformation of relationships so that they become sustainable.

Chapter 6: Results

This chapter presents the findings from data generated during two information sessions, two focus groups and the eight individual interviews held with government regulators. Each stage of the data gathering informed and generated additional questions for the next stage. It is also important to note, that during data collection, the conflict continued to escalate. For methodological and theoretical reasons association with conflict analysis most of the data are presented chronologically: first, I present data from the information sessions, then data from the focus groups with clam harvesters and finally data from the regulator interviews. In this way, themes, relationships among themes and patterns associated with the escalation of the conflict will emerge as they did during data gathering. I should note that the data drawn from both the focus group sessions and the individual regulator interviews are an exception in that they are not discussed in chronological sequence. There are two reasons for this. During the focus group sessions conversation was predominantly led by participants. As such, meaningful narrative did not emerge directly; instead the meanings of narratives were revealed through exchanges among clam harvesters. This differs from data drawn from individual interviews with government officials who were organized to extract information about specific issues that emerged from the information sessions and that arose again in the

focus group sessions. Thus the interview data are presented by theme rather than in chronological manner³³.

Although, in grounded theory studies, interpretation can be interwoven into the presentation of data (Marriam and Simpson 2000:177) I present preliminary data separately from subsequent conceptual analysis. Therefore, few diagnostic observations and conclusions appear in this chapter. My rationale for this approach is to prevent confusion about what is a finding and what is an interpretation of a finding (ibid). Furthermore, presenting data first and analysis second will enable the subsequent chapter to focus on a comprehensible, interpretation of procedural data in comparison with policy literature on alternative dispute resolution and integrated coastal zone management. This chapter will provide the empirical foundations for Chapter 7, the analysis chapter.

Information Sessions³⁴

Between May 2008 and January 2009 a series of information sessions were held in Clam Harvesting Area Two to discuss the increasing closure of clam beaches. These closures were due both to contamination after failures at the Digby wastewater treatment plant and the results of the 2004 United States Food and Drug Administration Audit of the Canadian Shellfish Sanitation Plan. In June 2008 and January of 2009, the Bay of

³³ Please note that all quotes throughout this thesis are accurate, but in some cases, paraphrasing has been used to highlight specific responses.

³⁴ The term information session was chosen by government regulators to describe the meetings that were held at the Marine Resource Center. Recall from chapter 2 where theory was discussed, that Arnstein (1969:217) describes “informing” as a degree of tokenism. Therefore, the process is a one way process and flow of information with government in control and restricting the input of citizens’ ideas.

Fundy Marine Resource Center was asked to chair information sessions to further clarify and explore some of the issues that had previously been discussed at the public meetings. The information sessions described here both took place at the Bay of Fundy Marine Resource Center in Cornwallis, Nova Scotia with a facilitator, an associate of the Marine Resource Center, who had previous experience in facilitation work³⁵. Although these were “public” in the sense that public employees were there to provide information, in fact the sessions were by invitation only. However, there was broad representation from a variety of interested parties at both meetings. For example, those who were present at both sessions included: councillors of Digby and Annapolis Counties, clam harvester board representatives from CHA2, clam buyers and processors, Maritimes Region Department of Fisheries and Oceans Maritimes Region regulators, Canadian Food Inspection Agency regulators, the Canadian Shellfish Sanitation program Coordinator, Nova Scotia Department of Fisheries and Aquaculture regulators, a Bear River First Nation who is also an Marine Resource Center, other Marine Resource Center associates and two students from the Coastal CURA. At the June 2008 meeting the list of attendees also included the MLA of Digby/Annapolis Counties and two Environment Canada representatives. The January 2009 meeting also included the Deputy Warden of Digby, a representative of Nova Scotia Environment and a member of the Full Bay Scallop Association. At both information sessions, seating in the room

³⁵ Arthur Bull was the non-government facilitator chosen by both the government and the clam harvesters

was organized so that everyone could see the front of the room where an agenda had been posted prior to the meeting.

Information Session 1

At the outset of the June 2008 meeting, the facilitator explained that the purpose of the meeting was to share information and potentially identify common goals and interests. The agenda, developed prior to the meeting, was posted at the front of the room. It contained three items: updates on closures in the Basin access to information such as the availability of test results, and cleaning up the Basin. Attendees were not invited to create, modify, amend, or approve the agenda. They were, however, invited by the facilitator to add additional specific topics albeit under pre-established agenda items. The senior Department of Fisheries and Oceans official began the meeting by asking that time be allotted for a presentation concerning wastewater treatment management in the Annapolis Basin. This government presentation began the meeting. During the presentation, an Environment Canada official explained that Digby wastewater treatment plant operator notifications of when overflows had taken place had led government officials to close beaches to shellfish harvesting. The Canadian Food Inspection Agency government representative then added that government officials had done extensive sampling of shellfish stock in the area, finding both acceptable and unacceptable contamination results. These results, the government officials claimed required the government to implement protocols to respond to test results. While government officials sought a one way meeting process wherein government officials would ‘inform’ those attending the meeting, about new problems and actions taken by

government to deal with them, clambers who had been invited to the meeting, objected and jumped in to ask for additional information relating to their own, personal, economic concerns. One clammer asked, given that government officials now had access to contamination test results, if the southern end of the Basin would be open for harvesting in the summer. Rather than directly addressing the clammer's inquiry or engaging the clammer in an interactive collaborative discussion, a government official exercised official authority and power, by responding that the government's answer would depend on both the meat counts from shellfish and the testing of water quality. At that point, a second clam harvester reminded the government regulators that government officials had agreed to share information with the clam harvesting community about the results of such testing:

Clammer: Ok. I might be wrong, but last week at that meeting in Digby you said that those water samples was coming back and you had to get after Environment (Canada) to go test the meat.

Regulator: Yes, I said that some of the water sampling that we have seen seems to be ok, but there is some instability in the system at the Digby plant so we did go this week to take the sample in Zone 1 and unfortunately the day we went...the day after, the day after we had another event. So, the results at this point are basically meaningless.

Regulator: It's no good. The tests we had, the sample results were taken, and then we had another incident, so we can't do anything with the sample results, they are useless.

Clammer: I disagree. I think that the sampled results aren't useless and you should give us a count when we ask for them.

The clammer, who sought testing information, and the government regulator, with the capacity to provide information, then engaged in a lengthy discussion about

whether the results had been requested or not and whether they had been provided or not.

The facilitator interjected by pointing out, during the meeting, that this discussion highlighted problems interested parties were having gaining access to information, raising questions about transparency. Nonetheless, this matter was not pursued largely because the clam harvesters, who attended the meeting, focused on short-term tangible gain rather than on procedural gain. The clambers wanted to talk about trying to solve the problems that were causing curtailed access to clamming resources, and destroying the future of their economic livelihoods. For example, another clammer then asked if there were any plans to require repairs to the Digby wastewater treatment plant. Instead of engaging with participant collaboratively, and inviting them to become part of the solution, a Department of Fisheries and Oceans regulator responded that the Municipality of Digby and Service Nova Scotia were well aware of the problem, were evaluating the situation, and would be making plans to resolve it. Nothing further was said. No effort was made at this point to include clambers or to ensure that they would be informed about discussion and decisions. This response from government officials served to isolate and exclude participants from the clamming community by consolidating lines of authority and power. Next, a local clam buyer who was also the owner of a clam processing plant raised the issue of market impacts. He noted that after public announcements regarding closed beaches were made on the radio and in the newspaper by government officials, it became impossible to sell clams even though the clams were not contaminated. A clammer agreed, noting that people were being led to believe that shellfish harvested from the entire basin are contaminated.

Although the facilitator invited government regulators to respond to the clam harvester's statements, the government officials did not acknowledge their concerns. The facilitator tried to integrate the discussion into the agenda by relating these concerns to the agenda item 'cleaning up the Basin'.

A lengthy technical government official power point presentation followed, wherein the official jurisdictional and decision-making powers of the Department of Fisheries and Oceans, the Canadian Food Inspection Agency and Environment Canada were discussed and the designation of beach statuses under the newly implemented Conditional Management Plan was explained. Government officials emphasized that the new government policies and procedures were intended by government to provide assurance to consumers. Consumer interests were prioritized; the livelihood interests of clam harvesters were not highlighted as a central concern during the government presentation. Instead, the presentation stressed the value of regulators working collaboratively the Nova Scotia Department of Fisheries and Aquaculture, the municipalities of Annapolis and Digby and with clam processors. It was obvious at this point that a number of clammers attending the meeting felt isolated and their collective clamming experience and expertise were being dismissed. A lengthy discussion followed, centering around the responsibilities of Environment Canada [who are responsible for classifying shellfish growing area] and the effectiveness of government models to predict contamination flows in any given area. In essence the clammers, who collectively had 180 years of experience, challenged the 'superior' knowledge and expertise of government officials. Clammers expressed surprise that the Environment Canada official had data to enable government officials to predict contamination:

Clammer: We haven't even got the counts yet for what you guys have been doing in the Basin past June the 3rd...

He went on to explain that the clammer's felt 'blindsided' (isolated from information, excluded from decisions) by the closures [resulting from the new Conditional Management Plans]. He also took issue with the fact that the human element of the Canadian Shellfish Sanitation Program had not been considered much less incorporated in a collaborative, respectful manner:

Clammer: But nobody seems to look at us; they look at the possibilities of the contaminants in the water instead of... looking at the human aspect of it... you know, if you start working with the people instead of against [them], you might get a lot better response. I mean we are not un-intelligent people, we do understand that you can't have a product out on the market that isn't above...the food health standards.

The clam harvesters pointed out that given the closures and the inability to coordinate the Conditional Management Plan with the harvesters' management plan [which entails leaving certain open beach areas to replenish without harvest], shellfish stocks on open beaches had been destroyed by over digging as the clammers had nowhere else to go and no other livelihood options available to them. Timing was also raised by clammers as an issue. The clammers asked why it took the government so long to implement the new protocol given that the United States Food and Drug Administration³⁶ audit took place four years earlier.

³⁶ Note: The audit by the USFDA is a normal operating practice. Canada has an agreement with the USA dating back to the Bilateral Shellfish Agreement signed in 1948. For more information on the CSSP Conditional Management Plan visit: <http://www.inspection.gc.ca/english/fssa/fispoi/man/cssppccsm/shemolalle.pdf>

Instead of acknowledging the value and importance of clam harvesters' human and economic interests or encouraging a collective process to problem solve or search for mutual solutions, Government regulators adopted a top down, authoritative, power over approach. They responded by pointing out that, earlier, they had been unaware of the magnitude of contamination from the failures from the Digby wastewater treatment plant. Now that they had the scientific data to confirm its significance, government officials were acting on the problem and taking action to address failures in lines of communication between the wastewater treatment plant operators, the municipalities, the province and the federal agencies. Clammers' claims to be able to contribute experiential knowledge and concerns about being opposed rather than included were not discussed further, thereby silenced.

Instead, the discussion shifted to the economic concerns of a major industry in the area: a depuration company.³⁷ A member of Bear River First Nation who is also an associate of the Marine Resource Center raised the question of private corporate access to the clam stocks in the area by asking whether any of the new closed areas would be subject to depuration leases granted to a commercial company (as opposed to working with the clammers to maintain the health and safety of clam resources). A Department

³⁷ Recall from chapter 3 on Jurisdictional Organization, a 1995 Memorandum of Understanding permits the Nova Scotia Department of Fisheries and Aquaculture (NSDFA) to lease crown land beaches to private companies for the aquaculture of species such as clams (Wiber and Bull 2009b). In 1999 the NSDFA issued private aquaculture leases for 1682 hectares of Crown land beaches in the St. Mary's Bay, a large quahog growing area, to Innovative Fisheries Products (IFP) (Wiber and Bull, 2009b:6). In 2006 the annual leases issued to IFP for St. Mary's Bay were renewed for a ten year period (Wiber and Bull 2009b:6). In the spring of 2007, six additional aquaculture leases in closed clam areas of the Annapolis Basin were issued to Innovative Fisheries Products (Sullivan 2007:10).

of Fisheries and Oceans official deflected this reference to privatization by citing the definition of a prohibited zone, stating that there is no harvest of any kind permitted on beaches of that status. The member of Bear River First Nation was not reassured and reiterated that private exclusive leases were a concern to clammers, given the ten year aquaculture renewal of existing aquaculture leases. The Bear River First Nation member noted that the clam harvesters were not only being excluded from depuration beaches but they were also being hit with significant beach closures. She added that these clammers were not being granted access to information pertaining to the closures and stated that she was not sure whether the reluctance of government officials to convey information was a strategic move on part of the government regulators, or a simple lack of communication. No action was taken at this point to address trust and communication of information problems raised by the audience.

Instead, the focus returned to the government power point presentation on the Conditional Management Plan. The presentation sought to ‘clarify’ why certain clamming areas had been designated under new classifications. The presenter created quite a reaction among the audience by suggesting that the Annapolis Basin was a “pilot area” for the new Canadian Shellfish Sanitation Plan protocol. A session participant asked for clarification of the term “pilot area”. The Department of Fisheries and Oceans official explained that there is a proposed national government template for the Conditional Management Plan and the Annapolis Basin had been designated through the United States Food and Drug Administration audit as a priority area. As a result, government officials had decided that it would be first to implement the Conditional Management Plan template. A clam harvester took issue with this approach, objecting to

that the Annapolis Basin was a place to experiment, because the consequences of government experiments would jeopardize his personal livelihood. He also indicated that he felt he was being patronized by government regulators. Instead of engaging with this participant and with the audience in a collaborative search for the solution, and instead of acknowledging much less responding to the clammer's concerns, the concerns were isolated and thereby silenced when the discussion was re-directed towards the government power point presentation after another session participant asked about a Conditional Management Plan classification term.

After the government power point presentation, a councillor from Annapolis County raised the issue of frequency of water quality testing. The councillor pointed out that if closed beaches were only tested by government to see if they could be reopened once every three years, this might unnecessarily keep closed areas under the control of the depuration company at the expense of open area clam harvesters. He also raised the topic of the "pilot area", reemphasizing that application of the new Conditional Management plan resulted in large scale closures. He asked if government officials could have considered providing some form of compensation to clam harvesters impacted by these changes. The session chair acknowledged the compensation question, but deflected further discussion at that point by asking that the issue be dealt with later in the evening. Instead, the chair shifted participant attention to consider processes that could be put into place to improve communication flow not only between government departments (i.e. Silo's), but also with government departments and those whose livelihoods are dependent on clam harvesting.

A Department of Fisheries and Oceans regulator responded in a manner designed to reiterate government power and control over information by suggesting that it was within government mandate to provide information to clam processors and buyers concerning closures after a waste water treatment plant spill, but he also made it clear that government ability to adhere to that mandate would also require the three Canadian Shellfish Sanitation Program regulatory partners to be more transparent with information. This led to a discussion among participants regarding the most appropriate time to contact people in the clam harvesting industry after a waste water treatment plant spill incident, as well as a discussion about who people with clamming interests could contact for more information. A Department of Fisheries and Oceans regulator then suggested:

...that all the federal governments and provincial governments work collaboratively on all of these issues. And if the Department of Fisheries and Oceans office in Yarmouth is prepared to funnel the information there and be the focal point where the industry can call and say: What's going on? What's the problem? Is there any information you can update? Because there is no problem with [the regulators] communicating with each other, [but] they don't know how to communicate with the outside world very quickly...

Once again, a potential opportunity to work collaboratively with community members who have personal economic interest in clamming was missed. Indeed, the member of Bear River First Nation commented that the Department of Fisheries and Oceans have a lot of relationship building to do to regain trust, but also that the other two Canadian Shellfish Sanitation Program government partners and the province as a whole must make far better efforts to collaborate and to share information with people whose livelihoods would be impacted by government decisions. The power point presenter then attempted to re-direct the discussion back to government's Conditional

Management Plan to explain how government officials share management jurisdiction. Participants, however, resisted the redirection and continued to discuss how information could be distributed once a failure occurred in the waste water treatment plan and sought information about who, among the three Canadian Shellfish Sanitation Program partners, could be contacted with questions. The facilitator, meanwhile, rather than encouraging the discussion, suggested that not all of the communication of information problems could be resolved in one evening. He then tried to direct discussion to the next agenda item: the cleanup of the Annapolis Basin. In response to the issue, a processor and former clam harvester returned again to the question of the frequency and adequacy of testing. A participant stated that tests he had done outside his plant in Port Wade had met health standards and that the test results were no different today than they had been 58 years ago, yet the government has shut the area down, claiming it to be contaminated. The session chair at this point, in a manner consistent with interest-based models of engagement³⁸, attempted to redirect attention to future solutions by asking how such problems could best be addressed to create positive change. The councillor from Annapolis County responded that first and foremost, the problem of the Digby sewer system would have to be fixed. Other participants agreed that this was an issue that required immediate attention.

The session chair then returned the attention of the meeting to the issue of compensation that had been deferred earlier in the meeting. He informed the meeting

³⁸ See Fisher, Ury and Patton 1991

that the Marine Resource Center had been working with the CHA2 clam harvester association to develop three proposals. The first one, which suggested that EI requirements be eased, had been sent to the MLA and MP, and to the responsible Minister, but that the association was still waiting for a response. The second proposal was to the town causing the pollution problems about the possibility of compensating clammers' through liability insurance. The third proposal still required work, but it involved a number of potential funders compensating clammers by hiring them to participate in enhancement and conservation on beaches. The Department of Fisheries and Oceans official was then called upon by the session chair to comment on the issue.

In response, the Department of Fisheries and Oceans regulator had little to say about compensation of clammers. He preferred instead to return to the wastewater treatment plant pollution problem and to wider policy issues of more interest to government officials: the need for Coastal Zone Management Plan; the need for a clear policy mandate to enable the Department of Fisheries and Oceans to engage in watershed management and; the need to clarify the role that the Department of Fisheries and Oceans could play in the process. While it was clear that none of these issues would address clammers immediate problems, the official proposed a future session to address these issues through citizen engagement at the local level, although he also stressed that citizen engagement should follow a "US model". This led one participant to ask whether the Canadian Shellfish Sanitation Program was responding to "globalization" or whether the Plan was intended to address pollution for the health, safety, and welfare of residents in Nova Scotia. The government regulator maintained that government protocols would have to be a balance of the two since, in order to allow shellfish from

the area to be sold on the global market, a system had to be put into place to ensure safety of the product. A Clean Annapolis River Project representative then asked a question about collaborative consultation with First Nations peoples:

Just looking beyond this specific incident and this specific issue, in the presentation you mentioned strengthening the CSSP and the need to develop conditional management plans. Is the indigenous group being involved in that process given that you are piloting here?

Again, an opportunity for discussion of collaborative inclusion is missed.

Instead, a government regulator returned to the question of water quality testing and sampling:

It all depends on what we talked about, sampling? Third party sampling? We could see harvester groups, or maybe CARP getting involved in the sampling, but that would have to be negotiated and developed.

He further explained that clammers would certainly be involved in those discussions as they were being directly affected. In response, clam harvesters raised concerns about whether or not such discussions would be genuinely inclusive and collaborative as opposed to simply resulting in yet more imposed solutions. One clam harvester noted sourly that in terms of being involved any newly developed management plans would be thrust upon the harvesters. Another clammer agreed that new plans would be dictated to them. A government regulator replied in a rather contradictory way, stating that the Conditional Management Plan would not be dictated to the harvesters, but then justified limited collaboration by pointing out that the Plan for Digby had to be ready by the end of the month. He went on to add that it would not be a static document but rather a pilot project that would identify what needed to be done. At that point, the facilitator tried to focus discussion on moving the Conditional

Management Plan forward, as if an agreement had been reached, such that next steps in the process could be identified. A clam harvester urged instead, that his question be answered: Was there going to be a change in sampling frequency from every three years to a more frequent testing and if so was it currently in the Planning? A government representative confirmed that contracts have been drawn up to have five samples done on an annual basis. The session chair once again encouraged forward momentum by asking that people comment only on strategies for moving forward as it was nearing the end of the session and issues needed to be framed up for the following information session. A representative from the municipality of Digby then spoke up to identify concerns about lack of inclusion, transparency, and exchange of information in connection with construction and implementation of the coastal management plan. He stated:

...I can speak for our municipality, but our municipality has not been included in this process, this management process. So that is just one thing I would like to state, and to have you guys take back and look at. I don't know if our municipality represents all of them or not, but I do know that our's has not been included in this management model. The second thing I would like to say that municipalities need to be included into this, because we are the ones that make the decisions to spend millions of dollars...

Rather than inviting further discussion engaging in a collaborative problem solving process to discuss how the municipality might wish to be included, a government regulator took issue with the comment made by the Municipality of Digby representative by claiming that he thought that everyone who needed to be involved in policy discussion was at the meeting. This served to isolate the municipality and to dismiss, as unimportant, its concerns about being excluded from policy formation processes. While the government official agreed that the Municipality was not on the

priority list for information, he said that “eventually the information would come through” and would be provided to the municipality “one on one”, given that representatives from the municipalities were also often included in “conference calls”. He indicated that in his view, this was sufficient to constitute government being fully open in communicating with the municipality.

As the meeting began to wrap up a clammer suddenly asked for tests results that had been collected from Deep Brook and asked a government regulator to provide the results for that area. Some discussion ensued on the length of time it takes for Deep Brook to flush itself after a failure of the waste water treatment plant. Finally, a time and date was established for the next information session which was to take place within a few weeks and the meeting was adjourned.

Information Session 2

The next meeting, held on the morning of 27th of January, 2009 seemed to fulfill the clam harvester’s predictions. The meeting followed a pattern similar to the meeting before it. For example, the pre-determined government agenda failed to highlight opportunities to discuss clammers concerns. Instead, agenda items focused on the conditional management plan and new beach classifications would be explained by government officials in a power point presentation, followed by government updates on beach closures and progress made to ensure that information sharing would be made available about beach closures. Participants were, however, then invited to add to the agenda. Additional items -- cleaning up the Basin and the question of compensation— were added.

The meeting began once again with a government authority—this time a Canadian Food Inspection Agency representative telling the audience about government plans and decisions. More particularly, she told the audience that the conditional management plan would be implemented by the end of the summer [2008], in preparation for a United States Food and Drug Agency audit. While the audit was delayed and probably would not occur until May of 2009, the government official asserted that the Conditional Management Plan would be implemented before that time, as it had been passed by all the Canadian Shellfish Sanitation Program partners and was thereby ready for completion and implementation. The next twenty to twenty-five minutes were taken by the Canadian Food Inspection Agency official and a Department of Fisheries and Oceans representative explaining the new government classification standards to be imposed.

After a lengthy presentation, a participant asked when the last time the Annapolis Basin had been tested following the last failure of the waste water treatment plant in December. The Department of Fisheries and Oceans representative responded that no tests had been conducted at the time, and went on to explain that the last incident had occurred only ten days before the end of the clam harvesting season so further testing was not required, in the governments' view. The participant objected by stating that such tests not only affect clams, but also the scallop industry. The government regulator corrected this, stating that in the Annapolis Basin, the government closures were imposed for all bivalves except for scallops. The Department of Fisheries and Oceans and Canadian Food Inspection Agency representatives continued with their

presentation and informed session participants that if any more information became available, they would come forward with it.

One frustrated clam harvester retorted that the reason everyone was present at the meeting was to discuss methods for decreasing closures and resolving the problem with wastewater runoff. He then pointed out that if tests were done as they were supposed to be, seven days after a waste water treatment plant failure; he could have been back to work digging clams. Instead, he was out of work for two months and was unable to pay his bills. The Department of Fisheries and Oceans presenter responded to do this human, personal concern by dismissing its relevance, reminding the clam harvester that the Conditional Management Plan was being implemented all across Canada. The official then pointed out that the Canadian Shellfish Sanitation Program partners were being provided daily with more information to enable them to better assess the local situation. This response did not satisfy the harvester, who pointed out that first the government forced clambers to buy a license, then imposed zoning and now, as a result of wastewater treatment plant failures and the newly imposed government Conditional Management Plan regulations, the clam harvesters in clam harvester area two were being limited to clam harvesting in a very small area. The clammer pointed out that this not only depleted the resource but also was not providing them with enough income to survive. Furthermore, he argued that beaches set aside under lease to the depuration plant, do not benefit all clam harvesters. The Department of Fisheries and Oceans official responded that, although he did not disagree, his official mandate was to “merely present the facts”.

After some further exchanges between the harvesters and the two government presenters the session chair tried to redirect the meeting away from discussion of the concerns of harvesters back to the government power point presentation. Instead, a clam harvester revisited the question of timing for implementation of the new protocol. He asked why the new protocols were not discussed with harvesters in 2004, as he had information that new classifications were being implemented in the United States at that time, which meant that the Canadian government would have been aware that changes were going to take place. He also asked if the government officials could confirm that the overflow from the Digby waste water treatment plant had been treated with chlorine before being expelled. If this was the case, he asked, weren't the new protocols an overreaction? The harvester followed this up by asking once again for the meat and water data that they had been promised numerous times by government officials. The Canadian Food Inspection Agency representative had prepared some information on the issue and was able to offer a pertinent summary of shellfish samples, an exchange of information and a set in the direction of transparency for which the clam harvesters were grateful.

After the sharing of data, a few minutes were given to participants to enable them to discuss freely amongst themselves the new classification areas proposed by government and information about different systems of sewage treatment. The facilitator pointed out that there appeared to be consensus about the importance of cleaning up the Basin and noted that if the Basin were to be cleaned up, classifications of clamming areas could change. Some exchange between government regulators ensued which made it clear that once repairs were made to the Digby waste water treatment plant, effluent

flowing into the Basin would be properly treated with the end result that closures would occur only under really unusual circumstances. A session participant then asked how long it would take government officials to reclassify clamming areas once the waste water treatment plant was cleaned up and data revealed that affected areas were no longer contaminated. A government regulator replied that although there were no policies in place to limit the time to reopen, government committee meetings take place twice a year and that the regulators could know sooner if new information was provided. The official said that reclassifications could be made after the information was analyzed by government officials after an assessment had been completed.

A clam harvester noted that Environment Canada was currently only testing closed areas once every three years. Consequently, in a perfect world, he claimed, even if there was not another spill, it might be 23 years before closed beaches were re-opened to clam harvesters. He reminded the regulators that open area clam harvesters had been losing significant harvesting territory because of pollution. He also commented that, while Environment Canada was making important decisions affecting the clam harvester livelihoods, those government officials were not at the information session. A government regulator responded that Environment Canada officials were considering a new program whereby five tests would be taken annually. Someone then asked whether it would be only government employees who would collect the samples. The response was that, there could be numerous types of arrangements. The government regulator gave the example in Southern New Brunswick where each water-way has the authority to collect samples on behalf of Environment Canada, but Environment Canada controls the final assessment.

At this point the clam harvesters raised numerous questions. They wanted to know when the Digby waste water treatment plant would be fixed. The previous summer [2008], beaches that they traditionally relied on for harvesting were shut down for two months as a result of spills, yet tests were not undertaken by government to re-open the sites because it was “too late in the season”, something the harvesters disagreed with. As there were still closures in place from the previous season, harvesters asked when the beaches would re-open for the current season and, whether or not the flats would be tested prior to the opening date. While a Canada Food Inspection Agency employee reported that the government department had been working with Environment Canada to verify that water quality and shellfish were acceptable before the season opened, harvesters wanted to know why, if the area was still a pilot project, tests were not being done on a daily basis. Finally, the clammers raised the issue of compensation for lost livelihood.

At this point, a councillor from Annapolis County wondered why there was no one at the meeting from the Town of Digby to respond to relevant questions. He then proposed a potential cooperative solution by asking whether private inspection of the Basin, for example by the harvesters association, might be a viable option. In response, a Department of Fisheries and Oceans representative asserted his jurisdiction and authority by maintaining that government protocols would need to be put into place before private testing could become a viable option for the area. The councillor then introduced new ideas by explaining that the Town of Digby was currently examining different options and working with service Nova Scotia to deal with the waste water treatment plant, but also noted that solutions would require significant capital

investment. Nevertheless, he assured participants that the Town was taking the issue very seriously. He then stated that the objective of all the new regulations and closures was to keep the Canadian shellfish market open as eighty percent of the product was exported outside of the country, mostly to the United States. He noted that, Canada must adhere to international food safety standards.

The session chair thanked the Department of Fisheries and Oceans official for his earlier comments about government protocols but returned to the meeting and potential solutions of third party testing proposed earlier, noting that some people from Eastern Charlotte Waterways in New Brunswick had been invited to the Digby area to participate in a clam workshop. He said it would be interesting to see how far along New Brunswick had come in terms of building local capacity. In that province, Eastern Charlotte Waterways, a public consortium, had been certified by the federal government to do water quality testing. He then muddied the waters in terms of forward momentum by asking if local markets could be exempt from the international water testing regulations. This led to a discussion of “double standards”, or a “two tiered system” in the domestic versus international market safety. A government representative reiterated that the Canadian Shellfish Sanitation Program is not just designed for export markets and said that, local markets would not be exempt from government policies. Furthermore, he stifled further discussion of the option by stating that the government of Canada would never accept a two tiered food safety standard.

A clam harvester responded to this by stating that he felt there was already a two tiered system in place, as government in the USA had been implementing new classifications since 1995, yet in Canada the clam harvesters had only just found out

about them in 2008. He stated that when he was president of the clam harvesters association:

...they kept talking about the United States audits... I didn't even know nothing about it I just heard rumours from DFO, there's gonna be an American audit, there's gonna be an American audit, they are going to check the shellfish...

The clammer suggested that, as a result of United States interests, the clam harvesting industry in Canada had been unfairly inundated with significant changes and closures.

A government regulator replied that the United States market was very restrictive and the Canadian government had negotiated with the United States government to create a more flexible protocol. He asserted that inter-governmental negotiations had produced the delay and that, as a result of those negotiations, the Conditional Management Plan was created. The federal government officials said he understood harvesters were frustrated (thus acknowledging their emotions) but defended the federal government position by reiterating that the Canadian protocol was more flexible than the United States approach. A harvester then asked why the government had not prepared some sort of compensation package for them if they had known for so long that new regulations would be imposed affecting their livelihoods to which the government regulator responded: "I hear you". Although the response indicates a non-official human response, no further steps were taken at this point to engage the audience in a collaborative problem solving approach to address the issue.

After some further discussion of domestic versus international regulations, the session chair asked that the focus of the meeting refocus on the next items on the

agenda: information sharing, access to test results, and transparency. A session participant then said that he understood that if within nine days of a waste water treatment plant failure, a clean test is recorded the industry could re-open for harvest and sale. However, that, if after the ninth day there was another discharge, the industry would be informed of it. He explained that it was important for parties in the clam harvesting industry to be informed if there is a second discharge during the first closure so that they can make new arrangements. A Canadian Food Inspection Agency representative assured the speaker that the government could commit to disclosing that type of information to parties in the clam harvesting industry should it happen again; the Canadian Food Inspection Agency representative did not know how the Department of Fisheries and Oceans would pass the information on to harvesters, thus passing responsibility to a different federal department. A Department of Fisheries and Oceans representative replied that their department was still trying to work out “bumps” in communication with clam harvesters. He did note, however, that Environment Canada was an integral part of the process as federal representatives would have to do an assessment before the Department of Fisheries and Oceans was even notified, thus passing information exchange responsibility on to another federal department. After having implicated Environment Canada as a cause of delays in the information reaching parties in the clam harvesting industry, the Department of Fisheries and Oceans official went on to acknowledge that regardless of the “bumps”, the information should be passed on to clam harvesting industry representatives immediately once it had been received by the Department of Fisheries and Oceans. This led to a discussion of information flow difficulties and to clambers questioning the reliability of government

testing. Government representatives at the meeting deflected responsibility by replying that “Environment Canada deals with water classifications”. This led another session participant to complain about the obstacles addressing problems given that Environment Canada was not present at the meeting.

A clam harvester then made the statement that if Canada was going to adopt United States standards for food safety, perhaps the federal government could also consider adopting the United States environmental standards. The session chair agreed but returned to focus on the meeting to the issue of compensation. In this instance the chair seemed to be responding to the power imbalance between the clam harvesters and government officials at the meeting. He rebalanced the power differential by encouraging discussion of matters of interests to the clambers, and by commenting that in the United States if there is a closure, compensation is automatically provided. He suggested that the concept should be considered in Canada. A Department of Fisheries and Oceans official replied testily:

I just want to clarify we are not adopting US standards. I think we made that point. We are adopting food safety standards that are Canadian and they are compatible with US standards and they are of the same level as US standards. We're not doing this because of US standards. We have Canadian food safety standards.

He elaborated by saying international food safety standards have evolved and it is not fair to suggest that government officials were imposing the new regulations of government standards created by United States officials. A clam harvester responded to this by redirecting attention from government jurisdictional issues to the matter at hand by asking directly whether the clam harvesters were going to be compensated for government closures.

At this point, a Nova Scotia Department of Environment representative deflected attention from the issue of compensation to a matter of more interest to government regulators: government regulation and control. He explained that his department was the issuing body responsible for approvals of sewage treatment plans. He noted that the government had put discharge limits in place that would dictate how strong effluents could be. Whenever a waste water treatment plant did not meet the government conditions it would have to notify the Nova Scotia Environment officials, who have authority and power to take corrective action. When asked how long it would take the government to respond and to fix the effluent problem, the response was yet another deflection of responsibility: “the Town of Digby will have to respond to that question”.

The meeting was then turned over to a councillor from Annapolis County who once again raised the issue of compensation for clam harvester. He explained that the clam diggers had asked him to attend in order to present a motion in the form of a letter that he had written:

... we feel that it's more the political side of things that needs to get wise to these questions of compensation... on behalf of the Municipality County of Annapolis and in particular the residents of our area, I am writing this letter... Although this initiative enhances sanitation processes for increased public safety with respect to shellfish, it has also resulted in more frequent closures of the clam flats...[and has] impacted on the livelihood of the clam diggers.

However, once the letter was acknowledged by session participants, instead of responding to the motion, another participant returned the discussion to the problem of information sharing. He decried misinformation he had received in the past and commented that it appeared Environment Canada officials were making assessments on the basis of erroneous data, giving recommendations to the shellfish working group

decision making committee of the federal government who were then adopting them without any scientific justification. He called on the government officials to share information and data justifying their reasons for beach closures. A government representative silenced this line of discussion by assuring everyone that he would follow up with Environment Canada to see when the information would be provided.

The conversation then took another shift when a scallop harvester raised a concern about his industry:

We've been looked at the closures for the last year, and we didn't realize that they affected us in any way because [we don't] catch scallops in the Basin, only for a couple of weeks in January. Then in the last month we've got notice that you got to watch your water, only from certain points. Well, that's fine but, when the Basin is open, if the boat starts washing where they've always laid [up] and done it, and then you have a closure, we don't hear tell of these closures until quite a few days later... [Boats are] scalloping and then when they come back to the wharf they could have a whole weeks scallops... This is kind of dangerous so we've got to be notified by somebody the minute these closures are put into effect...

He suggested that if they are not notified about contamination, someone in the scalloping industry would get into trouble as a result of contaminated harvest.

Furthermore, he said, the scallop harvesters do not know the names of land marks where closures are being made; they need the latitudinal and longitudinal coordinates. A government representative assured the scallop industry worker that harbours and specific coordinates would be provided. However, this generated an exchange between Canadian Food Inspection Agency officials and the Department of Fisheries and Oceans regulators about jurisdictional authority and control: which was the governing body and whose responsibility it was to contact industry representatives. Finally, it was decided that Department of Fisheries and Oceans officials would pass along closure information.

A clam harvester asked whether new regulations were going to influence the depuration company's ten year leases and whether the depuration company would have access to new beaches recently declared restricted. A Department of Fisheries and Oceans representative stated that their department were open to discussing possible ideas as how they work something out that would be best for all concerned. Despite the fact that the provincial government had granted Innovative Fisheries Products a "first right of refusal" on any closed beaches in the area, as a result of an investment in the depuration plant, the government officials claimed they were open to anyone applying for those beaches and to any new ideas as how they could be managed. The clam harvester then asked if, given that beaches were being leased for ten years to the depuration company would they as lease holders lose control of the beaches because of their newly restricted status. The question was passed on to a representative of the Nova Scotia Department of Fisheries and Aquaculture because they are the government authority responsible for issuing leases. This Nova Scotia Department of Fisheries and Aquaculture representative stated that the only change that could impact the status of the lease would be if a beach were to be upgraded to 'approved' for open harvest, so there probably would not be any change in the lease arrangement held by the depuration company.

The session facilitator then updated participants on proposals discussed at an earlier meeting and that had been forwarded to the federal government and to the Canada employment center about changing the EI requirements. The facilitator reported that in neither case had they received any reply. This returned the discussion to the issue of compensation. A clam harvester stated that after a major closure the harvesters are

given one or two small areas to harvest. He noted that, although government officials seem to think they are doing the harvesters a favour, those areas were being devastated by over harvesting. He offered a number of practical, tangible solutions by suggesting that if government was purposing to shut the industry down, the government would need to buy back some licences. He also suggested other options such as reducing the number of harvesters, or offering harvesters a package so that they could be paid to reseed the beaches rather than deplete them. He said, both ways, the clam harvesters needed to earn a living and it was not possible for them to do so in harvesting off of two small beaches. A few comments were made, specifically by clam harvesters that the approach should be to restructure the industry and work on rehabilitating the clam market. Another clam harvester asked a Department of Fisheries and Oceans representative if he had put forward any proposals on behalf of the harvesters about compensation as he had promised to do at an earlier meeting. The Department of Fisheries and Oceans official replied that the issue has been mentioned and discussed with the two other Canadian Shellfish Sanitation Program partners; however no decision had been made by government at the political level. He also suggested that the issue would be an uphill battle for clammers because they are competing with claims being made for access to resources from various other fishery sectors. There was more exchange between participants about identifying the economic value of the clam harvesting industry to communities in the region and working together to try to ensure proper management. Nonetheless, despite a general consensus among clam harvesters about these issues in principle, no tangible agreement was reached with government officials.

Despite the absence of a tangible agreement on matters of substance or of process, the facilitator was trying to wind up the meeting at this point. Yet, the clam harvesters returned to the issue of testing procedures after a waste water treatment plant failure. Because no officials from Environment Canada were present, other government representatives tried to address the questions making reference to “experience and hydrological studies”. A Department of Fisheries and Oceans representative reiterated that the Department of Fisheries and Oceans could coordinate having the results released but the results were not within Department of Fisheries and Oceans authority and mandate to provide. A Canadian Food Inspection Agency representative then stated that he had 25 copies of a summary of shellfish counts from beach sweeps completed in the region between May and September. The official provided copies to the clam harvesters association. The facilitator then ended the meeting by attempting once again to rebalance power by stating that it appeared that all participants understood the severity of the issues that had been discussed and particularly that people’s livelihoods were being affected. He then asked that another session be organized with a focus on drafting reports identifying the economic value of the industry to the region and to consider the issue of compensation again. The meeting was then adjourned.

There were a number of consistent patterns that became apparent in the way that government regulators responded to community questions throughout the information sessions. First, it was clear that government officials always set and controlled or attempted to control the agenda. This, in turn, discouraged discussion of issues beyond or outside government control. Other patterns included shifting the focus of discussions, ignoring questions, discounting of clam harvesters’ experiential expertise and ignoring

requests to be included in policy formation processes, along with the use of communication patterns that silencing and sidelining the participation efforts of non government officials. It was also apparent among government officials that there were structural jurisdictional conflicts and the assignment of blame to other government departments when responsibility issues arise. Some perceived problems were declared 'non-negotiable' stifling opportunities for engagement and consideration of alternative solutions. Also apparent was the use of post-hoc and non sequitor reasoning. Clam harvester reactions to these power based approaches (Morris 2002) will become evident during the discussion in the clammers focus group sessions. As we shall see in the following discussion, these government strategies had led to a rapid expansion and escalation of conflict (Pirie 2000:45) with the result that the clam harvesters have grown increasingly distrustful, angry and determined (ibid:143) to obtain information that had been withheld from them. Data from the focus group sessions and from the interviews with government officials mirrored data drawn from the information sessions. While the clammers focused on the conflict and its tangible outcome, government officials and regulators focused on issues of government jurisdiction, government authority and control, and their own understanding of governmental objectives of integrated coastal zone management. Because the information process did not allow opportunities for genuine collaboration and for genuine engagement, opportunities for mutual understanding and transformation never materialized. One is left with the impression that clammers and government officials were occupying different worlds, such that they talked past one another without hearing each other with the end result that no one emerged from the sessions with a clearer understanding of the conflict must less a

process with the potential to general possible solutions. The patterns that emerged from the information sessions will be elucidated and expanded upon during the discussions of clam harvesters' responses and government officials understandings in the next two sections.

February 3rd and 24th Focus Group Sessions

Initially my understanding was that the leases in St. Mary's Bay were the basis for the conflict between the clam harvesters and government regulators in CHA2. My education in alternative dispute resolution aroused my curiosity about the governance processes involved in the issuing of leases. However, when I observed the June 2008 and January 2009 information meetings on large scale closures and the implementation of the new Conditional Management Plan, the way that government were responding to the clam harvesting communities interests and concerns intrigued me. I questioned whether the interactions between government regulators and the clam harvesters and the governance processes at those information sessions were also contributing to the conflict. Furthermore, the types and levels of conflict that emerged from these events where of interest to me.

The questions that materialized from the information sessions that guided the focus group sessions included, but were not limited to: Can you describe the processes that were followed in the introduction of the St. Mary's Bay aquaculture leases? Can you describe the government processes associated with the introduction of the new Canadian Shellfish Sanitation Program classification? How were you involved in setting the agenda for the meeting? Who made decisions about which stakeholders should be

consulted? What can you tell me about the degree to which information was shared with everyone? What were the major causes of conflict with respect to the clamming resources in this area? How do you think conflict has been dealt with? What can you tell me about your impressions of those meetings? What do you consider important steps in resolving conflicts? How do you think conflicts should be resolved in a situation like this?

In order to better understand how clam harvesters responded to the information sessions, I organized two focus group sessions³⁹. At six o'clock on the evening of February 3rd, five out of six clam harvesters who demonstrated an interest participated in a two hour focus group session at the Marine Resource center in Cornwallis, Nova Scotia. At the second session, also held at the Marine Resource Center at six o'clock on the evening of February 24th, all six clam harvesters were present. Four of the six participants were above the age of forty five, all were experienced clammers, having begun clamming at the ages of three, six and seven.

During the focus group, desks were arranged to form a circle. Refreshments were made available throughout the session and a chart was made available to give participants an opportunity to identify anything they thought was important and requiring attention. Participants were also provided with a pad of paper and a pen so that they could take personal notes and an interview schedule they could refer to at any given

³⁹ The data collected throughout the two focus group sessions are being presented thematically and therefore, there will be no distinction made between exchanges and at which focus group session they occurred.

time. The focus group session began with a discussion of ethical issues associated with the research. The research was explained and the participants gave oral and written permission to the researcher to audio record the conversations. Immediately after explaining the purpose of the session, an interactive conversation began.

In order to get a sense, from the clammers, of government processes and affects associated with the introduction the depuration leases and the new Canadian Shellfish Sanitation Plan regulations, I began by asking participants to explain to me the designations and where soft shell clams and quahog clams were being harvested in the region. One harvester responded to this by explaining that he had collected over forty years of information on clamming, ranging from associated businesses in the region, to studies done in the United States on re-seeding and enhancement of clamming resources. He then went on to explain that when the Department of Fisheries and Oceans uses terms like ‘community management’, he was not sure officials understood the meaning of the concept because, in his experience, government officials were not involving communities in management strategies. I then asked the group what community based management means to them. One clam harvesters response included:

The way that I think community based management should be [is] run by the community itself and have a little bit of authority from the government when you, when it’s actually needed or called for, instead of vice versa, the opposite bloody way around, because it... The government, they sit back and make it look like: “What I just told you is what’s happening”, when it’s the opposite that is what’s happening. DFO and the government, they both have last say. Unless you make such a big stink that it makes them look bad politically, then they [will] reverse their decision.

While another stated:

Well, community based should be just that; looked after by the community, not run mostly by one big company and a few handful of independent diggers outside of that.

When the clammers were asked how community based management might work, one harvester linked it to coordinating efforts among clam harvesters and others to keep the resource healthy, stating:

Yeah, I can tell you everything you want to know because I know it all because I've got all the paper work at home. I've been trying for the last 6 years. Integrated Management means re-seeding, control size limits, controls how much stock you take out of it each day, how much tide and all that stuff which should be controlled through the community which we've got no say over whatever. We even took proposals to DFO and asked for a 200 lb size limit, 200 lbs a tide, every time we re-seed a beach and bring it back we'd stake [a notice] that on that beach. We've got 2 conservation beaches, we asked for that the last 2 years and DFO said they can't enforce it; they ain't got the manpower.

In connection with discussions with government surrounding the concept of integrated coastal zone management, the clammers were asked about processes in order to elucidate information about their level of participation with government officials.

When questioned about whether or not they were involved in setting the agenda for the information sessions held at the Marine Resource Center and other meetings such as those held by the Southwest Nova Scotia Clam Advisory Committee (NSCAC) and the Nova Scotia Shellfish Working Group (NSSWG) a clam harvester said [regarding NSCAC and NSSWG meetings]:

Oh you get a chance to send your agenda down, but it's a matter of if they address it or how much they address it or if they want to address the thing.

Harvesters obviously believed that their agenda items were not being sufficiently addressed and that they had little productive input into management decisions, even though they were able to attend management meetings. Their frustration with the

inability to participate, collaborate and contribute to management decisions was apparent when the topic of consultations was brought up. In the context of engaging in consultations between government officials and harvesters to discuss private leases on public beaches, concerns about non disclosure and withheld information generating distrust dominated the discussion. One clam harvester stated:

Well, the worst thing that happened was they were going to make the closed door deals before the leases to start with. If we wouldn't have known about that they would have slipped that right by us at first-- but my thing [is], bring it to the public, let everybody see it. Because that meeting with the municipality that one time [about the requirement] to have a 2500 pound limit to get into depuration, we brought that to the public [and] it was gone the next day.

You want to know how we found out about those leases? One guy [who works for government]...he is the only one that told us. If he didn't come up and tell us that we would have never known. They would have slid that all past us. He came up here and said you guys have got a big problem coming. I said what is that? He said: "I will talk to you after the meeting". He walked out [of the meeting] and said [to me]: "[the Chief Executive Officer for Innovative Fisheries Products] is going for 10 year leases on the rest of these beaches and you guys better get your eggs in one basket and start fighting against him". But it was too late, they already decided in government what they were doing anyway, so they just did it.

This clam harvester is making the point that there was no consultation in terms of collaborative, integrative processes that involved harvesters in developing new management arrangement. Furthermore, he is making the point that information about which clam beaches were going to be renewed was withheld. The end result of the clam harvesters' limited ability to contribute to the discussions was that independent clam

harvesters became prohibited from accessing traditional clamming grounds and that no alternative arrangements could be discussed or negotiated. Similar comments about withheld information and lack of consultation were made in relation to implementation of new Canadian Shellfish Sanitation Program regulations. One clammer noted:

... they basically sat down in front of them [the municipality of Digby] and said: “This is how this has got to go, this is the protocol, this is what’s going to happen, if you guys don’t follow the protocol then we will shut you down”. And [the municipality] has a secretary... “Well we are going to have our secretary come in and take notes as you guys are...” “No no!” The secretary goes out of this room. You are going to listen to us, we are going to dictate to you what is going down and what is going to happen. And then from there the shit started to hit the fan because within a couple of weeks we had a very major rain storm and there was, they had a sewage spill and they shut the entire Basin, not half of it, all of it.

The comments indicate that, at least from the perspective of the clammers, provincial and federal government officials were exercising official authority and jurisdiction in order to dictate to the municipality in the same way they dictated to the clam harvesters during the information sessions. It seems that the municipalities were also being excluded from participation in the development of policies associated with integrated coastal zone management of resources. Certainly, the comments made clear that harvesters viewed the municipality as relatively powerless in connection with management decisions.

Decision making processes were discussed repetitively throughout the focus group sessions. For instance, after an exchange between harvesters about the ability of the owner of the depuration company to control management decisions made by the Southwest Nova Scotia Soft Shell Clam Advisory Committee and Nova Scotia Shellfish Working Group meetings, I asked if anyone else had similar influence with government

officials in connection with the integrated coastal zone management. One participant replied: “It’s kind of hard to say something when they haven’t actually involved you in the process to begin with”. To which another clammer proclaimed: “You have to be invited to speak.”

When asked directly whether they knew what the decision making process was used [during the Southwest Nova Scotia Soft Shell Clam Advisory Committee and Nova Scotia Shellfish Working Group meetings] a clam harvester replied:

They say they take it to their head officials and they make the decisions. We are only an advisory, we can only advise what we want; but that’s what we are, like if they don’t like our advice, it’s gone. “See you later!”

These comments not only reflect harvester interpretations of decision making processes, they also call into perspective the question of whether or not the interests and concerns of all actors are being fully discussed and addressed during consultations, information sessions and other government industry meetings.

The clam harvester’s point of view discussed above was expanded upon in other exchanges. After another harvester and I discussed the objective of my thesis, the harvester interpreted my research as focusing on the interactions of coastal communities with government and the governance process. He commented:

They are not being responsible. They are not taking any real heat for the stuff that they are doing. If you are going to do something and it is supposed to be a health interest, then look after the people that you displace. Either give them another job or something, and don’t tell a clam digger that he now has to go take a welder trade, travel over to New Brunswick somewhere to work. Give them something that is in their area, that they have an idea of what they are supposed to be doing, feeling like they have a little bit more self worth.

In this quote the clam harvester is stating that the government regulatory agencies are only concerned with implementing the new Canadian Shellfish Sanitation

Program regulations. From his perspective, government officials were not concerned about the consequence of regulations on the clambers' lives. Clamming has been a way of life for many of these people. Harvesters spoke of being misplaced from their occupations and from communities. Although the clam harvesters are being negatively affected, at a deep and personal level, by the new regulations, the quotation indicates government responsibility to ensure that the interests (i.e. livelihoods) of the clam harvesters were also being integrated and addressed as management issues. The clam harvester's impressions became even more evident when I asked whether the Department of Fisheries and Oceans authorities responded to clam harvesters when they raise concerns about significant closures, loss of income, loss of way of life, as a result of the water treatment failures at the Digby wastewater treatment plant. In response to my question, one harvester declared:

We even sent a letter to Gail Shea (Minister of Fisheries and Oceans) and she said: "There is no mandate to help you guys at this time. There is nothing there, for closures like that, there is no mandate to help us. So they ain't interested.

This clam harvester is pointing out that priority was given to limitations in jurisdictional mandate at the federal Fisheries and Oceans level merely consolidated clam harvesters' view, that government officials were not interested in integrating into the policy formation and decision making processes, consideration of harvesters management interests. While it was obvious that the interests of clam harvesters were excluded from discussions surrounding the implementation of the new Canadian Shellfish Sanitation Program regulations, despite the consequences on harvester's livelihoods, I sought clarification on their relationships with Innovative Fisheries

Products and leases granted to the depuration company⁴⁰. By way of clarification, a harvester responded:

....privatizing instead of leasing, it's almost the same bloody thing because it gives them the right to all the [shellfish] that is in that area.

This clam harvester used the term 'leasing' synonymously with the term 'privatization'. From the point of view of the harvesters, the implications were much the same. The independent clam harvesters fundamentally disagree with the concept of leasing crown land beaches to private companies and therefore they will not work for Innovative Fisheries Products. As a result, they are excluded from access and withdraw from beaches that have been leased to the depuration company. This is in contrast to closed area clam harvesters or depuration diggers who do not have any reservations about the leasing of crown land beaches and will work for Innovative Fisheries products harvesting on leased beaches. Along similar lines of conversation, Innovative Fisheries Products were brought up again. They were discussed in relation to a proposal that they were involved in developing alongside a consortium of business men, Innovative Fisheries Products and the Regional Development Authorities of Annapolis/Digby; a process that excluded the clam harvesters. The objective of the proposal was for the clam harvesters and Innovative Fisheries Products should jointly develop a co-op, but as one clam harvester put it:

⁴⁰ 'Open' areas are areas deemed clean enough (under the shellfish sanitation program) for harvesting without requiring depuration. Closed areas are classified as contaminated, but harvesting is possible as long as a depuration process is available. Closed areas were leased to Innovative Fisheries Products (IFP), and this has been justified by some because IFP invested in a depuration plant. This is why there is a link between closed beaches and privatization (Wiber and Bull 2009:10).

What we were asking for was a community depuration [facility] that we could bring our clams into and [then] sell to anybody. And so... it's almost like they flipped the whole bloody thing... and say [to themselves]: "Here, [now] we can sell Innovative Fishery to them".

Because the consortium of business men, Innovative Fisheries Products and the Regional Development Authorities of Annapolis/Digby region developed the proposal without consulting and collaborating with the clam harvesters, the proposal did not reflect the clam harvesters interests and needs which was to have a regional depuration facility. Access to a community depuration facility, they reasoned, would have allowed them to continue their livelihoods while also protecting consumer and government interests in promoting health and safety. Although it was not explicitly stated, the potential was there for government money to underwrite the purchase. However, the clam harvesters were not aware that they had access to the necessary resources to purchase Innovative Fisheries Products. Consequently, the harvesters apparently were left with the impression that government officials preferred to endorse and support one corporate stakeholder, rather than deal with the interests and needs of the harvesters, no matter the harvesters' personal costs. As I wanted to explore other sources of conflict in the clam harvesting industry, I prompted a conversation about data collected by Environment Canada and the Canadian Food Inspection Agency officials used to determine which beaches would be open or closed for clam harvest. Once again, harvesters comments indicated continuing data information conflicts resulting from limited disclosure, lack of attention to capacity building, and inadequate information sharing processes. One harvester commented:

A little bit from the meat counts...All three meetings they promised me...They still haven't given us any water samples. I mean just little bits of meat counts but

I mean if there is something in the water that would say even if it is one part per 50 million parts, at least it would give you an idea of where they are coming from.

And furthermore:

I said how can you have a bad meat count if the water quality is good? The clam filters itself within 24 hours a day; it will flush itself in 24 hours... But they said: "Oh it's bad meat counts. It must be in the mud; it going to [mean] bad meat." And I said: "That's impossible! You can't have clean water and bad meats; it's impossible for a clam to have that".

A comment made by a harvester about the justification used by regulators to implement the Canadian Shellfish Sanitation Program regulations was:

There was even like, it was in the first meeting, [they referred] to an old rule that was back in the 1940's or whatever, about shutting this here Basin down. Then we come to find out at the next meeting that it was this here new Shellfish Management Plan from down in the States, the States; had an audit. It wasn't that [old] rule [from] before.

Not only did the clam harvesters feel isolated from sources of information and data, they also expressed dissatisfaction and tension connected to the role the depuration plant owner played during integrated coastal zone management meetings in connection with the commercial purchase of clams. In response to another conversation between harvesters about industry meetings and government 'engagement' and 'consultation' processes, a participant declared:

I am going to boycott every one [meeting] until [the Chief Executive Officer for Innovative Fisheries Products] get's off of that board. He is underneath there as the Fish Packers Harvesters Association, that's got nothing to do with clams and he sits on the board and makes decisions for all of us, he is a buyer he is not a clam harvester.

Clam harvesters indicated being sidelined and silenced by government officials in favour of the large-scale commercial priorities of Innovative Fisheries Products. The terms "divide and conquer" and "divide and separate" were mentioned numerous times

by clam harvesters throughout the focus group sessions so I took the opportunity to ask if they could elaborate on the terms or provide me with some references. They explained to me that at industry meetings prior to 2004, separate seats had been allocated to each of the Digby and Annapolis County Association representatives because CHA2 had separate boards, at the time, for the two regions. However, in April 2004 the two associations combined to form one board. The purpose was to ensure integrated planning in management efforts and unity in decision making by clammers in CHA2.

However, a clam harvester explained:

...they didn't want us to combine, they didn't want that, because they had to question everybody and Arthur had to fight with them and more or less tell them that this is [what] it is going to be, forget about it. Because before if Digby made a decision, then guys didn't have representation, if you got one guy from Annapolis and they ask his opinion, it could overrule say 50 or 100 diggers on a Digby side if they got no association... Yeah, I said what the fuck is that? They are not even a registered thing and they can counteract like that? Well I said we need to combine or we're done and that's what we did. Now at least we have an equal say.

In this quote the clam harvester is stating that the government authorities did not want Digby and Annapolis clam boards to combine into one association because the government authorities would have a difficult time 'dividing and separating them' and thus undermining collective decision making. Although the harvesters in the focus group had apparently overcome former divisions between the two regional harvester groups, they acknowledged that new patterns of divide and conquer were established when government regulators zoned CHA2, implemented new size limits and, more recently, implemented large scale closures of clam harvesting areas as a result of effluent from the Digby waste water treatment plant. In connection with the new Conditional Management Plan, a harvester commented:

Like before it used to be Digby against Annapolis. Like Annapolis side had their little agenda...we guys have already been divided, we've been zoned...and then after a while they divided Digby and Annapolis for size limit...Now DFO is switching their [divide and conquer] to open areas and closed area diggers...Well, all the dep diggers, I don't communicate with dep diggers anymore...[the Chief Executive Officer for Innovative Fisheries Products] would say: "Go shit on a beach and dig for 5 cents a pound" and [his harvester] he would go down there and do it; it doesn't matter what he said he [would do] it....

The clam harvester's quote identifies that the most recent efforts by government authorities to 'divide and rule' them, in this case through regulations dividing clam harvesters in two groups: Independent clam harvesters and closed area depuration harvesters. Closed area depuration harvesters are employed by Innovative Fisheries Products to harvest on beaches that have been issued to them through leases. Independent clam harvesters on the other hand are limited to open beaches and are excluded from harvesting clams in areas reserved for depuration harvesting. As a consequence, the interests of the two groups of harvesters are diverging for two reasons which is resulting in disputes between independent clam harvesters and closed area/depuration clam harvesters. First, clam harvesters who work for Innovative Fisheries Products are willing to work for low clam harvesting prices that the independent clam harvesters believe is undercutting the market. Second, the closed area clam harvesters have access to beaches reserved for depuration and they have access to open beaches because they are licensed fishers. It is for these reasons that the clam harvesters suggests in his earlier comment, that government regulators are not working to facilitate or support integration in collaborative management policy decision making. Instead government regulators are thought to be contributing to divisions among the clammers and to the conflict with a view to consolidating regulatory control. When the

participants were asked to reflect on how conflict had been dealt with in the clam harvesting industry they responded:

It hasn't.
It hasn't and it won't ever be.
They only way they deal with conflict is that they [government regulators] let it....starve us to death. They let it go until finally eventually after a while there isn't enough of us to make a difference.

Not only do these comments clearly articulate that the clam harvesters think that conflict has not been dealt with, the comments suggest a sense of futility. Yet the comments suggest too an indicator of escalating conflict wherein government officials are presumed to be not only disinterested but also to have an evil intent. Clam harvesters' reflections in the next quotes reveal high levels of distrust on both sides, along with consolidation of conflict groupings, the use of power and intimidation; attribution of an escalating conflict:

Them fellows who was sitting around that table was extremely anxious when t here was 50-75 of us out there... Oh yeah, they had the RCMP here...

When I asked who got the RCMP involved a harvester replied:

DFO. Because they were scared because they think the clammers are going to rip and tear and beat them...because they know they are screwing with our livelihoods.

This clam harvester identifies attributes of this conflict that could be expected to contribute to its escalation: the fact that the conflict is about fundamental livelihood and self identity. The comment in turn links the serious nature of the conflict to fear on the part of other parties to the conflict in connection with potential use of violence. The Department of Fisheries and Oceans government representatives, felt nervous enough to call the RCMP to ensure that the event did not get out of hand.

As one participant explains, the escalation of the conflict between government officials and harvesters was not limited to the information sessions:

I went down to Yarmouth the first time... Everybody was saying and doing what [the Chief Executive Officer for Innovative Fisheries Products] wanted all around the table. I got down here and there was hell to pay because I fought for 4 years straight, he was down there beating the tables, swearing at me and all that, I was arguing with DFO, [Malinda⁴¹] and [the Chief Executive Officer for Innovative Fisheries Products] were sitting side by side fighting against me every week.

Here the harvester is referring to interactions among harvesters, government officials and the Chief executive of the depuration company that took place at industry meetings involving the Southwest Nova Scotia Clam Advisory Committee and the Nova Scotia Shellfish Working Group. The described exchanges illustrate patterns consistent with the characteristics of escalating conflicts: the movement from light to heavier and heavier power based communication patterns – on both sides, including, as the following quotation illustrates, coercion, in this case in the form of threats and intimidation, on part of commercial interests:

But the biggest thing that shocked us, one time we had a meeting in Digby, it was an association meeting and [the Chief Executive Officer for Innovative Fisheries Products] came in there with a cop...super cop is what we call him...And we sat there and that is when we were deciding to go against the company and stuff, and he stood up at the meetings and he said: “If you don’t dig for me now and [take] what I am paying for them, I am going to take your homes” [with a cop] standing right there beside him, protecting him. Like what kind of shit is that?

That’s ah...

Intimidation.

Yes, intimidation.

Threats.

⁴¹ See reference to Malinda in next section on individual interviews with government regulators

Absolutely threats.

I'll tell you after that meeting with the threats, which broke the association in half for us because the people made the decision to go work for him because they were scared half to death.

The use of power and coercion in this case, had the immediate effect of dividing clam harvesters into two groups, independent (open) and depuration (closed) area diggers, with temporarily divergent interests. Nonetheless, power based coercion never resolves conflict; it simply drives the conflict underground, results in toleration/resignation, or results in power based retaliation.

While it became evident throughout the focus group sessions that conflict in CHA2 was actually escalating, I enquired about the ways in which the clam harvesters thought the conflict should be dealt with. Instead of reflecting on means to promote discussion and encourage consensus, the harvesters focused on the need to overcome differences in understanding the world view between government officials and the realities of clam harvesting lives before productive discussion could take place:

I think the only way to resolve conflict is to switch jobs. Let them put a pair of boots on and clam for work.

[Yeah] Let them break their back for a while. Make sure that they are down there when the clam flats are closed. They still get their damn checks.

The comments indicate the continuance of opposing world views, claims that government officials had no appreciation of the human life circumstances of clambers. To deal with these issues, the clam harvesters suggest strategies that are compatible with the transformative approach to conflict: encourage and validate expertise and knowledge of parties by exchanging social, cultural and economic positions associated with lived lives and economic livelihoods (Lederack 1995) along with acknowledgement and attention to disparities in power (Dukes 1993).

Individual Interviews with Government Regulators

Given the discussions between two information sessions, and the harvesters' concerns as expressed in the two focus groups, I thought it important to better understand the position of the various regulators involved. Between February and April of 2010 a series of eight individual interviews were conducted with government regulators. On February 22nd two Department of Fisheries and Oceans officials were interviewed. They will be referred to as Sterling and Malinda⁴². Two more Department of Fisheries and Oceans representatives Paul and Jason, were interviewed on April 7th. David, a Canadian Food Inspection Agency employee was interviewed on March 4th while Diane, another local Canadian Food Inspection Agency employee was interviewed on April 8th. On March 1st, Daniel a representative of Environment Canada was interviewed while Simon, from the Nova Scotia Department of Fisheries and Aquaculture was interviewed on April 7th.⁴³

Each individual interview was conducted at a venue selected by the participant. I began with a statement about the purpose of my research, followed by an oral and written confirmation from the interviewee that the interview could continue. I explained that I was interested in formal processes that could facilitate change in the management of clamming resources and that I wanted to gain some idea of how government

⁴² In order to protect confidentiality and to comply with ethical research obligations, government interviewees are being given pseudonyms. Although the clam harvesters are a heterogeneous group with varying opinions, the focus group sessions made it difficult to identify comments made by individual clam harvesters while transcriptions were being made. The identities of the clam harvesters will be protected, however, they are not being given pseudonyms. Instead, quotations will be marked as having been made by a 'clam harvester'.

⁴³ Quotes recorded throughout the government interviews will be presented in the same order that the participants have been introduced.

regulators interpreted integrated coastal zone management, a policy objective that the Canadian government had agreed to support and facilitate. As a result, participants were asked about policy and progress in a variety of ways.

When I asked Paula (Department of Fisheries and Oceans) to explain to me what integrated coastal zone management (ICZM) means she responded by emphasizing division of responsibilities and jurisdiction issues. The official explained that policies and practices associated with integrated management are primarily the responsibility of a division within the Department of Fisheries and Oceans separate from hers. The response indicates a separation in responsibility, jurisdiction, policy and practice, despite that, from a resources management and resource harvester point of view, government policies and practices govern the same human livelihoods, the same communities and the same resources. The official replied:

ICZM is an Oceans and Habitat initiative. We end up getting [pause] well here in Resource Management, we are a portion of it, that's it. The information that I would have would be things that I have read on what they are doing in certain areas... sometimes we participate in that if parts of our fisheries are in that, but we don't look at IM. We are a part of it, but we are not the ones that are totally responsible for that, it's an Oceans initiative. It's in the Oceans Act.

In response to the same question Jason (Department of Fisheries and Oceans) responded with a distinct, although related perspective. Instead of emphasizing divisions of jurisdiction between government divisions, this official emphasized perceived attributes of government jurisdiction: power and control. He explained that:

ICZM is looking at all aspects of the area that you are looking at and all of the different types of uses, and different types of impact of the things you are having trouble with. You can only manage those aspects that you have control and can manage... We can manage resource, we can manage access, we can manage enhancement, we can manage those parts of it.

David (Canadian Food Inspection Agency Digby) was asked about the role of conflict resolution in integrated coastal zone management (ICZM). The response was interesting in that the federal official, in defining the parties to coastal zone management conflicts, portrays the government role and the governments' interests underlying that role (both federally and provincially), not as a neutral party facilitating collaboration and consensus, but as a partisan party representing the interests of consumers. The official replied:

When you are dealing with ICZM, so you are talking about diverse things I think, coming together on one issue. Like [if] clam harvesting is the issue, there is DFO, CFIA, EC all from the government point of view, there are depuration diggers and open area diggers, and there are consumers. There's the manager's. We as CFIA look out for the consumers, so does EC and DFO. Open area clam diggers are looking out for their families and hopefully the consumers. The depuration diggers doing the same through two different means there. So that's the integration...

To follow up on this concept of conflict resolution methods utilized by government officials associated with integrated coastal zone management, government regulators were asked a series of questions about their level of involvement in consultation and citizen engagement processes, for example, they were asked if they had been involved in setting the agenda for the information sessions discussed earlier.

Malinda (Department of Fisheries and Oceans) asserted that government officials did not create or exercise control over agenda items:

Usually at the beginning of the meeting you review the agenda and ask for additional items and then throughout the meeting if people want to bring up things. And you know these meetings were lengthy meetings. You know you were at some of them. We certainly allowed, we didn't shut anybody out of any subject matter that they wanted to bring up, you know?

Jason (Department of Fisheries and Oceans) however, indicated that a degree of federal and provincial government control was indeed exercised in setting meeting agendas. Indeed the response indicate a strategy of structuring meetings via the agenda in order to keep the meeting focused on topics of interest to government. The official stated:

It was a cooperative [effort] between the management of DFO, CFIA and EC to set the agenda. Because it was really focused [on] more [than] one issue-- the agenda, as opposed to having just a harvesting area meeting to talk about the DFO and resource aspect of it and the fisheries aspect of itself...This was kind of a 'one off' to address this particular issue here. We didn't want to mix the two of them together.

David (Canadian Food Inspection Agency) commented in a similar way:

...generally all 3 department agencies were at the table at the same time. And the agenda was generally developed by government because it was an information session. Here is what we are going to be doing, here is what you need to know here's what changes are going to be coming or may not be coming.

"Information sessions", then, were uniformly seen as an opportunity to inform others about government decisions, not as a free exchange of ideas to resolve resource problems associated with management of resources, much less a discussion of integrated management of resources in a way that would involve participation or insight from traditional harvesters of the resource. In asking about consultations, on the other hand,

there was a certain degree of confusion between representatives of various agencies. Government regulators were asked to expand on the consultation process, by explaining for example, who makes the decisions about the actors to be consulted when new regulations are being implemented. I suggested that their responses could vary from cases where they had experiences with consultations themselves, to cases where their particular agency concerns were or were not considered.

Sterling (Department of Fisheries and Oceans) stated that consultation requires:

...getting opinions, getting positions, hearing sound arguments for one position or the other.

He later added comments indicating that, from his perspective, government officials, not consultants, are in charge of the decision making:

So it's the whole issue of governance and how we made decisions. It's not the consultation; it's how we made decisions. I think we consult well enough but it's the decision making process...

Further explanatory comments were provided by Paula (Department of Fisheries and Oceans):

Consultation, you know [pause] it really depends on what the subject is. Some consultation is that you are bringing forward information so that people are aware of what's going on. Some consultation is to let people know what is going to happen because we or whoever it is doesn't have a choice. Sometimes consultation is [when] you want feedback because there are options available.

Once again, we see government officials dismissing the value of citizen engagement in decision-making processes. Instead, consultation is viewed within narrow parameters that preserve government power and control: telling people what government had decided. The quotation indicates that genuine input might be allowed but only in connection with discussion of options pre-determined by government

officials, prior to governmental decisions about which option to choose. With respect to the harvesting leases, varying responses were provided.

Sterling (Department of Fisheries and Oceans) for example, referred to “public consultations” [that take place when a proposal for an aquaculture lease has been submitted] in terms of government presenting its decision to prefer the granting of private leases in favour of a commercial corporate party against the interest of some participants at the meeting and then inviting those opposed to the government decision making to present arguments in opposition to the government view:

Come forward with a solid convincing argument, yes we won't do it. I went to those public consultations and I said: “Listen, we had an area, St. Mary's Bay, it was a trial and this is what's happened, tremendous opportunity to increase biomass to increase revenue, to increase economic advantages for people, why wouldn't we be doing that?”... I guess the consultation was based on that; give us a reason why we shouldn't proceed [with leases].

Jason (Department of Fisheries and Oceans) described the process of applying for a lease:

That process is-- the proponent who wants to get access to contaminated areas, submits an application to the department usually through the area office. The area office then takes [it], and it's a written application, and in that application is identified the areas that they would like to have access to... So they [CFIA, EC] have to determine if it's acceptable and that that particular proponent has the acceptable standards. Once it's signed off, DFO also signs off on it and then we have the license prepared, and a lot of the things about the decontamination plan will also be in the license. So then we will issue that license.

However Simon (Nova Scotia Department of Fisheries and Aquaculture) suggested a more inclusive approach:

...we tend to follow a process of networking to agencies and a public meeting, but we don't tend to reach out and meet with stakeholders as much as maybe we might in the future. We tend to just rely on the public meeting and the network agency thing. Now if somebody through that process has some concerns and they write to us or call us or speak to our field person and say you know we want

to be consulted on this, then we would entertain that and would likely meet with whoever needs to be met with.

Nonetheless, the official added comments suggesting provincial government employees do not take a proactive approach to engaging harvesters whose lives are affected by government policies and practices, with exception of government policies and laws mandating discussion with First Nations peoples. Indeed, once again, the comment “we are more reactive at this point on the stakeholder side of things” suggests government alignment in favour of consumers and economic development, rather than a neutral position. Furthermore Simon commented that:

We don't have a process where we say well ok, this is a clam project, who are all the clam agencies, let's meet with them [pause] right at the moment it's not like that although it can happen. Typically we are more reactive at this point on stakeholder side of things except for like I said, the First Nations because that is now being built into the process.

After discussing the concept of consultation, and whether such consultations took place prior to the implementation of new Canadian Shellfish Sanitation Program regulations, government regulators provided some points of clarification.

Malinda (Department of Fisheries and Oceans), for example, wanted to make it clear that the sessions held with industry representatives prior to the introduction of the Conditional Management Plan were not consultations, that federal and provincial priorities and decisions on the management of clamming resources and concerns about consumer health were never open to discussion with traditional clam harvesters:

The process is non debatable. This is the process which has been decided, this is safe for human consumption and so that part is not up for the discussion...So that

is why by asking me about consultation I want to just clarify that what we are doing, we are not really consulting, but we are having information meetings and because these classifications are changing because of this review, place by place we are seeing if that number is right.

Paula (Department of Fisheries and Oceans) added:

So when you ask about consultation, you need to probably be a little bit more clear. Is it consultation on something that is a reclassification? A reclassification is something that would probably be more or less taken to them and this is how we are going to have to reclassify this because they are reclassifying something based on all the information that they have.

David (Canadian Food Inspection Agency) on the other hand, suggested that consultations had taken place, but said these only involved the three Canadian Shellfish Sanitation Program partners—Canadian Food Inspection Agency, Environment Canada and the Department of Fisheries and Oceans--, and that during those consultations, the responsibility of Canadian Food Inspection Agency was to develop the policy document:

From a point of view of the actual classifications of the beaches and so on, we are just involved in a consultation process with EC. They are the ones who determine classifications... we don't enforce anything with clam harvesters so in the whole process, what I think we are going to be talking about, classifications and so on, it is primarily an EC and DFO decision and CFIA is just one of 3 partners in the CSSP process; basically [producing] that policy document.

Once again, government jurisdictional authority and power are prioritized. Little value is assigned to the need to include the traditional harvesters or to benefit from their expertise on the management of clam resources. This is in contrast to the Department of Fisheries and Oceans policy document that states Integrated Management is:

A comprehensive way of planning and managing human activities so that they do not conflict with one another; a collaborative approach that cannot be forced on

anyone; a flexible and transparent planning process that respects existing divisions of constitutional and departmental authority and does not abrogate or derogate from any existing Aboriginal or treaty rights (Department of Fisheries and Oceans 2010: Section 2.2).

Furthermore, from the previous comments made by Sterling, Paula and Malinda of the Department of Fisheries and Oceans, and Simon from the Nova Scotia Department of Fisheries and Aquaculture, it becomes evident that the term “consultation” is far less clear to government officials meaning of the term “information session”. I also asked informants to discuss the processes that were followed in approving the leases. Simon (Nova Scotia Department of Fisheries and Aquaculture) replied:

Well we apply [the process] universally...not to say it doesn't change as we go, it depends on the nature of the application and whether we think there is going to be community interest or not, but yeah, I think the process is quite involved as I have explained there a couple of times, it is quite involved. There are several opportunities for communities and interest groups to be engaged in and participate in the process.

The discussion on consultations and decision making processes were followed up by asking the government participants if the concerns and interests of all actors were fully discussed and addressed. Jason (Department of Fisheries and Oceans) replied:

Well because there is issues such as compensation, there is issues as far as classification and those are things that [pause], it's based on the information that is available at that particular time and that's [pause], the compensation is beyond the people that were at the meetings.

Jason is suggesting that perhaps the interests of government – which were to discuss new beach classifications—were different from the clam harvesters concerns: livelihood issues and compensation. Those issues are sidelined as being “beyond the mandate” of the people at the meeting. While, from a government perspective, jurisdictional issues and limited responsibilities, explain, rationally, government officials’ inability to respond to clambers’ concerns, such limitations do not align well with government policies associated with integrated coastal zone management or with the reality of the clambers’ lives. Moreover, jurisdictional limitations beg another question: why was government attendance at the meeting limited to government officials who had no jurisdiction to address integrated coastal zone management and clambers’ livelihood concerns? Similarly, David (Canadian Food Inspection Agency) argued that the concerns of harvesters about livelihood and management of resources fell outside government objectives to convey information during the meetings:

...they were looking at a bigger picture and scope that was out of what we were discussing because they were talking about jobs, they were talking about money, they were talking about financing and funding and so on, and we were talking about a classification because of a wastewater discharge problem.

All of the regulators explained failure to consider clambers’ interests or alternative approaches to integrated coastal zone management in terms of jurisdictional limitations and government priorities. Clearly those priorities were to convey information about government policies and regulations.

I then asked government informants what they thought the real basis was of the conflict was between government and the clam harvesters. Several respondents referred to the different stakeholders and their varying interests in connection with the leasing of

Crown beaches to a private company. Government officials clearly focused on the perceived importance of giving priority to monetary resources and commercial development as Sterling (Department of Fisheries and Oceans) commented:

They thought that [the depurator] was monopolizing the industry and it's like I've said, anytime somebody wants to come and make an investment in depuration, throw 1 million dollars on the table and say we are in...we want to establish a depuration, we would issue [leases to the] beaches.

He later added that government had proposed a solution:

We went to a meeting in Cornwallis not too long ago and the Annapolis Valley economic development, I said why don't you approach the clam harvesters and see if they would want to do a joint project on these two areas with Innovative... You guys work these two beaches in co-operation and if you know you'll understand what it means to run a depuration, they [clam harvesters] weren't interested... I'm baffled, I'm really baffled...

This government official is suggesting that the clammers could all work for Innovative Fisheries Products, the private commercial company. Similar to Sterling's comment, Paula (Department of Fisheries and Oceans) stated:

The questions have been how come there are not more depuration plants?... if it's the only plant that is available, if it's providing work for people outside of the open area harvesting, then I'm not sure why somebody doesn't embrace it and say ok let's work together on this.

Similar to Sterling, Paula implies that the clam harvesters could just work for Innovative Fisheries Products and questions why the independent clammers do not embrace the idea of working collaboratively. Yet, from an Independent harvesters' perspective, this would mean giving up independence and a way of life. In addition, as the clam harvesters indicated during the focus group sessions, the Independent clam harvesters were of the view that the commercial enterprise payments to clammers were undercutting the clam harvesting market. Of additional interest is the government

officials surprise that the suggestion was not accepted and the clear statement of lack of understanding of the reasons.

In commenting on the claim that public resources are being privatized through the leasing of Crown beaches to Innovative Fisheries Products, Simon (Nova Scotia Department of Fisheries and Aquaculture) maintained a partisan position, a view that consolidates government power and control rather than integrated management within communities and traditional harvesters over clamming resources:

...people will say [or] believe that it is common [property], when it is in reality owned on behalf of the people and it is managed by the crown and the crown has the ability through legislation that is in place to lease it for economic gain of individuals and corporations.

He explains that one contributing element to the conflict in CHA2 is that the beaches are owned by the province, asserting that governments have the power to issue leases to corporations for the economic gain. However, some actors in the clam harvesting industry believe that the beaches are common property and that, as a result, leases should not be issued at all, because leases are a form of privatization. The leasing of Crown beaches was not the only source of conflict with government officials. The second issue was the transparency of data.

Malinda (Department of Fisheries and Oceans) raised the issue of data conflict. She explained that the Department of Fisheries and Oceans presented information about changes government regulators had made in the management of CHA2 by presenting data “in a way that people would understand it”:

We have done our best to explain it in such a way that people will understand, you know, with any if people’s incomes are affected, it’s very easy to be very distrustful. That somehow there is a conspiracy or something going on in the background, but this is a very, it’s a simple story basically...

She suggested that some actors in the industry distrust the data because it is the basis for changes negatively influencing their livelihoods. She also indicated that some parties are suspicious that government regulators would exercise power to collect and interpret the data because they might have tampered with it to create results that were partial to the depuration company:

There was certainly frustration in that and there was certainly distrust that we may be trying, or someone, EC, ourselves or someone, may be trying to skew the results so that certain areas would be available just to the depurator.

The quotations suggest two related issues. First, despite years of experience in managing clamming resources in the area, harvesters were not included collaboratively in information exchanges leading to policy discussions. Second, even from the point of view of government regulators, the conflict has escalated to the point of distrust. Here, Malinda is clearly stating that she knows that harvesters believe (rightly or wrongly) that government officials align with the interests of the purification company. Moreover she is acknowledging that the conflict has been inflamed in part by lack of transparency in connection with data exchange. Sterling (Department of Fisheries and Oceans) made similar comments about distrust of data:

Well...there is a distrust of the whole Environment Canada classification system...

Similar to comments made by Malinda and Sterling, Diane (Canadian Food Inspection Agency) suggested problems with respect to transparency and the free flow of information:

But I also did sense frustration that they maybe weren't able to get water results they were requesting from Environment Canada...I don't want to be unfair and speak for EC, but I do want to reiterate that that was an overall concern. And we were faced with this: why can't you give us the water samples?

Sterling, Malinda and Diane attempt in these comments to absolve the Department of Fisheries and Oceans and the Canadian Food Inspection Agency from responsibility. Instead, blame for the data conflict is attributed to another government agency: Environment Canada which collected waters samples and made decisions affecting the classification of beaches. Once again, one wonders why government officials who respond to questions and concerns were not present at the time of the meeting. Daniel of Environment Canada, the government department being blamed, on the other hand, expressed the view that data was being adequately shared with other stakeholders:

CHA2 has been given information, we have spoken with a harvester and other representatives of CHA2 and there is no problem with access to information.

Daniel's comment contrasts directly with the views expressed by the Department of Fisheries and Oceans and Canadian Food Inspection Agency officials that Environment Canada was at fault for problems with information and the lack of transparency. Regardless, all of the agencies acknowledged that a lack of transparency was contributing to the conflict with clam harvesters in area two. While, from a government perspective, problems with information exchange are understood in terms of divided jurisdictional responsibilities, it is unlikely that harvesters, whose livelihoods were being influenced, cared which government division was responsible for what since, from an outside view, the issue was simply information exchange between government and those affected by government. Throughout the government interviews, it also became obvious that a second type of data conflict exists.

At the January 2009 information session there was a discussion between clam harvesters and government regulators about the influence of the United States audit and import standards on Canadian protocols such as the new Conditional Management Plan regulations under the Canadian Shellfish Sanitation Program. On one occasion a government regulator made the statement that the United States market was very restrictive and the Canadian government had negotiated with the United States government to create a more flexible protocol. Therefore, it can be assumed that the United States was having some influence over Canadian protocols. Later in that same information session, a Department of Fisheries and Oceans official stated that the new [CMP] regulations were not based on United States standards, but “we [Canada] are adopting food safety standards that are Canadian and they are compatible with US standards...We’re not doing this because of US standards”. During the interviews with government officials, Paula of the Department of Fisheries and Oceans brought up the new classifications of beaches pursuant to the Conditional Management Plan and commented that. She commented that:

CSSP is kind of a different thing because CSSP is driven, in this last little while; it has been driven by, unfortunately, unfortunately, by the USFDA audit and what the U.S. expects.

Paula’s comment coincides with clammers’ comments at the January of 2009 information session on the influence of American import and audit standards on Canadian protocols. The government official’s comments indicate negotiations they had with the USA, with the ultimate product being Canadian. The comments therefore are consistent in that government officials did not claim the Canadian standards were not influenced by USA concerns, --- they would have to be influenced by commercial

concerns in the USA—he was merely asserting that despite the USA concerns, the final product did not go along with the US entirely. However, the way it was being communicated to parties in the clam harvesting industry, the government officials’ comments seemed to be contradictory: some government officials clearly stated that the Canadian standards were being influenced by the United States, while others, such as that made by a Department of Fisheries and Oceans official to clammers at the January 2009 meeting suggested the governments were “not adopting US standards”. These exchanges explain why it may have appeared as though contradictory or inconsistent information was being circulated. Additionally, David (Canadian Food Inspection Agency) suggested that perhaps a data conflict exists because actors within the clam harvesting industry felt that they were not being adequately informed about the new Conditional Management Plan regulations:

There were no secrets. I mean they think there was a big secret thing, I mean we wanted to get our, there may have been a lag in certain things where we wanted to make sure we had our stuff together before we went to them because we knew of the impact...

David recognizes that actors within the clam harvesting industry believe that government regulators are being secretive. However, he explains that government officials needed to be certain about the information to be conveyed, given its importance to clammers. The comments also suggest that government agencies wanted to clarify government priorities internally before releasing information. What is interesting is that David attributes the data conflicts to government regulators not informing other industry actors quickly enough. While the comment acknowledges a degree of governmental responsibilities for delayed data leading to conflict, from a conflict management point of

view, it is interesting that none of the government officials considered the possibility of engaging the affected parties in the gathering or interpretation of data. None of the government officials considered the possibility that the inability or unwillingness of government officials to integrate clam harvesters in the development of new management arrangements might have been one of the reasons for the data conflict. While these exchanges with government officials provide important insight into what they believe are the causes for data conflicts in CHA2, further conversations revealed that some informants thought there was a personal element to the conflict.

For instance, Malinda (Department of Fisheries and Oceans) stated that in her opinion:

The harvester reps that we have on our advisory committee right now, appear to have conflict with the depuration company. There appear to be some personality conflict issues between them and that has not always been the case...

Personalization is characteristic of escalating conflict. In an effort to preserve an appearance of neutrality and prevent the Department of Fisheries and Oceans from being implicated in contributing to the relationship conflict between clam harvester representatives and the Chief Executive Officer for Innovative Fisheries Products, Malinda does not provide any historical context⁴⁴ for the escalation of dispute. Instead, of exploring the possibility that the relationships of these actors might be strained because of governance issues (power differentials in decision making, lack of

⁴⁴ Historical background of clam harvesting area two referred to in chapter 4 on the chronology of events.

integration and collaboration) she reduces the conflict to an issue of conflicting personalities. Sterling (Department of Fisheries and Oceans) had a similar view:

...the major cause of conflict is personalities given the strong personalities that are involved. There seems to be some, I've heard a lot of comments that because they have a monopoly on the closed areas, that they are able to monopolize the industry.

Sterling's comment corresponds with Malinda's in attributing the conflict to "strong personalities". Paula's (Department of Fisheries and Oceans) statement resonated with Sterling's and Malinda's:

Major causes of conflict in CHA2-- I know that there is, there has been, which has possibly helped escalate this, personality clash...it's within the industry itself, and it's between a harvester or two and the company that receives the licences to do depuration harvesting from us.

Aside from "strong personalities" Sterling and Paula suggest that the contention also stems from Innovative Fisheries Product's monopoly on closed beaches. They therefore recognize that management arrangements – the changes that come with privatization limiting clam harvesters' access to beaches and to means of livelihood-- are contributing factors. Nonetheless, despite the extreme importance of such issues to those affected, government officials chose to view the conflict as primarily a personal issue.

Not only did government informants focus on personal hostility between independent clam harvesters and the depuration company owners, they also acknowledged tension between independent and depuration diggers⁴⁵. For instance,

⁴⁵ Independent diggers are also referred to as open area harvesters while depuration diggers are also called closed area harvesters

Sterling (Department of Fisheries and Oceans) and a manner reflective of views of the clam harvesters on divisions between harvesters cause by government regulations, he noted that the open and closed area clam harvesters are also in conflict:

But there are many harvesters that depend on the depuration systems... they made good money when they worked the open areas and the depuration areas and that's part of the jealousy in the whole system... So they are sort of double dipping so you have some harvesters who feel principled who don't agree with the system who only dig in the open areas, and feel like the people who are harvesting the closed areas shouldn't be into the open areas...

Here, Sterling recognizes that privatization and changes in the ability of clam harvesters to access resources are causing tension between open and closed area clam harvesters. He explains that the open area clam harvesters fundamentally do not agree with privatization and therefore will not harvest from leased beaches. However Sterling personalizes the conflict when he suggests that the open area clammers are personally jealous of the closed area clammers for their ability to “double dip” or harvest in both open and closed areas. David (Canadian Food Inspection Agency) made a similar comment about the conflict that exists between open and closed area harvesters when he stated:

I think the general impression is that the clam associations have a fairly volatile group of individuals that they represent... there have been arguments actually between representatives themselves and government... There are polar opposite opinions between the diggers themselves and no one representative represents all of their opinions...

David points out that the clam harvesters have “polar opposition opinions”, but unlike Sterling, he does not acknowledge that management arrangements have contributed to conflict situation, nor does he make any mention of governance issues. Similar to Malinda, David attributes the conflict between open and closed area

harvesters to personalities and more specifically, the “volatility” of representatives who sit on the clam harvester’s association board. We might contrast this view with the harvesters’ understanding of the same conflict wherein the clammers attribute the same conflict to the divide and rule tactics of government officials. Such divisions in the attributions of blame for conflict are common, indeed to be expected when conflict escalate, particularly when conflict groups consolidate, and represent differing world views. The hostility and tension that led to relationships conflicts among government regulators, open area clam harvesters, closed area clam harvesters and the depuration company emerged as a result of a sequence of prior events. It is the author’s contention that failure to utilize conflict engagement and resolution strategies allowed for the conflict to grow and escalate until it carried over into the June 2008 and January 2009 information sessions. When David of the Canadian Food Inspection Agency was asked what his impression of the information sessions were, he replied:

The ones that were open forum where anyone could sit in, no, they were tense... government was nervous going to some because some open forums we were talking about protests and placards and the potential was there for threats and or violence. It was scary to attend some as a government employee.

It is obvious from this comment that as a government employee, David felt threatened by the clam harvesters. Furthermore, his comment implies that conflict not only continued to exist, but that it had escalated into the use of power or at least the threat of power in retaliation, a heavy tactic characteristic of escalating conflict. After lengthy discussions about the source of major conflicts, government informants were asked to explain how they thought the conflicts they described had been dealt with and

how the conflict should be dealt with in the future. Malinda (Department of Fisheries and Oceans) began by explaining:

...really the ideal is the least amount of intervention by the federal government I would think you know?...When I was talking about a minimal role in intervention, that was [referring to] conflict between fisher groups.

Malinda does not think that, as government regulators, government officials should be intervening in resource user conflicts. Paula (Department of Fisheries and Oceans) agreed with Malinda that, despite the fact that government policies and regulations had created the conflicts, it was not the responsibility of the Department of Fisheries and Oceans interfere in disputes between resource claimants:

It really isn't DFO role to try and mediate a conflict between industry. Industry has written in, has complained, has provided whatever they feel are the reasons why things should not be. DFO has written back and said these are the rules, these are the regulations, this is how we operate...

Paula even goes so far as to provide an example of how she responded to an actor from the clam harvesting industry who wrote seeking assistance to deal with a conflict situation. The situation was dealt with by informing disputants of "how things work" in the industry, thereby absolving government of any responsibility, sweeping the conflict under the carpet. Sterling [Department of Fisheries and Oceans] on the other hand believes that the best way to deal with conflict is to avoid it:

Avoid the conflict in the first place, understand the conflict, ensure respectful discussion on the matter, weight the positions and attempt to find a win/win, ensure a defensible decision and follow through on the decision, mitigate misunderstanding...

If conflict cannot be avoided, Sterling's comment suggests at least an attempt to try to resort to interest-based methods to try to resolve the dispute⁴⁶. Simon's (Nova Scotia Department of Fisheries and Aquaculture) comment coincided with Sterling's in that he also cites "avoidance" as the primary method of dealing with conflict:

I would emphasize the process in itself... it has as its main goal avoiding conflict and avoiding impact on others...

Furthermore, Simon seemed to suggest that government processes are designed to avoid conflict. From a slightly different perspective Jason (Department of Fisheries and Oceans) suggested:

I am not sure you can solve some of the conflicts there except just ensure that people have an understanding of what the issues are and all the facts are made available to them.

Here, Jason is stating that if disputants are fully armed with "facts" about the issue they are arguing over, then the controversy will be resolved. While Jason's comments are true of conflicts that arise only as a result of access to and or interpretation of information, this approach is unlikely to be influential in this case, given the depth and personal importance of issues. When Diane (Canadian Food Inspection Agency) was asked to comment on how conflict should be resolved, she responded in a way that was similar to Jason's, in that she also maintained that the best way to deal with disputes of this nature is to take an assertive approach and inform disputants using scientific data:

⁴⁶ Note: the comment also reflects a limited understanding of interest-based methods, given that the comments suggest a process in which government would weigh the validity of positions, as opposed to enabling the parties to uncover and work collaboratively with interests underlying positions.

With respect to the re-classification, not so much conflict but just a challenge, hearing the stakeholders challenge the fact that, is there a real sense of contamination in this basin... and we were able to provide scientific data that shows there is evidence of these issues so I don't know if that is really resolving a conflict or whether it is addressing a challenge in the industry.

The assumption in this comment and in Jason's, is that the conflict is one dimensional, merely the result of erroneous understanding of data. Therefore, the solution appears to be straightforward: once when disputants become "informed" their problems will be resolved.

While government officials were asked to comment on how they thought the conflict should be dealt with, in a broad context, I also asked about methods of conflict resolution that government participants were familiar with and invited them to elaborate providing description. In thinking about specific methods for conflict resolution, Sterling (Department of Fisheries and Oceans) asserted:

...basically we try to bring the parties together, find common ground, try to explore a win-win on all sides and failing that, as regulators at the end of the day we have to make a decision.

Here, Sterling refers to strategies that are consistent with an interest-based model of engagement, the most typically used form of alternative dispute resolution in North America. However, his authoritative and directive comment at the end "at the end of the day we have to make a decision" contravenes the collaborative and integrative approach to conflict he identifies at the beginning of the quotation. Although earlier Paula of the Department of Fisheries and Oceans suggested that government regulators have no role in resolving conflicts between industry actors, here, her comment suggest that she does see potential value in the use of interest-based conflict resolution methods:

One of the biggest things with conflict resolution is to get people to sit at a table, willingly to openly discuss their issues... even if they are still willing to come back to try and tease out some common goals in there, if you can tease out some common interests there and focus on that you might be able to make headway.

Here her response is informative. She notes that often the most difficult part of dispute resolution is bringing disputants together, but once they do agree to participate, resolving conflict can take place by establishing and addressing common interests. From a slightly different perspective than the interest-based methods described by Sterling and Paula, David (Canadian Food Inspection Agency) states:

How to frame it and this is CFIA's standpoint. Remember that...so if you are going as our representative, go in and say this, don't come off and say your own stuff.

David focused on the need to apply objective criteria, a technique more commonly associated with bargaining or negotiation than with neutral facilitation. Diane (Canadian Food Inspection Agency), on the other hand, emphasized personal sensitivity and flexibility and the balance between those issues and government accountability:

I think you have to be very sensitive in listening and filtering out what the key issues are and what needs to be communicated. And the agency is always, we have to go back to what our mandate is, we have to go back make sure there are procedures in place...

She later added:

...if there is anything I have learned in the last 20 years, it is never, or seldom black and white. So you always have to make that, meet somewhere in the gray zone, but you still have to meet the needs, we still have to meet our mandate, we can't make any jumps there, but there is always a solution and I think the idea is to come up with options and then find the best possible solution given the circumstances.

Diane not only states that relying on objective criteria is an important method for conflict resolution, but she also maintains that sensitivity and empathy for others' value

must be taken into consideration. Simon (Nova Scotia Department of Fisheries and Aquaculture) also made reference to some of the components mentioned by Diane:

Certainly listening closely and intently to what the real concerns are. Trying to find out what the real problem is because sometimes the first thing they say is not the real issue so you try and get to what the real issues are. I think to be a fair arbiter I guess, and objective as possible and to empathize and agree where you should.

He maintains that “remaining objective”, “empathy” and “listening intently” are methodologies that disputants should engage in during dispute resolution processes.

Simon was the last government official to be interviewed. As each individual interview with government regulators began to wind down, participants were asked whether they thought anything was overlooked and needed to be addressed. They were also invited at any time to contact me through email or by telephone to make comments or ask questions. If there was nothing more to be noted, interviews were concluded.

Throughout this chapter the themes associated with integrated coastal zone management policy; integrated coastal zone management in practice; citizen ‘consultation’ and conflict management emerge. The chapter documents the results of conflict avoidance; lack of transparency or at least perception of lack of transparency; and lack of genuine citizen engagement in policy formation and implementation: conflict escalation. Also documents are in the implications of conflict escalation: conflict group formation, reinforcement and consolidation of differences between groups, proliferation of issues, attribution of negative personal intentions and blame; distrust; change from use of collaborative communication patterns to heavy tactics associated with the use of power, including threats and intimidation. In the following chapter the themes that have emerged from the data will be assessed, analyzed and

further explored utilizing theoretical lenses drawn from the conflict resolution discipline.

Chapter 7: Analysis

This chapter utilizes an analytical lens to examine the themes that emerged from data discussed in the previous chapter. Overarching themes can be grouped into a number of interlocking categories: integrated coastal zone management as it is described and practiced by government and the clam harvesters; citizen engagement processes such as ‘consultation’ in policy formation and implementation; transparency of data; interpersonal and intergroup relationship disputes; distrust and anger; power based approaches to communication; power differentials between government and non government actors; differing worldviews; divergent interests, values and objectives for policy formation and conflict escalation.

While alternative dispute resolution practices have been widely accepted as legitimate methods to resolve environmental conflicts since the 1970’s (Pirie 2000), in the context of this case study, it is argued that integrated coastal zone has not made use of it and that this failure has resulted in continuing conflict in the area studied. Each theme has pertinent literature that derives from alternative dispute resolution and integrated coastal zone management. The literature provides a theoretical tool for analysis to explain the nature each specific theme. The overarching themes that will appear throughout this chapter include a discussion of: structural conflict, including structural jurisdictional divisions within government that inhibit the taking of responsibility for citizen engagement and resolution of conflict, combined with struggles instead to contain conflict through the exercise of power and control over structures and processes, such as the setting of agendas. In addition to structural conflicts, other types

of conflicts, such as data conflict; value conflict, interest conflict and relationship conflict will also be examined along with government and clam harvesters' responses to the conflict. Finally, the impact of the continuing conflict on integrated coastal zone management will be discussed.

Dukes (1993) argues that conflict arising from cultural dissolution and alienation from institutions of governance -- which include the inability to address power differentials, debate and negotiate values and interests, solve public problems and resolve public conflict -- cannot be resolved unless individuals and communities have developed sustainable relationships. In sustainable relationships, individuals and communities mutually share relatedness, responsibility, obligation, loyalty, trust and empathy for the beliefs, values and needs of others (ibid). Thus, parties must be empowered at the interpersonal level (Bush and Folger 1994) in order to address and develop appropriate models to deal with the larger structural issues (Lederack 1995). Throughout this chapter, the complex nature of data themes derived from observation of government practices and interviews, discussed earlier in chapter 6, will be compared and contrasted with relevant literature in order to demonstrate how the creation of sustainable relationships through affective engagement could reduce conflict while achieving better resource management.

Competing Interests

Given competing interests in the use of natural resources, some conflict must be expected and must be dealt with, particularly if the goal is integrated coastal zone management (Kearney et al 2007; Bastien Daigle et al 2006,2008; McFadden 2008).

Burton (1987), Rothman (1997) and Lederack (1997) suggest that, in a resource management situation, interests can be differentiated into those that primarily concern divisible resources and those that concern the less concrete but more fundamental issues of personal and group identity. Fisher, Ury and Patton (1991:48) state that “the most powerful interests are basic human needs” including “security, economic wellbeing, a sense of belonging, recognition, and control over one’s life.” Identity based concerns are often tied to fundamental human needs (Deutsch and Coleman 2000:431). In this particular case connections to identity and fundamental livelihood issues are obvious. Clam harvesters often comment on how important their work is in defining who they are:

...you are born and raised into it and there is a freedom that there is on the beach; it’s hard to explain because you are there in the morning, you see how beautiful it can actually be, you can see the best and you can see the worst.

Clam Harvester

I was clamming here since 8 years old, I did nothing but clamming until 3 years ago. It was my main source of income, my brothers, my father and me we all did it as a group. So it wasn’t really a job for me, it was a way of life for my whole life. I was a clammer, nothing else.

Clam Harvester

It is obvious from such comments that clam harvester identity is defined by their profession and livelihood, and thus their access to clamming resources. In this case, the conflict includes both types of conflict identified by Rothman and Lederack in that the needs of clam harvesters are directly linked to clams 'a divisible resource' as well as to self identity. When such interests are threatened either by the action or inaction of others, the result is elevated conflict (Love 2006: 228).

Interference with the livelihoods of clammers was explicitly recognized by some participants at the January 2009 information session. For example, a councillor from Annapolis County raised this concern on behalf of the Municipality and residents of the area, stating that although the Conditional Management Plan regulation “enhances sanitation processes for increased public safety with respect to shellfish, it has also resulted in more frequent closures of the clam flats...[and has] impacted on the livelihoods of the clam diggers.” At that same meeting, a participant from the Department of Fisheries and Oceans recognized these concerns and stated that the agency had raised the issue of compensation with the other two federal partners. However, no decision at the political level was forthcoming. Yet again in the February 3rd, 2010 focus group session, the clam harvesters returned to the issue of financial compensation for their lost income; they had sent a letter seeking compensation to Gail Shea, the Minister of Fisheries and Oceans. Moreover, at the February 24th, 2010 focus group meeting, a clam harvester noted that government regulators were “not being responsible”. They were “not taking any real heat for the stuff that they are doing”. He went on to state:

...if you are going to do something and it is supposed to be a health interest, then look after the people that you displace. Either give them another job or something...give them something that is in their area [so that they feel as though they] have a little bit more self worth.

In this statement, the harvester explicitly links access to clamming resources to basic survival and identity issues and indeed to feelings of self worth. All three parties, the councillor from Annapolis County, the Department of Fisheries and Oceans representative, and the clam harvesters identified compensation for lost livelihood as an

important issue that required further attention. However, it was also clear that such interests were multidimensional in that all parties had a tendency in their arguments to switch back and forth between the larger problem of maintaining clam harvester identities and livelihoods, and smaller, more specific interests associated with compensation and workfare. Even so, responsibility for responding to the specific issue of compensation was challenged by government regulators during individual interviews. Jason (Department of Fisheries and Oceans) argued, for example, that “the compensation is beyond the people that were at the meetings”. Similarly, David from the Canadian Food Inspection Agency stated:

...[the clam harvesters] were looking at a bigger picture and scope that was out of what we were discussing because they were talking about jobs, they were talking about money... we were talking about a classification because of a wastewater discharge problem.

Thus government officials utilized jurisdictional boundaries and limitations to sideline and silence clam harvester needs and interests in favour of government priorities and concerns such as the implementation of new Canadian Shellfish Sanitation Program classifications. The effect, in practice, was to ignore harvester concerns about the implications of closures, particularly the impacts on their economic and social wellbeing and ultimately their livelihoods. Clearly, the clam harvesters and government regulators perceived competing interests that, in the absence of an effective engagement and resolution processes, would ensure the interests of the government officials would remain incompatible with those of the clam harvesters.

This dismissal of the legitimate concerns of the harvesters extended to the Minister of Fisheries and Oceans, Gail Shea. Despite support from the local MLA from

Digby-Annapolis, Harold (Junior) Theriault, who wrote to the minister on June 29th

2009:

A lot of workers have lost income because of this matter [overflow from the Town of Digby sewage treatment plant]...the clamming industry in this region is worth \$9 Million a year and with these losses, the negative economic impact has been detrimental.

On August 19th, 2009, Minister Shea responded:

...with respect to the issue of compensation for the clam industry in the Annapolis Basin, the priority of the Government in Canada is first and foremost the protection and health of consumers. DFO is aware of possible lost revenues for shellfish harvesters due to closures caused by contamination. However, when routine shellfish harvesting closures are in effect, either due to a WWTP event or increased biotoxin levels, no program exists for shellfish harvester compensation within the Department.

Here the government has attempted to sideline clam harvesters' claims to livelihoods by claiming that such issues are *beyond the mandate* of the Government. In essence, jurisdictional divisions and policies created by government without clam harvester input become tools that enable a silencing of all but government concerns. As a result, there was no recognition for the concerns of the clam harvesters much less any exploration of common or overlapping interests. In such cases, the outcome is unlikely to be unsustainable (Trace1995). Dukes' (1993:47) elucidates the purposes and effects of such government responses by explaining:

...the range of issues considered suitable for intervention is limited [in the management framework]. Attention is focused on problems and disputes within the domain of the responsible governing bodies. Thus, a sharp dividing line separates certain public concerns, which are considered government responsibility and hence amenable to intervention, and other concerns (e.g. community identity, quality of life issues) which, since they are not brought under government control, are either considered private matters or are not considered at all.

In this case, they are not being considered at all. Furthermore, the content of new management regulations such as the Canadian Shellfish Sanitation Program (or leases) enables governing agencies to represent the clam harvesting industry solely in technical terms. In this particular case, the domain to be governed (Clam Harvesting Area Two) has been ‘rendered technical’ in that the arena of involvement has been characterized as “as an intelligible field with specific limits and particular characteristics...whose component parts are linked together in some more or less systematic manner by forces, attractions and coexistences” (Rose 1999 in Li 2005:389). Li (2005:389) explains that Government organizes a potentially overwhelming diversity of management measures and demands (for example food safety standards between Canada and the United States) into a set of diagnostics (more regulations are required so that the United States will import safe Canadian clams). The new Conditional Management Plan regulations under the Canadian Shellfish Sanitation Program make plausible connections between the interventions proposed and the outcomes anticipated. Nonetheless, in ‘rendering issues technical’, the government is able to validate an unwillingness to recognize and deal with the clam harvester’s claims to a livelihood. Not only is the issue of incompatible interests not managed, but the continuing conflicts that government action has generated can be sidelined and avoided.

I would argue that the disputes which have emerged are as a result of the failure to consider much less address the interests of all actors, especially those that relate to fundamental human needs and identity. This failure in turn reflects inequalities in the political, economic and social orders and the unequal distribution of resources (social and economic) that are inherent within the Canadian social structure. Recall, that the

Department of Fisheries and Oceans' has an obligation through policy to comprehensively plan and manage oceans activities (DFO 2005) which requires systematic input about interests and concerns, from those who are directly dependent on the environment for livelihood (Kearney et al 2007: 81). If the harvester's interests are classified as being "beyond the mandate" of the government in this case, government officials cannot adhere to government policy as the concerns of all stakeholders' cannot be adequately considered or addressed. The Oceans Act (1996) committed the government to foster sustainable development in collaboration with coastal communities. Whether the arrangement takes the form of community based management or co-management, the community should have a stronger role in management. Clearly, the promise of a stronger role for the community in integrated coastal zone management cannot be realized so long as the needs of community members are ignored.

Nonetheless interest conflicts are but one dimension of conflict, albeit the most easily recognized. Clearly, in this case, government officials and clam harvesters have differing interests. Nonetheless competent conflict analysis extends beyond identification of competing interests because conflicts commonly have more than one conceptual dimension (Susskind, McKernan and Thomas-Larmer 1999). Few conflicts are one-dimensional; most conflicts involve more than one conflict type (Moore 2003:77). Conflict resolution experts (Moore 1996; Deutsch and Coleman 2000; Morris 2002) remind us that further analysis is required. Other types or dimensions of conflict include conflicts associated with values, with institutional structures, with differences in interpretation and or access to information/data, and with relationships (interpersonal

and or institutional). Conflict resolution experts associate each conflict type with distinct conceptual and procedural considerations. They argue that a failure to identify and to respond conceptually and procedurally in a manner consistent with each conflict type results in failure to address the conflict as a whole (Pirie 2000; Moore 2003).

Consequently, in this case, if we are to understand the conflict and the procedures needed to resolve it, it is necessary to move beyond analysis of discussion of interests to consider information/data, values, organizational structures, and relationships among key players. I shall begin with a discussion of the interest/data dimensions of this conflict for two interconnected reasons. Theoretically, information data conflicts are usually preventable, provided that due attention is devoted to transparency and to equal access to information (Moore 2003). Government failure, in this case, to attend to the transparency and the free flow of information/data resulted in a continuing data/information conflict that served to exaggerate and fuel the other dimensions of this conflict associated with values, structures, and relationships. As a result of this chain of events, the interest-data component of this conflict will be discussed first.

Data Conflict

Moore (2003) explains that data refers to facts, information and knowledge. It is further suggested, that full and complete, as well as equal access to information/data, is one of the cornerstones of equitable conflict resolution (Ehrmann and Stinson 1999).

Moore (1996:64) states that data conflict is a genuine source of conflict and arises over:

...lack of data or incomplete data; misinformation or inaccurate information; different views on what is relevant or different assessments.

Certainly, in this case, conflicts arising from incomplete exchanges of information were evident:

All three meetings they promised me... They still haven't given us any water samples, I mean just little bits of meat counts, but I mean if there is something in the water, that would say even if it is one part per 50 million parts...

Clam Harvester

Free flow of information is associated in the conflict resolution field with the concept 'transparency'. Transparency, as defined by the United Nations (Longo 2010) is “built on the free flow of information.” The United Nations cautions that “processes, institutions and information [must be] directly accessible to those concerned with them, and enough information [must be] provided to understand and monitor them” (as cited in Graham, Amos and Plumtre 2003:3). Not only is transparency of data a principle of good governance (ibid) but if adequate amounts of time are spent in data sharing, participants build trust thereby improving their relationship. Attention to the free flow of complete information also helps to break down misconceptions and helps to improve knowledgeable decision-making, resulting in stronger, more lasting agreements. When all parties are exposed to the same data and allowed time to digest it, discuss it with their colleagues and consider the long term implications of it, this also helps to balance informational power (Flynn and Gunton 1996; Pinkerton 1996). However, a “lack of data or incomplete data; misinformation or inaccurate information; different views on what is relevant or different assessments” result in data conflicts.

Let us examine the flow of information/data in this case. At the June 2008 information session a general discussion began about the responsibility of Environment Canada to collect data that is used for classifying shellfish growing areas. When the

question was asked whether the classification data was available, as we saw in Chapter 6, a government regulator asserted, evidence-based control over and management of information. A clam harvester then responded: “we haven’t got those counts yet for what you guys have been doing in the Basin past June the 3rd...”, therefore implying that the information had not been shared. Indeed, in Chapter 6, we repeatedly encountered clam harvester frustration relating to the failure of government officials to provide and exchange information. Failure to provide information resulted in distrust and in the harvesters expressing uncertainty about the quality of the data and decisions based on that data. On the one hand, Diane (Canadian Food Inspection Agency) acknowledges problems with respect to transparency and free flow of information, on the other hand, Daniel (Environment Canada), maintains that: “Clam Harvesting Area Two has been given information, we have spoken with a harvester and other representatives ... and there is no problem with access to information.”

I would suggest that a data conflict exists because Environment Canada believes that they have adequately shared information with the clam harvesters, while the clam harvesters and Canadian Food Inspection Agency contest that claim. Until recently (March 16th, 2010 Personal Observation) water quality tests had still not been provided, although the clam harvesters and others had attempted numerous times to obtain them (Wiber and Bull 2009b:9). Moreover, the information/data conflict served to fuel distrust thus inflaming relationship conflicts among the parties. Indeed, clam harvesters report being told that the reason they are not given the data is that they might try to use the data to press for a reopening of closed beaches (ibid) and that they are not smart enough to understand the data. One Environment Canada informant stated that: “clients

have difficulty understanding the different sets of data and what they pertain to. They have difficulty understanding the nuances”.

Similar problems arose in connection with failure to provide information relating to water quality⁴⁷. As Moore (1996) and Pirie (2000) explain, failure to attend to information/data conflicts produces conflict escalation. Consistent with those assertions, such escalation happened in this case. Water test results determine the suitability of specific growing areas for various harvesting activities (Wiber and Bull 2009b) and whether beaches will be opened or closed. Escalation of the conflict in this case occurred because closures were put in place with little to no data having been released to clam harvesters in support of the closures. Furthermore, opportunities for knowledge building projects through collaborative and cooperative research were overlooked. For instance, at a Canadian Food Inspection Agency updates meeting on March 16th, 2010, the concern was raised that there continues to be issues with bad press when clam harvesting beaches are closed due large amounts of rainfall causing overflows of the Digby waste water treatment plant. Not only is the clam industry being affected because of the closures, but the public assumes that the clams on the market are dirty or polluted which has had negative consequences on their sales. There was an appeal to create a project to address the issues of poor sales. There was some discussion about using the

⁴⁷ A similar problem regarding transparency and sharing of information was noted by Wiber and Bull (2009b). The Annapolis Watershed Resource Committee have had to rely on Environment Canada for water quality testing because they do not have a laboratory that meets Environment Canada standards for water quality testing. Despite their efforts as a quasi-governmental group, they have found it difficult to establish how often survey sampling is taking place, who is doing the sampling and how the samples are being processed (ibid). Wiber and Bull (2009b:9) note that these circumstances are in direct contrast with the experience on the other side of the Bay of Fundy in New Brunswick where clam harvesters, in cooperation with Easter Charlotte Waterways have negotiated the right to test water samples to determine whether beaches should be open or closed.

Canadian Shellfish Sanitation Program's Conditional Management Plan to create an advertisement campaign in order to strengthen the quality and assurance of the product; however, the proposal quickly faded when the question was raised as to whose mandate it was act on the suggestion. These types of interactions and missed opportunities have created mounting suspicion and frustration, resulting in the inflammation of the relationships dimensions of the conflict.

Additionally, as discussed earlier in Chapter 6, contradictory information was circulated with respect to the role of the United States Food and Drug Administration audit in the new safety protocols. This too caused significant confusion, suspicion and distrust. From the perspective of the clam harvesters, failure to divulge, contradictory information, and information conveyed in a technical manner such that it was accessible only to the experts, heightened lack of trust. The end result was that clam harvesters questioned the very legitimacy of the scientific processes used to justify government regulations. Pinkerton and John (2008), who studied effective local regulatory regimes for clams in a British Columbia Aboriginal community, provide important insights into this issue of information exchange in connection with establishing scientific legitimacy in management practices. The authors explain that, in order for scientific processes to be considered valid, the scientific process must be made understandable such that both the manner of data collection and the conclusions reached are perceived to be unbiased and fair (Pinkerton and John, 2008:681). This requires an understanding among all parties of moral principles and values that underpin the rational, legalistic, logistical and scientific management (ibid:688). In CHA2, however, overt conflicts continue to exist as confidence in scientific legitimacy is lacking, largely because the process of collection

of scientific data was not transparent or open to public scrutiny. The end result is distrust of the data and particularly the connections made between the science and the beach closures (ibid:686). It has been noted that “the use of natural science in the context of a cooperative and highly communicative relationship plays a key role in legitimacy creation” (Soto 2006; Schumann 2007 as cited Pinkerton and John 2008:688). In this case, the absence of attention to opportunities for trust building and to the creation of collaborative, positive relationships, in the context of inadequate transfer of information, resulted in the questioning of scientific validity of data. In this context movement toward a cooperative, integrative and sustainable management of the resource becomes next to impossible.

Competing Values

The negative consequences of failure to address information and data conflicts are exaggerated in this case by the presence of yet another conflict type: value conflict. Moore (2003:404) states value conflicts “challenge the identity of individuals or groups” because values are intimately connected to identity. Identity is defined by Northrup (in Moore 2003:404) as:

...an abiding sense of self and of the relationship of self to the world. It is a system of beliefs or a way of construing the world that makes life predictable rather than random.

The deeply rooted principles that make up values and identity often prevent disputants from recognizing the importance of values held by others (ibid). As a result, value conflicts are among the most difficult forms of conflict to resolve. Clearly competing values associated with identity were involved in this case:

....privatizing instead of leasing, it's almost the same bloody thing because it gives them the right to all the fish that is in that area.

Clam Harvester

...the clam beaches are owned on behalf of the people and managed by the Crown, because the Crown has the ability through legislation to lease them for the economic gain of individuals and corporations.

Simon - Nova Scotia Department of Fisheries and Aquaculture

In CHA2, both the clam harvesters and government regulators view the clams as a resource and as a form of property. However, the parties differ as to who should benefit from that resource and what form their rights in the resource should take. As F. and K. von Benda-Beckmann and Wiber (2006:2) note, property is the “legitimate cloth of wealth as property systems structure the ways in which wealth can be acquired, used and transferred”. Canada, similar to many contemporary states, has a plurality of property ideologies and legal institutions, often rooted in different sources of legitimacy, including local or traditional law, the official legal system of the state, international and transnational law (F. and K. von Benda-Beckmann and Wiber 2006:3). These include both *de jure* and *de facto* rules of access and of withdrawal that may overlap, complement or even conflict with one another (Schlager and Ostram 1992:255). Values influence *de facto* rights, which are a matter of practice not founded upon law (Gifis 1998:127).

Values are said to run deeper than interests because they are “connected to identity, they appear to be inherently personal, subjective, developed as a matter of tradition and socialization” (Forester 1999:465). Values are associated with worldview; they help to construct and define viewpoints from which we operate within a culture or society and the lens through which we interpret the surrounding world (Bush and Folger

1994:236). Values determine what is important in human nature and the social structure (Forester in Susskind, McKearnan and Thomas-Larmer 1999:463). Because values are intimately connected to who we are and aspects of the world that we cherish, they are not “amenable to change by persuasion, rational argument or even bargaining” (Forester 1999:465). Moore (1996:234) explains that value disputes focus on issues such as “guilt and innocence, what norms should prevail in a social relationship, what facts should be considered valid, what beliefs are correct, who merits what, and what principles should guide decision makers”. Although parties may have values that are so fundamentally different, and they will never be able to reach full consensus, practising “facilitated dialogue to explore common ground, build trust, develop respect and even formulate collaborative action projects” (Forester 1999:464) can allow participants to understand each others' perspectives and can allow satisfying agreements on interests and resources associated with the competing values. In other words participants can agree to disagree on fundamental values, while attempting to reconcile common and overlapping interests associated with those values. These conflict resolution practices coincide with the way Keen and Mahanty (2006 as cited in Charles et al 2010:32) maintain that integrated coastal zone management should function: “...with an open discussion of values and objectives promoted in planning exercises for any given geographic area, as well as open sharing of relevant information—thereby providing the opportunity for wider knowledge and skill base sets to be used in decision making”.

As the two quotes above indicate, the leasing of Crown beaches to the private company, Innovative Fisheries Products has led to a value conflict between governing agencies and clam harvesters in CHA2. Both federal and provincial agencies express

support for the idea of privatizing crown land beaches (Schlager and Olstram 1992), while clam harvesters have traditionally and historically harvested clams as ‘multiple holders’ and enjoyers of a common resource (Sullivan 2007; Wiber and Bull 2009a; Charles et al 2010). The beaches that are used for clam harvesting have always been regarded by clam harvesters and by other members of the public as ‘common property’ (F. and K. von Benda-Beckmann and Wiber 2006:4). They view private leases as a mechanism through which government is creating new forms of private property by taking away the communal property of harvesters (ibid:30). In contrast, the regulatory agencies assert a 'legitimate' power to manage ‘Crown land’ as state property for maximum benefit of society (ibid:9). These perspectives in turn reflect fundamental value differences in connection with property. Government officials reflect values associated with Canada’s central economic practice of capitalism wherein anything other than individual private ownership is regarded as unproductive of economic growth (ibid:9). For example, the comment by Simon above suggests confusion over two rights: “the right to regulate, supervise, represent in outside relations and allocate property on the one hand and rights to use and exploit property on the other hand” (F. and K. von Benda-Beckmann and Wiber 2006:17). Pinkerton and Silver (2010:5) argue:

...the creation of a system allowing private tenuring which involves farming practices being imposed on formerly wild clam beaches, can be seen as a ‘cadastralization’ or what others refer to as privatization. This type of tenure delineates holders access rights to beaches, rights to exclude others from the beaches, management rights (how to harvest, what to harvest and size limits) in addition to alienation rights (leases may be subleased or sold).

The conflict in this case is inflamed by value disputes surrounding the nature and meaning of property: collective entitlement to communal property in support of coastal

communities on the one hand and private control and industrial growth on the other. Few effective attempts have been made to consider or to respond to competing values associated with competing interests in this case (Wiber and Bull 2009a).

Instead, as we shall see in more detail later in this chapter, the governance process -- the mechanisms and processes by which power and decision making are allocated among different actors (Schlager and Ostrom 1992; Ostrom et al 1994; Bene and Neiland 2005; in Kearney et al 2007:82) – has been non participatory and exclusionary (FAO 2007). Indeed in individual interviews, government informants were not prepared to consider alternatives to privatization. Maltner and Schrag (2006:50) maintain that during processes of decision making or negotiation, disputants might use the tactic of claiming that they do not have the authority to compromise. They do so by persuading an opponent that they do not, and cannot obtain the power to discuss issues past a certain point, thereby rendering the topic ‘non negotiable’. An example of this is illustrated in the approach used by government regulators who rendered the topic of privatization ‘non-negotiable’ to clam harvesters, arguing that neither the government nor the harvesters have the authority to deny Innovative Fishery Products the ‘opportunity’ to own leases.

Although government regulators perceive their ability to exert power as ‘legitimate’, power based approaches seldom resolve conflict (Deutsch and Coleman 2000). Pirie (2000) and Morris (2002) explain how methods that are competitive, adversarial and value claiming tend to escalate and expand conflict. Because there is overt conflict between the governing agencies and clam harvesters, there is inadequate discussion of the changes to rules of access and withdraw from resource stocks.

Ultimately, the dispute is over the values that are influencing management decisions with consequences for processes of governance. Because of the complex nature of value conflicts and their deep connection to identity, they are very difficult to resolve (Moore 2003:235). Asking disputants to compromise their principles is not suitable for value conflicts because compromise is seen as invalidating and threatening towards identity and worldviews (ibid). Value conflicts require more sensitive strategies such as listening and learning, inventing and improving (Forester 1999:468); transformational processes allow parties to build interpersonal relationships by gaining an understanding and respect for the others' values, identities and world views (Bush and Folger 1994; Morris 2002).

Structural Conflict

Structures can be described as “institutions, organizations, systems and practices or other physical or psychological forms of ordering human affairs” (Moore as cited in Pirie 2000:69). Moore (2003) explains that structural conflicts arise as a result of unequal power or authority; unequal control, ownership or distribution of resources; limited resources and inequalities arising from various political, social and economic orders. Therefore, structural conflict can be associated with institutional structures, divided, overlapping or unclear jurisdictions - the institutional structures that prevent forward momentum.

In this particular case dealing with the information/data and the values components of the conflict was made more difficult and complex by the existence of yet another dimension of the conflict. Structural division in jurisdiction, power and

responsibility within government resulted in the ability of all government officials to deflect responsibility and to avoid dealing with the conflict. More particularly, the Canadian Parliament has allocated bureaucratic authority to Fisheries and Oceans to bring various users together for integrated coastal zone management (Canada's *Oceans Act*, 1996). As discussed in the chapter on governance, however, clams as a resource are subject to several different management regimes – local, provincial and federal - not all of them a product of the Canadian government. Policy documents, policies and organizations authorize different actors to play a role in managing the resource. Yet despite multiple actors, jurisdictional issues overlap and are often poorly defined. The result, in this case, was that many of the interests that required consideration and resolution fell through the cracks. They were considered no one's jurisdiction or responsibility. This was illustrated for example in a comment made by Jason from Department of Fisheries and Oceans:

Well because there is issues such as compensation, there is issues as far as classification and those are things that [pause], it's based on the information that is available at that particular time and that's [pause], the compensation is beyond the people that were at the meetings.

Moreover, in this case, the conflict was made even more complex by cross-sector divisions of power. More particularly, the conflict involved not only access to coastal resources but also environmental concerns, areas of responsibility and power that involved multiple government institutional sectors. Furthermore, the conflict had not only provincial and national dimensions, it also involved international concerns. In short, structural dimensions of this conflict were associated with divisions within and among governments. In the absence of attention to structural change to resolve

institutional jurisdiction issues - who is responsible for what - and to ensure that all necessary decision makers are at the table, such structural divisions, as Moore cautions, will prevent effective resolution. Indeed we see the results in this case-- jurisdictional arguments enabled deflection and avoidance of responsibility. This was illustrated in chapter 6, when Paula from Department of Fisheries and Oceans stated:

ICZM is an Oceans and Habitat initiative. We end up getting [pause] well here in Resource Management, we are a portion of it, that's it. The information that I would have would be things that I have read on what they are doing in certain areas... sometimes we participate in that if parts of our fisheries are in that, but we don't look at IM. We are a part of it, but we are not the ones that are totally responsible for that, it's an Oceans initiative. It's in the Oceans Act.

The following quotation from a clam harvester demonstrates their perception that no one is taking responsibility and government is 'passing the buck':

They are not being responsible. They are not taking any real heat for the stuff that they are doing. If you are going to do something and it is supposed to be a health interest, then look after the people that you displace. Either give them another job or something, and don't tell a clam digger that he now has to go take a welder trade, travel over to New Brunswick somewhere to work. Give them something that is in their area, that they have an idea of what they are supposed to be doing, feeling like they have a little bit more self worth.

There is no horizontal or vertical integration of parties in the jurisdiction of CHA2. Yet, it is clear that, in connection with the effective management of coastal resources, descriptions of responsibility and practice must share a common language: partnerships; consultations; decision making; sustainability and conservation. Otherwise, key actors will continue to operate at cross purposes.

Relationship Conflicts

There is no trust with government and us anymore it's gone. I don't trust government.

Clam Harvester

We have done our best to explain it in such a way that people will understand; you know, if people's incomes are affected, it's very easy to be very distrustful.

Sterling - Department of Fisheries and Oceans

In this case failure to respond to structural dimensions of the conflict combined with inattention to transparent information and data exchange that inflame pre-existing value conflicts has had serious implications for the relationship dimensions of the conflict. Moore has described relationships as involving: "continuing or past social interactions that vary in duration, physical proximity, purpose and emotional involvement" (as cited in Pirie 2000:67). There are two basic types of relationships: (1) Professional task-oriented relationships in which the parties' interests and activities are primarily focused toward an accomplishment of goals that is external to their relationship; (2) Personal, socio-emotional relationships whose primary focus is the relationship itself and the persons in the relationship (Deutsch and Coleman 2000:88). The connection between the clam harvesters and governing agencies in CHA2 is predominantly professional as the government focus is on the management of the clam resource. However, there is a certain level of the personal, socio-emotional involvement as well given the level of interaction that managing the resource requires. In relationships: "some elements hold varying degrees of trust, while others hold varying degrees of distrust" (ibid:92). Trust is defined as "an individual's belief in, willingness

to act on the basis of, the words, actions and decisions of another” (Lewicki and Wiethoff 2000:87). These assumptions about trust are dependent upon personality, predisposition, reputation, stereotypes and actual experiences over time (Deutsch and Coleman 2000:92). When individuals and parties with an interest in a natural resource have developed complex relationships (Pinkerton 1996) that are based on trust, recognition, understanding, loyalty and responsibility (Dukes 1993), parties are more likely to jointly agree on management plans and participate in collaborative projects such as “data sharing, research, enforcement planning, future consideration of joint enhancement strategies and the coordination of potentially conflicting users” (Pinkerton 1996:66).

A lack of trust between individuals and parties is inextricably linked to the deterioration of relationships, leading to conflict (Lewicki and Wiethoff 2000). A lack of trust can arise as a result of “competitive negative behaviour; poor communication or miscommunication; misperception of stereotypes or assumptions about behaviour” (Moore in Pirie 2000:67) and can result in interpersonal and intergroup conflict. Interpersonal conflict is described by Fisher (as cited in Deutsch and Coleman 2000:167) as a situation in which one or both parties in a relationship encounter difficulty in working or living with each other. It can occur as a result of different or incompatible needs, goals or styles (Fisher 2000:167) and can escalate due to: “distorted communications, stereotyping, strong emotions, and destructive behaviours” (Elliot 1999:214). Intergroup conflict has similar characteristics; however, it is additionally described as “not simply a matter of misperception or misunderstanding; instead, it is based in real differences between groups in terms of social power, access to resources,

important life values or other significant incompatibilities” (Fisher 2000:167). The existence of any type of conflict, whether it is interpersonal or intergroup, implies some form of interdependence or relationship (Deutsch and Coleman 2000:23).

Inattention to transparency and to the interest/data elements of this conflict generated distrust negatively influencing the relationship components of the conflict. Clam harvesters repeatedly stressed a loss of trust in government regulators. As one harvester said:

If you can't trust the people who are supposed to be giving you the insight and the information, how can you go and, how can you move forward?

Sterling's quote above acknowledges this distrust, but a number of factors apparently made it difficult to rebuild trust.

In the January 2009 information session, for example, the Department of Fisheries and Oceans implied that the Department of Environment Canada was to blame for problems with information flow. Fisher, Ury and Patton (1991: 25) explain that even if blaming is warranted, in most circumstances it is counterproductive. In this case, the blame that the Department of Fisheries and Oceans placed on Environment Canada was indeed counterproductive. It put Environment Canada under attack when officials from Environment Canada were not present to defend themselves or address the issue. Furthermore, it is likely that the absence of transparency and the failure of government to respond to the structural dimensions of the conflict (the failure to ensure that the correct people with decision making power were at the table) enhanced clam harvester suspicion of Environment Canada, especially given the reluctance to release data. The end result is a continuing suspicion about Environment Canada's role in the

classification of beaches. Malinda, Sterling and David all acknowledged that lack of trust the clam harvesters have for the three governing agencies; all recognized that ‘secrecy’ and the insecurity of harvester livelihoods are major issues but no effort was made to respond to such issues.

Another reflection of lack of trust between the parties (Kriesberg 1998) stemmed from harvester perceptions that they are being ‘divided and separated’ by government agencies. Harvesters specifically cited the Department of Fisheries and Oceans on this issue. Throughout the focus group sessions, harvesters returned to the terms “divide and conquer” and “divide and separate”. Not only did the failure to address the conflict result in distrust between harvesters and government, harvesters complained that government strategies resulted in division and distrust among harvesters themselves. They explained that the Department of Fisheries and Oceans had tried to ‘divide and separate’ the clam harvesters from Digby and Annapolis counties on three separate occasions. One harvester noted:

...we guys have already been divided, we’ve been zoned...and then after a while they divided Digby and Annapolis for size limit...Now DFO is switching their guns to open areas and closed area diggers...

As a result of separate zones for harvesting, two separate associations had been created to represent diggers from both regions. At industry meetings, there are separate seats for representatives of both regions and the harvesters argue that this arrangement led to poor representation:

If you got one guy from Annapolis and they ask his opinion, it could overrule say 50 or 100 diggers on [the] Digby side...

The two associations eventually decided to unite so that they could have a unified voice. The latest divide between harvesters is also referred to above; one harvester mentions that he no longer communicates with clam harvesters who work for the depuration company: “I don’t communicate with dep diggers anymore”. “Dep diggers” refers to closed area harvesters who work for the depurator facility. Sterling (Department of Fisheries and Oceans) attributes the animosity between the open and closed area harvesters to the fact that:

...there are many harvesters that depend on the depuration systems... they made good money when they worked the open areas and the depuration areas and that’s part of the jealousy in the whole system... So they are sort of double dipping so you have some harvesters who feel principled, who don’t agree with the system, who only dig in the open areas, and feel like the people who are harvesting the closed areas shouldn’t be into the open areas...

Recall from Chapter 6 that this quotation demonstrates that Sterling recognizes that privatization and changes in the ability of clam harvesters to access resources are causing tension between open and closed area clam harvesters. The open area clam harvesters do not agree with privatization because it has forced some clammers to abandon their fundamental values associated with collective property entitlements such that they are now working for the depuration company. Thus, clammers have been divided into those who have maintained their values but suffered from economic exclusion and those who have abandoned values and have accepted privatization in order to support their families. Similar to Sterling, David (Canadian Food Inspection Agency) made a comment arguing that the open area and closed area clam harvesters have “polar opposite opinions”. He also makes a personal observation indicative of the

inflamed relationship between government and the independent harvesters who fail to simply give up and accept government plans, when he describes them as “volatile”.

Not only have relationship problems been created between independent clam harvesters and closed area harvesters, it appears that the independent clam harvesters are also in conflict with the owner of the depuration company. The inflamed relationship dimension of this conflict is indicated by a clam harvester who spoke of being confronted in an adversarial, aggressive manner by the depuration owner:

Everybody was saying and doing what [the Chief executive officer or IFP] wanted all around the table...he was down there beating the tables, swearing at me and all that.

Indeed representatives of the Department of Fisheries and Oceans have gone so far as to view the problem as a “personality clash” between the independent clam harvesters and the depuration plant owner. What is interesting is that the government participants recognize but do not make any effort to address the source of the relationship dimension of this conflict. Instead, the government regulators “personalize” and then avoid institutional responsibility for these conflicts. Thus, they shift blame and thus responsibility from themselves onto other combatants.

For the harvesters, relationship “divisions” within the harvester group have been recognized and acknowledged. Efforts have been made to unite and to reconcile differences. They know that division influences their agency as ‘claimant or authorized user’ of clam flats (Wiber and Kearney 1996:150). Furthermore, division negatively affects harvester regulatory capacity – and is one of the “consequences of multiple agents, a corresponding multiplication of rules pertaining to the resource both at the

level of utilization and of management” (ibid). Therefore the implications of the relationship conflict are much more complex than initially appears.

On the surface, these disputes might appear insignificant, as conflict is inevitable when multiple actors share interests in a limited resource such as clams (Bastian Daigle et al 2006; McFadden 2008). In actuality, however, when relationship conflicts are not brought out into the open and dealt with, they persist and escalate because the relationships between the parties fundamentally change (Maiese 2003). Negative attitudes and perceptions, as well as stereotypes of opponents increase, which in turn fuels emotions such as anger and fear (ibid), resulting in threatening behaviour. Relationship conflicts between stakeholders in the clam harvesting industry are a difficult barrier to integrated coastal zone management particularly when, as seen here, people stop interacting and communicating with those they do not respect or like. Maiese (2003) points out that in such circumstances substantive issues are particularly difficult to resolve. Thus, in this case, inattention to the data and information components of this conflict inflamed the pre-existing values dimension of the conflict and both had a predictable and negative consequence on relationship dimensions of the conflict, causing, as we saw in Chapter 6, strained relationships, to the point of aggression, threats and severed relationships.

Setting the Agenda

Now we shall examine how failure to attend to comprehensive conflict analysis and to identify the multiple dimensions of this conflict affected government processes, beginning with an examination of the setting of meeting agenda.

Oh you get a chance to send your agenda down, but it's a matter if they address it or how much they address it or if they want to address the thing...

Clam Harvester

It was a cooperative between our management of DFO, CFIA and EC to set the agenda. Because it was really focused more on one issue, the agenda, as opposed to having just a harvesting area meeting...

Jason – Department of Fisheries and Oceans

McFadden (2008) maintains that successful integration in coastal zone management is dependent upon the creation of coastal policies through an agreement building process. In theory an agreement will be more likely with a clearly set agenda (Flynn and Gunton 1996: 106) collectively developed by interested actors (Straus 1999:295). Moore (1996:232) suggests that if a mutually acceptable agenda is established at the onset of any process, then conflict or differences can shift procedurally from contention to cooperative interaction (Bush and Folger 1994). The creation of a mutually agreeable agenda will not resolve conflict, but it can identify the substantive, procedural and psychological interests and issues that must be addressed so that an effective process can be developed to discuss them (Moore 1996:232).

There are a number of reasons why it is important to recognize the concerns of actors and there are a variety of methods in which their validation can take place. For example, participants need to feel that they are in a 'safe' environment where they can voice their concerns and ideas without the risk of being ignored, ridiculed or criticized by other participants (Moore, Longo and Palmer 1999:569). More importantly, actors must have an equal opportunity to contribute to the agenda because if key issues are left off of the agenda then credibility may be challenged (Trace 1995).

Instead of a collaborative process, for the information sessions held and facilitated by the Marine Resource Center, a pre-established agenda was posted at the front of the room for participants to observe. As the meetings commenced the session chair outlined the topics that were on the agenda and asked whether invitees had any specific subjects to add under the major headings. At both the June 2008 and January 2009 meetings, government regulators, at that point, asked that time be provided to them for power point presentations on the new Conditional Management Plan regulations. At the 2009 meeting the clam harvesters association wanted to add a discussion of methods to clean up the Basin and a discussion of the issue of compensation.

During the interviews, when participants were asked whether everyone could add to the agenda, responses varied. For example, Malinda (Department of Fisheries and Oceans) admitted that the agendas were pre-designed, but assured me that a common practice in all meetings was that nobody would be “shut out of any subject matter that they wanted to bring up”. Jason (Department of Fisheries and Oceans) and David (Canadian Food Inspection Agency), on the other hand, asserted that information meeting agendas were created cooperatively by the three Canadian Shellfish Sanitation Program partners and that there was justification for doing so, because the purposes of the meetings were very specific. From the government perspective, the intention of the meetings was merely regulatory and informational. The purpose was for the Canadian Shellfish Sanitation Program partners to explain the new government regulations, the way that they were going to be implemented and changes that would take place as a result. With respect to meetings held by the Southwest Nova Scotia Clam Advisory Committee and the Nova Scotia Shellfish Working Group, on the other hand, a clam

harvester explained that they were given the opportunity to add issues of concern to the agenda but that whether the issues were adequately addressed was another question.

This same dynamic was also apparent in the information meetings where clam harvesters were 'allowed' to place items on the agenda, but power point presentations and preset agenda items dominated the discussion.

Gensberg (2003:13) states that problems can arise when certain interests are not represented in an agenda and that the ultimate expression of a power imbalance in a public dispute is for less powerful groups or interests to be shut out of the dialogue. This was the situation for the Municipality of Digby and the scallop industry, who were not adequately represented at the table because they were not integrated into the process. The failure to include these key players had serious implications for all parties. It was evident that the development of the agenda was principally through horizontal engagement with a focus on the issues of concern to the three governing agencies. DEFRA (2008:31) explain the twin concepts of vertical and horizontal engagement as follows:

...vertically (joining-up national, regional and local policies) and horizontally (joining up across policy areas at all levels.

DEFRA (2008) goes on to suggest that this type of integration benefits communities by allowing them to create or improve a sustainable future. However, as illustrated in Chapter 6, only after the agendas were created by governing agencies was there an attempt at vertical integration (ibid) which stopped before including local issues. While there is some debate in the literature as to whether facilitators or stakeholders hold the responsibility to ensure that interests are being expressed and

understood in public policy dialogue (Gensberg 2003), in this case, because of insufficient vertical and horizontal integration, and limited discussion, collaboration or agreement on the agenda, non government interests were ignored.

There is another consequence of the way that the agenda was developed which brings perspective to these problems. Given the descriptions of both clam harvesters and government regulators, it was clear that most meetings had a ‘simple agenda’. In this style of agenda: “issues for negotiation are taken one at a time, in an order prescribed by one or more parties” (Moore 1996:245). Generally the party proposing the agenda has “sequenced the items in a manner that will be advantageous to achieving benefits for himself” (ibid). Gulliver, as cited by in Moore (1996:245), argues that this approach:

...attempts to ignore the essential problems of multiple criteria: that issues are often interconnected in the social life of negotiations and that, in any event, they are necessarily interconnected within the specific context of negotiations in progress.

The implications of this became evident when government officials made reference to structural jurisdictional issues to claim that discussion of harvester interests was beyond the mandate of the governing parties. An immediate consequence of the ‘simple agenda’ – that it encourages tactics of delay and manipulation in order to gain leverage on items — was apparent in this case.

Indeed various strategies were used to subvert discussion of the concerns of the clam harvesters. We saw, in chapter 6, the results of failing to address power imbalances caused by the political order (Moore 2003) resulting in competitive orientations that were potentially destructive in nature. The power of the governing agencies was enhanced by control over the agenda, which in turn reduced the ability (and power) of

the clam harvesters to have their values and objectives equally discussed in a forum. Deutsch and Coleman (2000:26) maintain that when “conflicting parties seek to enhance their own power and reduce the power of the other, any increase in power of the other is seen as threatening” and ultimately results in an escalation of conflict. It is apparent that this form of agenda setting was insufficient and inappropriate and that it contributed to the escalation of conflict between governing agencies and clam harvesters. The government regulators present at the information sessions deliberately and coercively used their power derived from the social structure to set the agenda. As Pirie (2000:143) points out, when power is used in this way, the result is that all participants become less and less mutually influential and the conflict becomes more and more destructive. In this case, it allowed the government regulators to dominate the information sessions by sticking to long power point presentations and as a result they diverted and ignored community questions. The actions of the government regulators have impaired the ‘constructive use of power’. ‘Constructive power’ is ‘power with’ in that it is mutually produced, coercive and non coercive (Follett as cited in Deutsch and Coleman 2000). A lack of constructive use of power in this case resulted in increased levels of hostility and distrust toward government regulators.

The Government Processes in the Context of Conflict, Structure and Power

...the worst thing that happened was that they were going to make closed door deals before the leases to start with. If we wouldn't have known about that they would have slipped that right by us...

Clam Harvester

...anytime somebody wants to come and make an investment in depuration, throw one million dollars on the table and say we are in, we want to establish a depuration [plant], then we would issue beaches...

Sterling – Department of Fisheries and Oceans

The process that followed the setting of the agenda consolidated existing power relationships, contributing to further difficulty. Bartos and Wehr (2002:35) state that:

...modern societies view bureaucratic power as a valid form of power – a person holding a high position in bureaucracy is presumed to have legitimate power if he or she is chosen in accordance with specific written rules and follows the prescriptions of the office.

Thus, when regulators (Department of Fisheries and Oceans, Canadian Food Inspection Agency and Environment Canada) are issued authority to manage a resource they are empowered. However, there are some limitations on this power due to a plurality of rights, property ideologies and legal institutions (F. and V. von Benda-Beckmann⁴⁸ and Wiber 2009b:24; Lee 1993). Clam harvesters, as beneficiaries of the resource, also have some power and agency that they can exercise. Further, power can be employed and contested under many different circumstances.

Taking advantage of broad power imbalances between actors in CHA2, the government attempted to dominate discussions affecting clam harvesters, both with respect to the leases and with respect to the changes in the Conditional Management Plan regulations; at that point, the real power disparity involved became problematic (Bartos and Wehr 2002:31). While some people automatically assume that power relations will be inherently unequal, or win-lose, others see potential for collaborative

48 For further information on relationships in property regimes see Franz von Benda-Beckmann, Keebet von Benda-Beckmann and Melanie, Wiber (2009) Chapter 1: The Properties of Property: Berghahn Books.

power sharing (Deutsch and Coleman 2000:117). Integrated coastal zone management has been touted as a forum where power contests can take place in a constructive and supportive environment, where shared decision making and participatory governance are advocated and practiced (Ali 2003; Jentoft 2005; FAO 2007; Kearney et al 2007; Bastian Daigle et al 2008; McFadden 2008). The power struggle described here, however, made a significant contribution to the conflict between governing authorities and clam harvesters in CHA2, but this power struggle also has serious implications for integrated coastal zone management.

As previously stated documents, policies and organizations authorize different actors to play a role in managing the resource. All this requires integration such that the descriptions of responsibility and practice share common language: partnerships; consultations; decision making; sustainability and conservation. Furthermore, in order to accomplish the objectives laid out in the policy documents, various sources suggest that deep democracy and participatory governance must be honoured throughout the process (Schneider 1999; Ali 2003; Jentoft 2005; FAO 2007; Kearney et al 2007; McFadden 2008; Charles et al 2010).

Recall that governance is “the mechanisms and processes by which power and decision making are allocated among different actors”, while management “involves decisions about use patterns as well as about transforming the resource by making improvements” (Schlager and Ostrom 1992; Ostrom et al 1994; Bene and Neiland 2005 cited in Kearney et al 2007:82). The conventional model of governance that Schneider (1999:522) provides differs slightly from that found in Kearney et al (2007) in that governance is defined as “the exercise of authority and control in a society in relation to

the management of its resources for social and economic development”. While the terms vary somewhat, neither definition explicitly acknowledges problems of information and agency (Schneider 1999:522). Therefore, by implication, it is assumed that decision makers have perfect or at least sufficient information about existing resources, human needs and alternatives for meeting those needs. In reality, information is asymmetric and unevenly shared among different levels (Curtis, Wiber and Recchia 2009). People outside government and bureaucracy, in this case clam harvesters who have considerable experiential knowledge, may “hold information to which the [regulators] have no access or incomplete access” (Schneider 1999:522). In such a case, genuine consultation (referred to by Arnstein 1969 as ‘partnership’) is one way that Schneider’s rationale for engagement can be played out.

Garmons and Simpson (1969: 161) define consultation as “to ask for advice or information of; to take into consideration; take counsel; confer”. Consultations can therefore have three meanings: (1) superiors consult with inferiors; ultimately superiors have the decision making powers, they do not share powers in the decision making, (2) multilateral or bilateral exchange of information, ideas and viewpoints; there is a mutual sharing of the decision making process, (3) consultation with experts; gain information without any implication of how information will be used. Based on Schneider’s logic and others (Ali 2003; Jentoft 2005; FAO 2007; Kearney et al 2007; McFadden 2008; Charles et al 2010) the type of process that should take place in integrated coastal zone management is the multilateral or bilateral exchange of information.

Flynn and Gunton (1996) provide an example of a multilateral exchange of information and power which allowed for government and interested actors to

successfully negotiate new policies and management practices. In their case study the involvement of non-governmental actors “extended beyond commenting on proposals to actual participation in site reviews, development of plans and negotiations of regulations” (Flynn and Gunton 1996:105). Arnstein (1969:221) refers to this arrangement as a ‘partnership’ rather than ‘consultation’. In partnerships “power is redistributed through negotiations between citizens and power holders through an agreement to share planning and decision making responsibilities” (ibid). Consultations can be a legitimate step towards the full participation of citizens if they are invited to share their opinions, however, too often ‘consultations’ are confused with ‘informing’. Emphasis is placed on a one way flow of information – from officials to citizens— citizens are informed of their rights, responsibilities and options (ibid:219); they are not involved in collaborative policy formation.

When the clam harvesters were asked to consider the way that consultations are being practiced in the clam harvesting industry, concern was expressed that the process was very top down. The distress is apparent in the quote in chapter 6 from a clam harvester about consultations:

You want to know how we found out about those leases? One guy [who works for government]...he is the only one that told us. If he didn't come up and tell us that we would have never known. They would have slid that all past us...

The clam harvester's response is a consequence of feeling as though they were not consulted at all about the private leases issued for a large part of the clam flats in St. Mary's Bay. Instead they felt like inferiors who were dictated to by superiors; they were not given the opportunity of a public process where the issue could be negotiated.

When Sterling (Department of Fisheries and Oceans) was asked to describe a meaningful consultation he commented that the government consults well and that problems of governance stem from the decision making process. However, when he reflected on the granting of leases to private enterprises, Sterling admitted to quite a different approach. He noted that leases should and would be issued to an interested party unless the clambers who were asserting access to communal property interests could convince the Department of Fisheries and Oceans that there was a good reason why they should not be issued. Jason (Department of Fisheries and Oceans), in describing the steps in the processes when there is a party interested in acquiring a lease, noted that it was not even required to document that consultation or negotiation had or should take place with affected stakeholders. While he suggested that a “process of networking to agencies and a public meeting” might be followed, he agreed that consultations would only happen only if concerned stakeholders demanded it from the Nova Scotia Department of Fisheries and Aquaculture. These government quotes regarding the leases validate the concern expressed in Chapter 6 by the clam harvester that government officials seemed concerned only with claims advanced by private commercial entities.

With respect to the implementation of the new Canadian Shellfish Sanitation Program regulations, a similar concern is expressed by clam harvesters. Interpreting the situation from a third person perspective (that of the Municipality of Digby) one clam harvester made the statement: “they basically sat down in front of them and said this is how this has got to go, this is the protocol, this is what’s going to happen...”. From his perspective, he felt that the regulators went about the process in an authoritarian way, by

consulting with superiors and with the Municipality as inferiors. This perspective is corroborated by David (Canadian Food Inspection Agency) when he explained the way that the three Canadian Shellfish Sanitation Program partners cooperated to develop the agenda for the information session: “here is what we are going to be doing, here is what you need to know, here’s what changes are going to be coming”. When David was asked about whether or not government regulators consulted with industry stakeholders, he responded that the Canadian Food Inspection Agency consulted with Environment Canada on the classifications of beaches so that the Canadian Food Inspection Agency could create a policy document. Malinda and Paula (Department of Fisheries and Oceans), however, both made the argument that what took place were not consultations but sessions where information was being disseminated on changes in regulations.

Malinda said:

The process is non debatable; this is the process that has been decided, this is safe for human consumption and so that part is not up for discussion...So that is why by asking me about consultation I want to just clarify that what we are doing, we are not really consulting, but we are having information meetings...

Clam Harvester interests were not up for discussion or debate because decisions had already been made in support of food safety against clam harvester interests without discussion, negotiation or input. There was an overall consensus by government regulators that the implementation of the Conditional Management Plan and the effects from those changes did not warrant stakeholder consultation or any form of negotiation. These perspectives corroborate clam harvester assertions.

For both the issuing of leases and Canadian Shellfish Sanitation Program regulation changes then, neither industry stakeholders nor representatives from the

larger community were engaged in collective and collaborative policy formation. Instead, the “power holders restricted the input of citizens’ ideas” solely to the level where their participation was merely a “window-dressing ritual” a concept documented by Arnstein (1969:219). Wiber and Bull (2009a) note that public consultations were in fact not instigated by governing agencies, but by the Annapolis Watershed Resource Committee and the Marine Resource Center. Further, it is clear that the government approach to consultation and decision making is authoritarian and endorsed by the governing authorities. As a result of this endorsement (also noted in Wiber and Bull 2009a) decisions are being imposed or ‘dictated’. Additionally, the resource is being assigned to one stakeholder (Innovative Fisheries Products) on economic grounds. The company is believed to have a ‘superior claim’ because of their private economic investment. The outcome is a power based, distributive, top down decision that is producing significant conflict between the clam harvesters and governing agencies. Furthermore, the outcome is not consistent with the objectives of the government's own integrated coastal zone management policies that mandate broad public participation of those who are directly dependent on coastal resources for their livelihoods (UNCLOS as cited in Kearney et al 2007:81).

Avoidance of Conflict

Themes that emerge from the data discussed in Chapter 6 reveal that government power - over setting the agenda and control of process - and the structural jurisdictional dimensions of this conflict were utilized by government officials to consolidate control and power in an unusual way. One does not encounter here a creative policy response to

the conflict on the part of government. Instead, power was exercised in this case in an exclusionary manner in a way that allowed government officials to avoid dealing with the conflict altogether. Avoidance might take the form of diplomatically sidestepping an issue, postponing an issue until a better time, withdrawing from a threatening situation (Thomas and Killman 2001: n.p) by absenting oneself from conflict (Menkel-Meadow 2006:6) or denying any conflict exists (Sandy, Boardman and Deutch 2000:308). Avoiding conflict can have constructive consequences such as allowing for the reduction of tensions to a productive level where perspective and composure can be regained, or allowing time to gather information that outweighs the advantages of an immediate decision. However, overall the consequences of avoiding conflict are understood to be negative (Thomas and Killman 2001:n.p.).

Now if there is a personal conflict... we do not get involved in that, we cannot, that [conflict involves] business. And whatever reasons that they may have for firing or hiring is their issue.

Paula – Department of Fisheries and Oceans

The Canadian government has an official mandate to mediate in resource user conflicts (Bastien Daigle et al 2008:118), and has furthermore defined integrated management as: ‘managing activities so that they do not conflict with one another’ (see *Canada’s Oceans Action Plan*, DFO 2005:13). The government has empowered the Department of Fisheries and Oceans to develop a structure for conflict resolution mechanisms (*Policy Framework for the Management of the Fisheries on Canada’s Atlantic Coast* 2004:27). The policy framework specifically states that the Department of Fisheries and Oceans will encourage conflict resolution through mechanisms of alternative dispute resolution. Additionally, the Canadian Food Inspection Agency objectives are to “prevent or

resolve all conflicts in a fair, timely and reasonable manner” (Canadian Food Inspection Agency 2010: n.p). The Nova Scotia Department of Fisheries and Aquaculture (*Fisheries and Coastal Resources Act*. 1996, c. 25, s. 1) also has instructions that: “for the purpose of resolving a dispute, the Minister may refer to a form of ADR” (Nova Scotia House of Assembly 1996: n.p.).

It has been argued by alternative dispute resolution theorists and practitioners, that for any conflict to be addressed and dealt with it must first be recognized as a wrong, so that blame can be attributed to an identifiable entity and claimed when that entity takes responsibility (Felstiner, Abel and Sarat 1980). However, actors who are asked to take responsibility may choose to ignore the problem in an effort to avoid conflict. Bartos and Wehr (2002:82) argue that although an individual or a party might make a last effort to avoid addressing contentious issues, if all of the elements are in place in that problems have been left to simmer and escalate, all that is required is a trigger event for open conflict to begin. In this particular case, the major theme that emerged from analysis of government responses, discussed in chapter 6 was a strategy of conflict avoidance. Indeed Paula (Department of Fisheries and Oceans), indicated that her department had no responsibility to intervene in conflicts, especially conflicts involving “business” dealings. Moreover, Simon (Nova Scotia Department of Fisheries and Aquaculture) maintained that government processes are designed to avoid conflict:

I would emphasize the process in itself... it has as its main goal avoiding conflict and avoiding impact on others...

While avoiding conflict can have constructive consequences in some situations, when conflict is escalating, as in this case, conflict avoidance serves little purpose other

than allowing the conflict to grow (Thomas and Killman 2001:n.p.). We see the results in this case wherein avoidance of conflict in CHA2 has resulted concerns on all sides about the potential for violence. Data discussed in Chapter 6 revealed a request for the presence of the RCMP because the Department was concerned that the clam harvesters were going to “rip and tear and beat them apart because they know that they are screwing with our livelihoods”. Comments by the government attendees confirmed this impression, noting that meetings were tense with talks of protests and placards and the potential for violence. Given these examples and the use of terms such as nervous, tense, violence, threats and intimidation, it is apparent that the conflict is escalating. Despite mechanisms (i.e. government policies) mandating government action to ensure that conflicts are addressed, in this case overt conflicts were being systematically avoided. Instead of collaborative integrated coastal zone management, we find an escalating conflict with potential for violence.

Impact on Integrated Management for Coastal Zones

Recall that integrated coastal zone management is supposed to be driven by the Department of Fisheries and Oceans as the lead agency and should theoretically involve:

...comprehensive planning and managing of human activities to minimize conflict among users; a collaborative approach that cannot be enforced on anyone; and a flexible and transparent planning process that respects existing divisions of constitutional and departmental authority, and does not abrogate from any existing aboriginal treaties (DFO 2002: ii).

Although there may be no traditional framework for integrated coastal zone management, ultimately the term and the ways in which it can play out –co – management and community based management-- implies a “power with” approach

rather than a “power over approach”. A “power with” approach is jointly developed (Follett as cited in Deutsch and Coleman 2000) integrative, productive, involves the capacity to build organizations and to bind people together to build legitimacy” (Boulding as cited in Ali 2003:179). Legitimacy is obvious to the extent by which it encourages the representation of a wide array of interested parties and involves those parties at all stages of the planning process—from identifying terms of reference, to implementing and monitoring the plan. The inclusion of various parties should not only be encouraged by policy makers through citizen and group engagement, but also in the representation of their values, interests and concerns which are presented throughout the planning process and reflected in the final agreement (Mascarenhas and Scarce 2004:34).

In examining the clam harvesters, Department of Fisheries and Oceans and the Canadian Food Inspection Agency quotations, it is immediately obvious that there are divergent interpretations of what integrated coastal zone management is; how it should be implemented or practiced and by whom. The clam harvesters state that they value the theory of community based management as a form of integrated coastal zone management (which is espoused by Agrawal and Gibson 1999; Armitage 2005; Berkes et al 2001; Wiber et al 2004; Graham, Charles and Bull 2006). Therefore, they would like to have community based management as a process that is administered mainly by the community, with support and some direction from the government. This management style implies some level of shared decision making powers with government. Clam harvesters prefer this management system over delegating exclusive authority to one private company to manage and exploit the clam resources. This

contrasts with the description provided by the Department of Fisheries and Oceans participant Jason which is somewhat vague in that he describes that integrated coastal zone management as a process that takes into consideration all the different types of uses, impacts and “things you are having trouble with”. Although Jason’s description is unclear, he does implicitly recognize the larger coordinating role of the Department of Fisheries and Oceans in the management of clam resources. Similarly, David recognizes that the Canadian Food Inspection Agency is accountable as a partner in the Canadian Shellfish Sanitation Program and identifies the need for integrated coastal zone management to take place. Paula, however, who is also from the Department of Fisheries and Oceans, denies responsibility for integrated coastal zone management, citing that it is a “Oceans and Habitat initiative” (i.e. another branch of Department of Fisheries and Oceans) and not one that her department is specifically concerned with. While the clam harvesters were able to clearly articulate an approach to integrated coastal zone management, government regulators, particularly the Department of Fisheries and Oceans, were less able to demonstrate an understanding of the government’s role in promoting integrated coastal zone management. Furthermore, there appears to be no comprehensive framework for setting out the roles and responsibilities associated with integrated coastal zone management.

What does all of this mean for the future of integrated coastal zone management in Canada? The situation looks bleak. The fundamental objectives that integrated coastal zone management seeks to accomplish – sustainable development of the oceans and fisheries resources through participatory governance -- are being hampered. Not only is there a disparity in the meaning and practice of integrated coastal zone management,

disputes between interested parties are being systematically avoided. Therefore, conflict is unaddressed, unresolved and escalating.

How Should Conflict Be Dealt With?

The most commonly referred to method of dispute resolution where natural resources are concerned, is the interest-based approach (Pinkerton 1996; Moore 1996; Susskind, Thomas-Larmer and MacKearnan 1999; Pirie 2000). Pinkerton (1996) for instance, maintains that sustainable fishery management in one region of British Columbia was achieved even though there were three major conflicts in the fishery, because participants engaged in five specific mechanisms for conflict resolution. Here she refers to one of those mechanisms:

Common goals shared by local parties are identified and incorporated into the agreement among them. Each party gets something important it wants, and all parties see these as related in some way to the optimal management of the watershed as a whole, as well as the reduction of disruption caused by conservation closures (Pinkerton 1996:60).

Pinkerton has established that the interest-based approach, “enlarging the range of alternatives so that the needs of all parties are addressed and met to the greatest extent possible” (Moore 1996:108) by reframing issues and positions (Ury 1993:78), brought on a successful agreement. Moore (1996:108) maintains that interest-based procedures work best when:

Parties have at least a minimal level of trust in each other; Parties have some mutually interdependent interests; Equal, but not necessarily similar, means of influence exist, or the parties with the superior power is willing to curtail the exercise of power and work toward cooperative solutions...

The interest-based approach has also been cited as being successful in environmental disputes when a mediator “ultimately sees the terms of the settlement as

the prerogative of the parties” (Moore 1996:75). Therefore Moore is implying that the practice is appropriate to engage in when participants are focused on finding a settlement, rather than focused on prevailing against opponents. A strategy that is often incorporated into the interest-based approach is the concept that Fisher and Ury (1991:81) refer to as ‘relying on objective criteria’ wherein parties:

Concentrate on the merits of the problem, not the mettle of the parties...be open to reason, but closed to threats... [because] it is far easier to deal with people when both of you are discussing objective standards for settling a problem instead of trying to force each other to back down.

Objective criteria must be “independent of each side’s will...and it must be legitimate and practical” (Fisher and Ury 1991:85). When parties are looking to reach an agreement, parties’ use of objective criteria ensures stability in agreements, lessens the amount of time that parties spend defending their positions and thus, parties use their time more efficiently (ibid:83). In this case, however, as we have seen unaddressed conflict has resulted in serious distrust and damage to the relationships among the parties. This, in turn, has resulted in distrust of ‘objective’ scientific criteria.

Although there are several indications that suggest that disputes have not been addressed in CHA2, participants offered details as to how they thought that conflict should be resolved. Sterling said that the Department of Fisheries and Oceans “basically [tries to] bring parties together, find common ground” and “explore a win-win on all sides”. Although Paula argued that it is not the role of the Department of Fisheries and Oceans to intervene and mediate conflicts, she commented that if people are willing to sit at a table and participate in conflict resolution, then headway can be made if common interests and goals are “teased out”. Diane from the Canadian Food Inspection agency

stated that “there is always a solution and the idea is to come up with options and then find the best possible solution given the circumstances”. The terminology (interests, common ground) is characteristic of an interest-based approach.

Government regulators also stated that they often tried to ‘rely on objective criteria’ when dealing with conflict. For instance, David of the Canadian Food Inspection Agency maintained that as a representative of the agency he must approach conflict situations by framing responses from a Canadian Food Inspection Agency standpoint rather than from a personal point of view. Diane expressed something similar in that she explained the importance of being sensitive and listening closely when attempting to resolve conflict, but also as a representative of the Canadian Food Inspection Agency she must “go back to what our mandate is”. While Simon cited avoidance as one way to approach conflict, he also noted that it is important to empathize and remain as impartial as possible. While government regulators did not make use of alternative dispute resolution, Diane, David and Simon seemed to understand some of the principles associated with the interest-based model, such as reliance on objective criteria.

The interest-based approach to dispute resolutions where natural resources are concerned has proven to be successful in identifying common, overlapping and mutual interests and needs between actors in an effort to resolve conflict and develop agreements. However, the interest-based practice does have its limitations. Dukes (1993:47) states that the objectives of the interest-based approach – “to find optimal accommodation of differing interests”— results in a division and limitation of issues that are appropriate for intervention by the government. Governments focus on conflicts

that exclusively concern them and are within their jurisdiction. As a result, other concerns such as those related to community identity and livelihoods-- which are not under government control-- are ignored. This criticism is supported by Bush and Folger (1994:68) who maintain that relational and identity issues are difficult to address using the interest-based format. Bush and Folger explain that this occurs because mediators influence conflicts by unintentionally becoming participants:

...mediators' interests, as shaped both by the problem-solver role and by their own values, become forces at play in mediated conflict (Bush and Folger 1994:71).

Mediator influence on the process has two consequences. First, there is a tendency to drop issues that cannot be concretely reframed to advance tangible solutions (i.e. identities, worldviews, values) (ibid:68). Secondly, when mediators drop issues, they inadvertently decide what issues are relevant enough to remain 'on the table'. As a result, mediators influence what parties will finally agree to (ibid:69) which has the potential to generate injustice and inequality. Furthermore, this affects relationships between participants who are often left "unsatisfied or satisfies one at the expense of the other" (ibid:73).

As was noted earlier in this chapter, there are deep identity and livelihood issues in this case that are rooted in power differentials. While the interest-based approach might be appropriate for some environmental disputes, for the situation examined in this case study, where serious problems associated with information and data exchange and value conflict have led to deep problems with trust and relationship, a different conflict resolution process is required in order to recognize, encourage and support an open discussion about values and objectives. Recall that Keen and Mahanty (as cited in

Charles et al 2010:32) promote a process whereby parties engage in an open discussion of the values and objectives as well as open sharing of relevant information. This approach to conflict resolution is referred to as the transformative practice. The theorists of the transformative approach maintain that once healthy sustainable relationships have been developed among parties, defined by trust, relatedness, understanding and recognition, other aspects of conflicts can be addressed (Dukes 1993; Bush and Folger 1994; Lederack 1995).

The clam harvesters spoke with resignation about the lack of mutual recognition and understanding, saying that the “only way to resolve conflict is to switch jobs. Let [government regulators] put a pair of boots on and clam for work”. The clam harvesters thought that if government regulators could see the world through their eyes, they “would see it different”. The comments might immediately imply resignation and frustration. However, when interpreted from a transformative perspective, the clam harvesters are actually suggesting that a mutual exchange of life stories and perspectives might enable all of the parties to understand, recognize and appreciate each other’s circumstances, thereby developing a new type of relationship where different types and levels of conflicts could be brought into the open and discussed.

Lederack (1995) maintains that in order to be able to develop appropriate models to deal with conflict, conflict must first be understood. Conflict “is connected to meaning, meaning to knowledge and knowledge is rooted in culture” (Lederack 1995:8). Respect and acceptance for others meaning, culture and knowledge is learned together through reflection on events. Through reflection, parties are enabled to “articulate their needs freely and explore their differences fairly” (Dukes 1993:48). It is at this point that

concerns that are difficult to define such as powerlessness, identity and quality of life issues can be raised and explored (Dukes 1993). When the needs and interests of parties are expressed and validated (Lederack 1995) all parties and participants become empowered. Empowerment is achieved when disputing parties experience “a strengthened awareness of their own self-worth and their own abilities to deal with whatever difficulties they face regardless of external constraint” (Bush and Folger 1994:84). Once parties have achieved some level of empowerment they also gain some recognition wherein “disputing parties experience an expanded willingness to acknowledge and be responsive to other parties’ situations and common qualities” (Bush and Folger 1994:85). Ultimately, parties are encouraged “to use the conflict to realize and actualize their inherent capacities both for strength of self and for relating to others” (Bush and Folger 1994:82). It is through these processes that trust, responsibility, obligation and loyalty (Dukes 1993) begin to emerge which are the fundamental elements required to secure sustainable relationships.

Once interpersonal issues have been dealt with, the transformative approach seeks social and institutional change. The transformative approach is “newly invigorated by the theories and practices of strong participatory democracy, communitarianism, feminism, civil rights, environmentalism, the peace movement and the larger field of conflict resolution” (Dukes 1993:48). Given the influence of these disciplines on the methodology, an objective of the approach is to draw attention to the fact that:

...underlying many disputes are struggles over power, status, and human needs such as identity, recognition and security. It also [seeks to recognize] that ordinary disputes are often the manifestation of these deeper societal divisions (Dukes 1993:49).

The practice seeks to develop a capacity for problem solving and conflict resolution by acknowledging that these power differentials exist within institutions and among interested parties. By including “unseen faces and unheard voices” in governance processes, power can be equalized and even transcended (ibid). Communities and individuals are capable of becoming engaged because they have created bonds that affirm their interdependence within a shared public domain. Consequently, dialogue relationships at every level are supported which strengthens public institutions and encourages active, lasting and meaningful participation while nurturing a governance process that is responsive rather than directive (ibid). Therefore, the transformative approach ensures that structural as well as data, relationship, and value conflicts can be attended to and resolved.

The premise of the transformative approach is that conflict is not seen a problem, but “as [an opportunity] for moral growth and transformation” (Bush and Folger 1994:81). The exclusion of the clam harvesters from engaging in governance processes resulted in missed opportunities to encourage collaborative relationship building, problem solving and conflict resolution. Furthermore, a failure to adhere to engagement principles such as transparency of data and ‘consultation’ throughout policy formation and implementation has resulted in lost opportunities to consider much less focus on integrated coastal zone management options. Although opportunities have been missed in CHA2, throughout the research for this project, not one participant suggested that the relationships between the parties had deteriorated to the point where integration, cooperation and conflict resolution processes were impossible. Therefore, there appears

to be some willingness and an opportunity for conflict to be addressed provided that effective engagement and conflict resolution processes can be created.

Conclusion

Throughout this chapter, data was analyzed through the lens of the transformative approach to conflict resolution. It was revealed that the power differentials between government regulators and the clam harvesters were not addressed. As a result, the clam harvesters were not engaged in governance processes such as ‘consultations’ or in agenda setting or in the development and implementation of policies. The result is that policies did not reflect the complexity and multiple criteria of the values and interests represented by government regulators and the clam harvesters. While the clam harvesters were concerned about the impact that new policies would have on their social and economic livelihoods connected to their very identities, government regulators were concerned merely with internal government concerns such as the implementation of new regulations. In addition, the clam harvester’s interests were dismissed as *beyond the mandate* of the government, ensuring continuance of interest conflicts. Those interest conflicts, as we have seen, are made more complex by the presence of a value conflict over the emergence of privatization of crown land beaches that have traditionally and historically been used collectively for clam harvesting. The clam harvesters consider the beaches to be a resource commons and seek to manage the resource collectively as a sustainable community based fishery. This is in contrast to the government officials, who now argue that coastal zones are crown owned land. Government officials are now asserting a government right to privatize that

land through the allocation of private corporate leases. The value conflict has been exacerbated by structural problems in government resulting in few effective attempts to consider multiple interests, much less to engage in conflict resolution processes to address them.

This lack of attention to the needs and interests of all parties has resulted in a significant lack of trust between the clam harvesters and the government regulators. Lack of trust associated with information and data has expanded to include other issues such that the clam harvesters now believe that the Department of Fisheries and Oceans is deliberately trying to ‘divide and conquer’ them. This has influenced the clam harvesters ‘agency’ and ‘regulator capacity’, has affected their willingness to engage in communication and has ultimately resulted in relationship conflict. Although the Canadian Government has an official mandate to mediate conflict, the conflict between the clam harvesters, private commercial concerns, and government regulators has been systematically avoided. This has caused both sides to express concern about the potential for violence. Conflicts have also escalated and expanded because they have not been brought to the forefront where they could have been adequately addressed. Integrated coastal zone management is a process whereby interested stakeholders debate and negotiate values and interests in an effort to reduce conflict and to sustainably manage oceans resources. However, conflicts in this case continue to hamper progress.

In the final chapter, I shall use a summary of my analysis in this chapter to make specific recommendations on how conflict resolution knowledge and principles, and particularly the transformative approach to conflict resolution can offer concrete,

achievable methods to address this conflict and to move forward toward collaborative integrated coastal zone management.

Chapter 8: Recommendations

In the previous chapter it was revealed integrated coastal zone management processes were lacking. Instead, conflict was silenced and avoided, resulting in the conflict becoming more and more heated—to the point, ultimately, of threats of physical violence. One can use the conflict resolution theories and concepts to trace some of the reasons: silencing of opportunities to explore interests and needs by managing agendas; lack of transparency and attention to the free flow of information resulting from distrust; struggles to maintain power and control; lack of attention to structural issues which prevented all the parties necessary for resolution being together at the table at the same time; conflict avoidance resulting in the escalation of conflicts associated with competing interests, competing values; lack of attention to values and relationship issues resulting in mistrust. Although failure to attend to such issues has caused the conflict to escalate creating a hostile environment, due attention to collaborative conflict resolution principles could remove some of the barriers that have prevented genuine cooperative integrated coastal zone management. There still remains a degree of optimism that alternative dispute resolution processes can help address and resolve the disputes while achieving better standards of conflict management and governance. This chapter will draw upon the lessons learned in the previous chapters to make recommendations on how to structure dispute resolution processes to address current problems.

It has become evident there are several events and issues that have contributed to the larger conflict situation between governing agencies and clam harvesters in Clam Harvesting Area Two, a fundamental one being the divergent approaches to integrated

coastal zone management. While the independent clam harvesters were able to clearly articulate their understandings of coastal zone management in a manner consistent with a definition of the term that is espoused by various academics (see Agrawal and Gibson 1999; Armitage 2005; Berkes et al 2001; Wiber et al 2004; Graham, Charles and Bull 2006), government officials seemed to have abandoned a search for collaborative solutions in favour of a single solution favouring commercial interests. As a result of a single solution orientation, they seemed to have difficulty envisioning processes or policies that would integrate the various interested parties and their concerns into the management processes. Consequently, the government lost moral legitimacy (Pinkerton and John 2008). Furthermore, the clam harvesters agency and regulatory capacity has been significantly impacted (F. and K.von Benda-Beckmann and Wiber 2006). The absence of integration in management planning resulted in additional, related, problems, for example, the silencing of concerns via control of meeting agendas. Information about new management procedures to be imposed was provided, leaving no room for discussion about alternative management strategies. All decisions predated the meetings. Gulliver talks about how agendas can ensure equality or can impose inequality. The strategy by which the agenda was created and the type of agenda that was imposed in this case, insured inequality (Gulliver as cited in Moore 1996) by leaving no room for community or harvesters' input. Problems arose because interests were shut out of the public dialogue rather than embraced by government regulators; stakeholders were silenced not engaged (Dukes 1993). Gensberg (2003:13) states that preventing stakeholder participation is the ultimate imposition of coercive power in a public

dispute. The use of coercive power by government regulators not only fails to address power imbalances, but it reinforces them.

Although differences in power relations are an inherent part of all conflicts as a result of economic, social and political position (Moore 1996), in CHA2 the disparity was exaggerated by differences in culture and world view and then compounded by the use of power to impose, regulate and silence (Bartos and Wehr 2002:31). Bartos and Wehr (2002:35) explain that in modern societies, a person(s) holding a position within the bureaucracy is believed to have legitimate power and the ability to exert it. This is particularly the case if the individual was chosen based on specific written rules and follows the direction of those rules and the system of government. We see this phenomenon at work in this case. The use of power in this case created division and distrust. In the clam harvesting industry, certain large scale commercial stakeholders have been allowed degrees of power through legislation, policies and the formation of management boards; others with long standing livelihood interests in the same resources have been silenced and sidelined. The objectives of integrated coastal zone management, as set out in government policy, include the incorporation of a plurality of standpoints, interests, property ideologies and legal institutions through the creation of a governance process created by engagement in consultation and participatory processes (Ali 2003; Jentoft 2005; FAO 2007; Kearney et al 2007; McFadden 2008; Charles et al 2010). Participatory governance can only be successful if participants are empowered by appropriate channels for engaged citizen participation resulting in regulators and government officials becoming sensitized to public needs and concerns. Dukes' (1993) emphasizes the importance of encouraging active, lasting and meaningful participation

in decisions that are being made. However, the approaches taken during the consultations, information sessions and decision making processes in CHA2 demonstrate that citizen engagement was a failure and that responsive governance as defined by Dukes (1993) does not exist. Instead, the procedures were authoritative, power based, top down, and ultimately destructive in nature. Because there was no adherence to principles of inclusion and participation articulated by Dukes, the needs and interests of those who are directly dependent on clamming resources for a way of life and for livelihood were sidelined and ignored. The clam harvesters were only engaged at the most marginal level (as information recipients) and furthermore, their participation in the governance process was not integrative or collaborative. Participation in this case was merely a “window dressing ritual” (Arnstein 1969).

The repercussions of lack of foresight in designing inclusive engagement processes negatively affect the ability of the government agencies to manage multiple interests and values, thus consolidating conflict around these two issues. Conflicts over interests and resources became increasingly heated and hostile, not only because of an incompatibility of interests, but also because of an actual interference in addressing the interests of all actors. The clam harvesters were told that it was *beyond the mandate and responsibility* of government to intervene in issues concerning economic and social livelihood and identity.

When conflict influence identity and livelihood issues, conflict avoidance will result in escalation. Furthermore, by framing government responsibilities in connection with CHA2 as merely scientific and technical, the government officials validated their

own area of expertise while dismissing or sidelining clambers' experiential knowledge and deflecting discussion of all underlying interests. Pinkerton (1996:58) maintains:

As other successful processes in Canada have shown, government cannot be both the sponsor and the convenor of a process, retaining all the power, or the process will be accurately perceived as just another way to impose government's agenda.

As Pinkerton had predicted, the outcome of the government sponsored process was unresponsive to the clam harvesters needs and concerns -- a fundamental indicator of poor governance (FAO 2007:9). This is again exemplified when surprisingly the government officials described themselves in partisan with commercial interests, rather than in neutral terms. The partisan interests of government regulators were illustrated in their failure to engage with the clam harvesters in negotiation and debate over values that should guide decisions being made over the management of clams and this aroused a conflict over values. Forester (1999:465) discusses value conflicts in the following terms:

In the public realm, value differences often seem to be so personal and passionately espoused, that they seem irreconcilable...

He goes on to suggest that these particular conflicts require special care and attention because:

...many understand that changing people's values involves not just changing their preferences but changing who they are, changing their identities [and therefore] public scepticism about resolving value conflicts seems reasonable enough (Forester 1999:465).

The value conflict in this case emerged because one set of values (Moore 1996), in this case privatization, was being applied generally, even though privatization eroded the rights of those holding different values such as the importance of common property interests. Although protests against privatization were made, the rules to access and to

withdraw from resource stocks changed (Schlager and Ostrom 1992). Schlager and Ostrom (1992:250) maintain that with common pool resources such as clams, the most pertinent operational level (day to day) property rights are the ability to ‘access’ and ‘withdraw’. Traditionally, this has been influenced by collective choice action (Schlager and Ostrom 1992: 250). However, the ‘power over’ approach by government, wherein the clam harvesters are coerced into accepting privatization as a form of management is not a ‘collective choice’ and it is contrary to the ‘power with’ approach that integrated coastal zone management seeks to accomplish. Alternatively, a ‘power with’ approach would be collaboratively established, coercive and noncoercive (Follet as cited in Deutsch and Coleman 2000:111). Dukes’ (1993:48) and Lederack (1995:21) discuss the importance of acknowledging and responding to power imbalances through empowerment if inequalities are going to be avoided. Bush and Folger (1994:99) expand on this theme by asserting:

Political theorists observe that in order for democratic institutions to be healthy, individual citizens must develop the power to define and address their own needs (as cited by Lappe and DuBois 1994)

This, Bush and Folger (1994:84) suggest, is achieved by developing “a capacity for strength of self and capacity for relating to others” through empowerment and recognition. In this case, lack of consensus and collaborative management prevailed because disparities of power that exist in different positions in society were not acknowledged or addressed and therefore empowerment and recognition were not achieved. Dukes’ (1993) argues that when processes result in failures of these kinds, disputants lose the ability to solve problems and to resolve conflict. The end result, he argues, is that some stakeholders – in this case the clam harvesters — are left feeling

powerless and alienated from the institution and practices of governance. The final outcomes are limited to resignation or conflict escalation with resistance; we have seen both outcomes occurring in this case.

Although the Canadian government has an official mandate to intervene in conflicts between resource users, (Department of Fisheries and Oceans 2005), analysis of this case study has demonstrated that avoidance was more common and that efforts to consult were both limited and ineffectual. The conflict was ignored in various ways: by characterizing it as an unrealistic conflict⁴⁹ reflective of merely personality differences thus not resolvable; by diplomatically sidestepping issues; or by consciously withdrawing from or refusing to participate in conflict situations. Because disputes went unaddressed and unresolved the needs and concerns of the clam harvesters were not encouraged, validated or understood. Lederack discusses how tactics of avoidance stifled efforts to have free and open discussions resulting in misunderstandings connected to meaning, knowledge and culture. Disputants did not have the opportunity to learn together through reflections of the events, nor were they able to develop appropriate models to deal with overt conflict. Ultimately because disputes were not adequately dealt with, problems escalated and expanded into other areas resulting in relationship and data conflicts as those who have studied escalating conflict would predict (Sung Hee and Smith 1993; Bartos and Wehr 2002; Maiese 2003).

⁴⁹ Recall that Coser (1969:8) defines conflict as “a struggle over values and claims to scarce status, power and resources in which the aims of the opponent are to neutralize, injure or eliminate their rivals”.

The relationship conflict that developed between clam harvesters and governing regulators was a result of a lack of trust generated by lack of transparency and slow speed of information exchange. Moore (1996), Pirie (2000) and Deutsch and Coleman (2000) discuss the importance of addressing relationship issues. Failures to do so result in distrust:

If [individuals] don't trust each other, conflict often becomes destructive, and resolution is more difficult. Bitter conflict itself generates animosity and pain that is not easily forgotten; moreover, the parties no longer believe what they other says, nor believe that the other will follow through on commitments and proposed actions (Lewicki and Wienthoff 2000:86).

The issue of trust re-emerges and presents itself in the format of a data conflict. Due to a lack of transparency, the reluctance to share information and the release of contradictory information, there is a lack of confidence developed, both in the data being collected and in the legitimacy of the scientific process, which was said to be the basis for management decisions.

The lack of trust resulting from data issues expanded into other areas and ultimately in this case, distrust left the independent clam harvesters feeling as though there was a deliberate attempt to 'divide and separate them'. The conflicts between the independent clam harvesters and the owner of the depuration company, and those between the independent clam harvesters and closed area harvesters are the consequence not only of competition over resources but also a lack of opportunities to discuss in integrative forums that would have allowed sharing of perspectives across conflict groups. As Maiese (2003) states, isolation consolidates group conflict boundaries resulting in consolidation of perceptions of incompatibility and difference. When

conflicts escalate, group boundaries solidify, such that disputes originally resolvable can escalate to the extent of threatening behaviour, as we have seen in this case.

It is obvious that there are a number of components that contributed to the larger conflict between the clam harvesters and governing authorities of CHA2. Governance processes such as consultations, participatory decision making and negotiations of public policies-- the very foundation of integrated coastal zone management -- have been neglected, thwarting efforts to collaborate and incorporate the interests, values and objectives of actors other than the governing agencies of CHA2. Consequently, in an approach consistent with conflict escalation theory (Sung Hee and Smith 1993; Bartos and Wehr 2002; Maiese 2003), the number of disputes proliferated, issues expanded and the conflict became more heated and intense.

Although conflict has proven to be a significant barrier to the integrated coastal zone management of the clam resource, there are processes of conflict resolution that parties can engage in to create a forum where trust, creativity, interests, curiosity, inquiry and open-minded problem solving can take place (Johnson, Johnson and Tjosvold 2000:73). When opportunities arise to pursue conflict transformatively, they must be recognized and acted on (Bush and Folger 1994:113). In this case study, throughout the research process not one participant indicated that the conflict had degenerated so far that they were unwilling to engage in conflict resolution processes. This openness and obligation to maintain communication is indicated by the continued meetings between clam harvesters and government regulators. In a manner reflective of the transformative approach, I believe there exists an opportunity for alternative dispute resolution to address the many conflicts and problems with governance processes that

continue to exist. The transformative approach is the larger methodological framework that can be used to address and resolve conflict.

Recommendations

In this section I will make recommendations for resolving the existing conflicts in CHA2. Then a larger systematic proposal will be offered so that when disputes arise in the future, they can be addressed and resolved in a way that is inclusive of interests and values of all industry actors.

The first step, as Pirie (2000:49) points out, is ensuring that participants, whether they are government representatives, harvesters, commercial interests or community members, should be supported and encouraged to engage in consensual dispute resolution processes –negotiation, mediation, conciliation-- should they believe that they are in conflict with one another.

The Use of A Third Party

In order for disputants to begin engaging in alternative dispute resolution processes, coordination and cooperative interaction between them is required. In this case study, a lack of trust has been created. This has had a negative effect on the relationship between the clam harvesters and government regulators in CHA2 such that parties have engaged in destructive, and even threatening behaviour. Moore (1996) states that when there is a heightened level of distrust and tension, parties may be unable to achieve the organization and collaboration necessary to move forward. Moore (1996) argues that in these types of situations, a professional and certified third party, which has been mutually selected and agreed upon by all stakeholders, should be invited to

facilitate or mediate the process. Professionals have a number of skills that they can draw from and apply (Pirie 2000:158). Michelle LeBaron (2004:17) maintains that an effective leader is culturally sensitive and has the ability to tap into strengths of each actor which allows the mediator or negotiator to address the interests of all parties and understand the conflict. A productive and creative third party can “set a positive, appropriate tone, monitor dynamics of process for constructive engagement and adjust to changing situations” (LeBaron 2004:17). Ultimately, by welcoming competing information and options which generate new forms of knowledge (Keen, Brown and Dyball 2005:15) a third party neutral has the ability to facilitate the forms of intervention and alternative dispute resolution processes that respect and incorporate the cultural values, needs and understandings of parties (ibid:18). The integration of actors’ values and interests into dispute resolution processes is particularly important in this case study because the conflict between the clam harvesters and government regulators is intimately tied to identity, livelihoods and worldviews. Thus, I suggest a third party could facilitate CHA2 industry meetings regularly in order to ensure that the values and interests of all parties are addressed effectively.

While the interest-based model advocates for third party neutrality, Elliott (1999:218) argues that neutrality is not only “difficult to achieve, but impossible to verify”. Therefore, the transformative approach suggests that a mediator or negotiator should take on a role of “co-partiality or co-advocacy” (Dukes 1993:51) by promoting the legitimacy of a process by ensuring that certain steps are integrated:

... admit the interests of stakeholders not at the table, including the general public and groups or individuals without power (ibid); ensure representation and effective participation of key stakeholders; refrain from advocating for any

particular perspective on substantive issues; clarify how decisions will be made and by whom within the process; [collaboratively] structure and implement a process that is accountable and fair (Elliott 1999:219).

Ensuring the legitimacy of a process is important in cases such as the one in CHA2. Particularly where conflict emerged because key parties such as the clam harvesters, the municipality of Digby and the Scallop industry, were left out of governance processes and processes involved in developing policies that affect management of resources on which they depend.

A Conflict Assessment

A mandatory preliminary step for all that the third party neutrals is assessment of conflict type and severity in order to match the conflict type to a resolution process (Shmueli 2003; McKearnan, Susskind and Thomas-Larmer 1999; McKearnan 1997; Moore 1996). Similar to the data collection procedures used for this case study, an assessment entails interviews and/or focus group sessions (McKearnan 1997). The initial list of people to interview is typically assembled by asking disputants for the names and telephone number of all the parties that are involved⁵⁰; typically the list expands throughout the process (McKearnan 1997). Once information has been collected, a case study can be mapped out and a report summarizing the findings of the interviews can be developed. The major objectives include the opportunity for the third party and disputing parties to gain a deeper understanding of the dynamics involved in the conflict, a preliminary understanding of relationships and the parties' interests

⁵⁰ This is also referred to as 'snowballing' (Trochim 2001)

(Shmueli 2003; McKearnan 1997; Moore 1996). The assessment also serves as an evaluative tool to determine the type of alternative dispute resolution processes that should be undertaken (McKearnan 1997).

Setting the Agenda

An agenda serves as a map that represents what participants collectively agree they want to accomplish during a meeting (Straus 1999:295) and perhaps over an extended period of time. An agenda establishes the level of commitment required of disputants, issues that will be debated and negotiated, potential strategies that could be used to address the conflict and the length of time the process will take (Elliot 1999:220). Susskind (1999:42) discusses the importance of including disputants in the agenda setting process:

While it is possible to add issues along the way (in response to new developments in the dialogue) and with the agreement of the full group, it is important to get concurrence on a sufficiently rich but manageable agenda at the outset.

Flynn and Gunton (1996:106) argue that an agreement will be more likely with a clearly set agenda that has been developed collectively by all participants. Moore, Longo and Palmer (1999:569) maintain that it is because participants are assured of the following: that they will have an opportunity to contribute their ideas; their ideas will be recorded and respected and should an agreement be made, their ideas will be translated into concrete action. Therefore, participation in agenda setting encourages parties to articulate their interests so that processes reflect their knowledge and culture (Lederack 1995). A failure to integrate and collaborate with disputants throughout the agenda setting process may result in an agenda that is too narrow which deters disputants from

wanting to participate (ibid) or the inability to have the needs and interests of participants dealt with effectively (Elliott 1999:220). Alternatively, if an agenda is too broad, participants may become disheartened and overwhelmed by the process causing them to drop out (Susskind 1999:42).

Ultimately an agenda should not only help parties identify their issues and concerns and then negotiate settlement, but it should also primarily seek to create opportunities for open discussion, visioning (Moore, Longo, Long and Palmer 1991; Moore 1996) and trust building exercises, creating a forum for constructive controversy to take place. Moore (1996) identifies that at least eight different types of agenda's that exist⁵¹, all of which seek to facilitate these objectives in varying degrees. We saw in Chapter 7 that the 'simple agenda' was the only style of agenda used. In this case the 'simple agenda' was both insufficient and inappropriate because it ignored the essential problems of multiple criteria and encouraged tactics of delay. This allowed government regulators to control the process and gain leverage on items they wanted to address and therefore, the discussion of issues that other parties thought were important were subverted. Parties that are engaging in the agenda setting processes should be informed of the multiple agenda types that exist, what they seek to accomplish, their benefits and their barriers.

⁵¹ Moore, Christopher (1996) Chapter nine: Defining Issues and Setting an Agenda

Structural Conflict

Recall that structural conflicts arise as a result of institutional structures, more specifically divided, overlapping or unclear jurisdictions. Moore (2003:413) maintains that these types of conflict cannot be resolved without “changing the rules under which people associate or modifying structural opportunities for them to meet, socialize, and have positive interactions...”. Furthermore, he cautions that the process to address structural conflict should not seek to directly change values, but should focus on changing the structural relationships in which parties interact.

As we saw in Chapter 7, structural conflict in this case was caused by a lack of clarity surrounding jurisdiction, power and responsibility between governments and within government sectors. The result was conflict avoidance, the failure of any government agency to take responsibility for engagement and resolution. In the absence of attention to structural change to resolve institutional jurisdiction issues – who was responsible for what – and to ensure that all necessary decision makers are at the table, structural divisions, as discussed in Chapter 7 will ensure that similar conflicts will continue to surface. Recommendations to address this issue are set out below.

Data Conflict

As we saw in Chapter 7 and as Moore (as cited in Pirie 2000) explains data conflicts are caused by lack of data or inaccurate information and/or different views on what is relevant. Ehrmann and Stinson (1999:383) explain:

...in complex public disputes, participants often say they want to rely on ‘good science’ [however] there are many factors that influence their determination of what good science is and what is not.

Two of the factors they mention that affect the determination of ‘good science’ are the sustainability of the relationship between disputants and the level of trust they have amongst them (ibid:384). Where there is little trust or respect, criticism of each others’ interpretations of scientific findings is more likely (ibid). It became evident in Chapter 7, that a failure to share information and lack of transparency generated distrust that inflamed all of the other types of conflicts between the clam harvesters and government regulators.

A solution to data conflict is to engage in a “carefully constructed process of joint fact finding” (Ehrmann and Stinson 1999:383). Joint fact finding is a collaborative process whereby participants collectively engage in research and jointly develop technical data (ibid:379). Transformative learning projects are an example of a joint fact finding approach. They involve collectively identifying a problem(s) and developing a project dedicated to the problem and then researching solutions. As a result, formal linkages of responsibility are created which promote resource distribution and communication. Furthermore, research is produced which is viewed as valid by both the government bureaucrats and fishers (Wiber et al 2004:461) because participants listen to each other’s knowledge and positions and then generate group choices after due consideration (Fung and Wright 2001:17). Not only does it connect parties to each other, but it uses the institution to support and guide decentralized problem solving efforts (ibid). Fact finding also establishes new channels of participation for those most directly affected by management policies and practices (Fung and Wright 2001:17), whether they are governing agencies or clam harvesters.

When opportunities present themselves for collaboration and cooperation they should not go unrecognized, overlooked or unsupported as they did in the examples provided in Chapter 7 in the data conflict discussion. Wiber et al (2004:461) argues that such data conflicts could have been viewed as an opportunity to fully engage the clam harvesters and governing agencies in research that produces results that are viewed as practical, applicable and valid by all parties to the management process.

In this case, as we saw in Chapter 7, information/ data conflicts were left unaddressed, causing the conflict to escalate. The conflict resolution literature suggests alternatives. Knowledge building projects provide an arena for disputants to “reach an agreement on what data is important; agree on a process to collect data and develop a common criterion to assess data” (Moore as cited in Pirie 2000:65). If joint fact finding is deemed inappropriate for a case study or the process fails to achieve the above stated objectives there are alternative approaches. Moore (2003:65) suggests that throughout a conflict resolution process, parties can include a third-party expert to break a deadlock over data, present data in a different manner or help parties consider alternative options for resolving data disputes. Ultimately, data conflicts are easily preventable if everyone ensures equal sharing of information, capacity, and reaches agreement on fair processes to resolve disputes about information.

Interest and Value Conflicts

Susskind (1999:6) states, as explained in chapter 7, that interests are the “underlying reasons, needs or values that explain why [individuals] take the positions they do”. He explains that interests are what people seek to achieve which is different

from demands and positions that are what people say they must have (ibid). Recall that Ury, Fisher and Patton (1991:48) define interests as the most basic human needs such as security, economic wellbeing, a sense of belonging, recognition, and control over one's life. If these interests are interfered with by others, conflict ensues (Love 2006: 228). It was revealed in Chapter 7 that an interest conflict emerged not only because of an incompatibility of interests, but also because of an actual interference in addressing the identity and economic security interests of all actors. When the clam harvesters were told that their interests and concerns were *beyond the mandate and responsibility of government*, their identity and livelihoods were directly influenced. The clam harvesters explicitly link basic survival to their identity which "involves the interpretive dynamics of culture, history, values and beliefs...dynamics that are fundamentally psychological and social" (Elliott 1999:215). In this case, an approach to conflict resolution is required that will not only consider interests, but also identity.

As pointed out in Elliott's quotation, identities are also connected to values. Recall that values have been developed through a system of beliefs that are based on custom and socialization and are therefore inherently personal. For these reasons most individuals are not willing to change their values (Forester 1999:465) or an arrangement whereby the principles that make up their values are guiding decision making processes. As we saw in Chapter 7, the value conflict which has arisen between governing agencies and clam harvesters in CHA2 is over the leasing of Crown beaches to a private company. More specifically, which values should guide regulators in the decision making process. The value conflict was enhanced by structural problems of process in that few effective attempts were made to implement conflict processes to address such

situations (Wiber and Bull 2009a) and the governance was non participatory and inequitable (FAO 2007).

Moore (as cited in Pirie 2000:66) suggests that possible methods for resolving interest conflicts include “focusing on the interests that need to be met; developing creative solutions that meet the needs of all parties; searching for ways to expand options to satisfy more interests; assessing the legitimacy of the interests; and considering whether the interests can be changed”. Moore’s solutions, however, are very settlement focused. Theorists of the transformative perspective argue that when the focus is on finding agreement and not on the process, substantive issues such as identity and understanding of others' values and beliefs are not adequately addressed (Lederack 1995). As a result, the appropriate models will not be developed to deal with the conflict (ibid) and consequently, any agreements that might be made will not be sustainable (Trace 1995).

To ensure that substantive issues are attended to, Lederack (1995) encourages disputants to engage in methods of conflict resolution whereby participants learn together through the reflection of events so that each individual has the opportunity to articulate their interests and share their knowledge and values. A useful skill to accomplish this from conflict resolution literature is through storytelling. Love (2006:232) explains that in storytelling, each disputant is given an uninterrupted platform for speech; it provides parties with a forum where they can share their stories (often wrongs that parties have experienced) with each other which is critical to allowing them to look beyond their negative experience. Forester (1999:475) expands on Love’s point in stating:

... [storytelling] makes it possible for parties to step back from adversarial conflict to listen to one another's personal and specific stories, and let the richness and the detail of those stories suggest new concerns, reveal additional interests and disclose underlying values.

The process expands the 'reality' of each individual (ibid) which informs others about how conflict is connected to meaning and knowledge which are rooted in culture (Lederack 1995:8). Therefore, storytelling stimulates respect, builds trust and heightens the level of understanding for others beliefs, values and needs, through the power of the other's narrative (Love 2006:232) which is a validating and empowering experience. Storytelling is not only appropriate to address the interest conflicts between clam harvesters and government regulators, but it can also effectively deal with value conflicts (Forester 1999).

Relationship Conflict

As we saw in Chapter 7, Lewicki and Wiethoff (2000:83) maintain that trust is the 'glue' that holds a relationship together. Moore (2003:193) explains that trust in relationships is either developed or destroyed over a period of time. Throughout that period of time, individuals will undergo a series of promises and relevant actions that may or may not reinforce the belief that commitments will be played out. If parties engage in actions such as stereotyping, strong emotions and destructive behaviours (Elliott 1999:214) or there are legitimacy problems (Moore 1996:166) they are more likely to begin distrusting each other. Whether these actions are unintentional or a strategic choice, Elliott (1999:214) argues that "they distort the ability of stakeholders to understand each other and to act with a clear understanding of the values, interests, or perceptions held by other disputants." Elliott is making the point that a lack of trust

distorts the ability of disputants to communicate. Susskind (as cited in Moore 2003:169) describes communication between disputants as:

...typically a competitive process...communication is unreliable and impoverished. The available communication channels and opportunities are not utilized or they are used in an attempt to mislead or intimidate the other. Little confidence is placed in information that is obtained directly from the other...

Therefore, as relationships deteriorate because of a lack of trust, productive communication and negotiations fails and conflict ensues (Moore 2003:191).

Chapter 7 revealed that the clam harvesters developed a lack of trust for Environment Canada and for their role in the classification of beaches because of Environment Canada's reluctance to release data. Additionally, the clam harvesters developed a distrust for other governing agencies, particularly for the Department of Fisheries and Oceans whom the clam harvesters believed were making a concerted effort to 'divide and conquer' them. More relationship conflicts emerged between the independent clam harvesters and the owner of the depuration plant and independent or open area clam harvesters and closed area harvesters. The sources of these disputes have not been addressed and further, they have been dismissed by government regulators who have labelled them as problems of "personality".

Moore (2003:65) suggests that possible interventions for relationship conflicts might include controlling expressions of emotions through procedures and ground rules; promoting the expression of emotions by legitimizing feelings and providing a process; clarifying perceptions and building positive perceptions; improving the quality and quantity of communication; blocking negative repetitive behaviour and developing solutions that address both past and future behaviour.

Ghostkeeper (in Bell and Kahane 2004:161) states that there is an increased awareness in the significance of communicating across cultures, respecting difference and being sensitive to learned behaviours. However, more focus needs to be placed on becoming attentive and respectful towards different knowledge systems, concepts and assumptions of 'fact' that inform viewpoints and communication. Too often Ghostkeeper argues, the focus is on embracing appropriate patterns of behaviour rather than recognizing the knowledge, wisdom and value that form communications (ibid:161). Storytelling and engaging in knowledge building projects are two other methods in which wisdom, knowledge and values can be shared.

Following Moore's suggestions and Ghostkeeper's argument, Johnson, Johnson and Tjosvold, Deutsch and Coleman (2000:75) maintain that negotiations and disputes have the potential to create positive relationships amongst participants if they take a constructive course. The method, in which constructive controversy presents conflict, is viewed as an opportunity rather than as a detriment. Einstein once stated that "you cannot solve a problem on the same level in which it was created". What he is suggesting is that a shift is required in order for issues to be addressed. It was suggested earlier that the reason conflict continues to persist is because of the distributive and destructive actions between the clam harvesters and governing agencies and because conflict is being systematically avoided. However, I believe another issue that is preventing disputes from being addressed and resolved is the way that participants perceive conflict; conflict is being understood in negative terms, as disruptive with potential to destroy social stability (Coser 1969:24). It is important to expose participants to an alternative view of constructive controversy, as the constructivist

theory suggests that conflict is an inevitable part of change. It is not a sign that people or a system has failed, but rather open discussion of conflict is an indicator of a healthy society (Coser 1969; Keen, Brown and Dyball 2005). Furthermore, conflict can be understood as shared, not the responsibility of one person or group. Coser (as cited in Pirie 2000:40) adds that:

...conflict within a group frequently helps to revitalize existent norms; or it contributes to the emergence of new norms. In this sense, social conflict is a mechanism for adjustment of norms adequate to new conditions...internal conflict can also serve as a means for ascertaining the relative strength of antagonistic interests within the structure, and in this way constitute a mechanism for the maintenance or continual readjustment of the balance of power. Since the outbreak of conflict indicates a rejection of a previous accommodation between parties, once the respective power of the contenders has been ascertained through conflict, a new equilibrium can be established and the relationship can proceed on this new basis.

Conflict is part of a continual process producing change through discussion and negotiations (Coser 1969; Keen, Brown and Dyball 2005). Ultimately, thinking about conflict in positive terms not only significantly increases the quality of decision making and problem solving, but it also improves productivity and achievement, positive interpersonal relationships and the psychological health of those who engage in it (Johnson, Johnson and Tjosvold 2000:72). As alternative dispute resolution processes encourage constructive controversy and approach conflict as an opportunity, I believe it can help to advance the stated objectives of the transformative approach to conflict. The transformative approach to conflict can enable the potential for success of integrated coastal zone management, including: addressing and reducing conflict (Charles et al 2010); creating meaningful processes of engagement among and between different

resource users (Kearney et al 2007); and managing for multiple values and interests (Kearney et al 2007).

Transformative Approach to Conflict

While many conflict resolution models have value, I suggest that because of the types of disputes that have surfaced between the clam harvesters and government regulators – competing interests, competing values, data conflict and relationship conflict—as well as structural conflict, the level of conflict is now demonstrating characteristics associated with escalation and distrust. Consequently, a transformative approach is needed.

The main objectives of the transformation practice are to first transform relationships so individuals and parties become more responsive to others through trust, responsibility, obligation, loyalty, respect, understanding of others' beliefs values and needs, recognition and empowerment (Dukes 1993; Bush and Folger 1994). The goal of the transformative approach goes beyond resolving conflicts at the interpersonal level. The practice also seeks to address conflicts relating to community identity and quality of life issues such as the cultural, social and economic livelihoods; problems that derive from the disintegration of community and alienation from institutions and practices of governance (Dukes 1993). As a result, Dukes argues that the transformative approach is also a “vehicle for changing governing practices and institutional culture of agencies, public officials, citizenry and communities” (Dukes 1993:47). Lederack (1995) maintains that only when parties have learned together and had the opportunity to

articulate and validate their knowledge, that negotiation between disputants becomes possible.

The transformative approach is the larger methodological framework that can be used to address and resolve conflict. The exercises previously mentioned such as joint fact finding through transformative learning projects, storytelling and constructive controversy have the potential to create an atmosphere, where the characteristics of a sustainable relationship (Dukes 1993; Bush and Folger 1994, Lederack 1995) can be fostered, explored, tested and established.

Some or all of the alternative dispute resolution approaches and exercises that have been outlined might be useful in addressing and resolving conflict between the clam harvesters and government regulators in CHA2. However, these methods directly reflect the circumstances under which conflict was created, the types of disputes that emerged and the specific parties involved in this case study. Given the way that conflict has been dealt with thus far in the clam harvesting industry, I do not believe that if additional disputes arise between these parties or other industry actors that they will be adequately addressed or resolved without an overarching alternative dispute resolution framework that all parties can refer to. Therefore, below I outline the main components of a *Best Practices Protocol* that could be developed for alternative dispute resolution in the clam industry to promote a healthy and productive fishery.

Best Practices Protocol—An Overarching Alternative Dispute Resolution Framework

- The *Best Practices Protocol* for Alternative Dispute Resolution should be in the form of a handbook, so that it can be easily distributed to all actors in the clam harvesting industry. The protocol must include the following information:
 - Engagement standards that government and other participants are required to follow in designing process and policies and at the various stages of conflict and alternative dispute resolution processes. These will identify the crucial components of alternative dispute resolution practices in accordance with the interests and objectives of industry participants
- These principles must be developed collectively so that each agency, association, group or community has the opportunity to outline their preferred methods (Moore 1996)

Preliminary Matters Include:

- Prior to engaging parties in a conflict resolution process, implementing a third party facilitated trust and relationship restoring process in order to help to restore a degree of trust among interested parties. Consider, as part of this process, drawing upon narrative methods to encourage the sharing of life stories and perspectives in order to humanize the conflict.

- Setting out clearly the lines of jurisdiction and responsibility for each government and each government sector with respect to allocation of coastal resources (federal and provincial, as well as sectors within government, for example, environment, fisheries, health and labour)
- Specifying which government representatives have authority to bind applicable government agencies when conflict over coastal resources arise and ensuring that those parties are ‘at the table’ in all future discussions
- Creating a new inter-government, structure across government sectors to include all key players from governments and government sectors with a policy and or regulatory interest in coastal resources or in factors that affect coastal resources (such as environment and health); clarifying jurisdiction, authority and responsibility within the new structural unit;
- Ensuring that the new government unit meets with and engages collaboratively and regularly with representatives from coastal and First Nations communities, clam harvesters, and commercial interests with respect to the creation of policies surrounding the collection and dissemination of scientific information, and policies and practices associated with allocation of coastal resources. Potential options discussed earlier in this chapter include processes to ensure the generation of mutual, joint knowledge;
- Designing, collaboratively with clam harvesters, coastal communities, government officials, conflict resolution experts, and other interested parties, citizen engagement and conflict resolution policies and practices;

- Designing collaboratively, with all interested parties, a citizen engagement and conflict resolution manual to guide future relationships among the parties
- Designing collaboratively with the parties policies and practices to ensure transparency and full and complete information exchange between the new inter-government structural unit and all non-governmental interested parties (government, experts, clam harvesters, commercial interests, coastal and First Nations communities).
- Holding regular meetings and gatherings to consult, engage and exchange mutual information and knowledge
- As early as possible in the process a clear expression of the objectives of each of the actors, as articulated by each party – should be determined and shared with all other actors
- Ensuring that local methods of conflict resolution, customs and practices are integrated into engagement and conflict resolution policies and practices
 - Ex. Mi'kmaq Ecological Knowledge Study Protocol

Guiding Principles

- The engagement and conflict resolution standards should be flexible as alternative dispute resolution is multidisciplinary in nature (Pirie 2000) and supports hybrid processes of the practice (Pirie 2000)
- The terms and terminologies of alternative dispute resolution should be outlined so that industry participants can refer to them and learn about the various options that are available to them (Pirie 2000)

- The standards should be subject to modification or amendment so that they can evolve as the interested parties discover and suggest improvements; changes should reflect genuine engagement and information agreement on the part of all interested parties
- Consultants, facilitators, and mediators should receive training in the use of narrative and transformative as well as interest-based approaches to resolving conflict, in power balancing, as well as in the principles of effective public and stakeholder engagement. A list of designated contact persons such as consultants, facilitators and mediators, that have been collectively selected by interested parties, specifying relevant educational criteria and procedural approach, should be maintained, updated and made publicly available.

Conclusions

In this thesis I have examined one conflict in Clam Harvesting Area Two to explore the role that Alternative Dispute Resolution might play in better achieving integrated coastal zone management. I have concluded with a list of recommendations that would provide government and all stakeholders with a tool to resolve conflicts unique to this case study in a transformative way.

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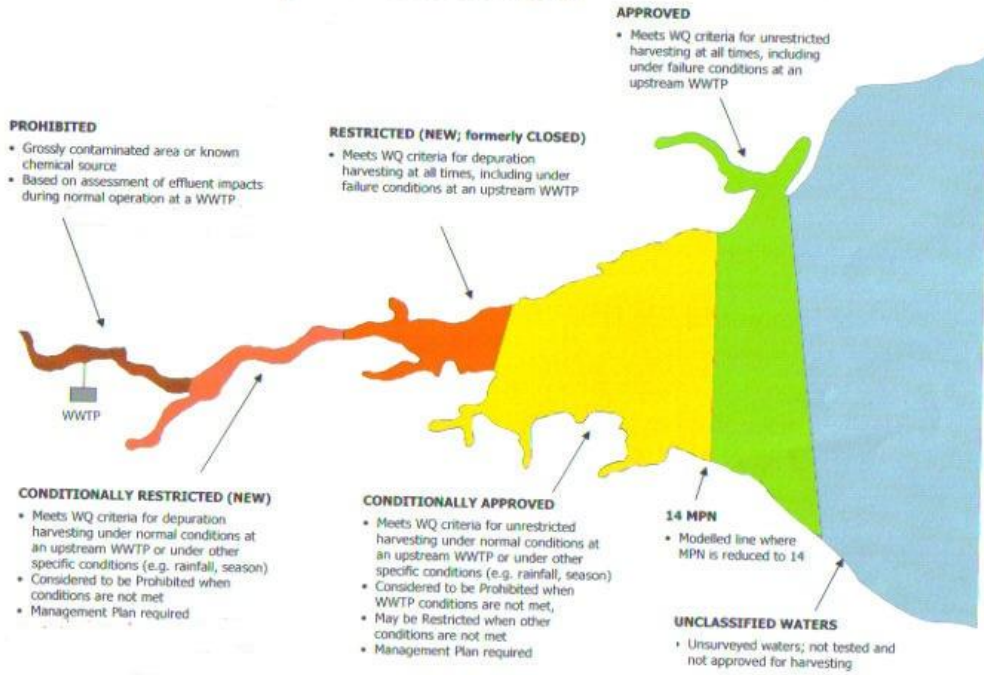
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Appendix 1

Proposed Growing Area Classification



Appendix 2

Interview Schedule for Clam Harvesters

i) **Opening**

1. Hi my name is Courtenay E. Parlee and I am a student at the University of New Brunswick and a student with the Coastal CURA, a community-university-research alliance working to further Integrated Management in the Maritime region. Just so you know this project is on file with the UNBF research ethics board as file REB#2009-135.
2. Purpose: My research focuses on methods of conflict resolution in integrated management. I would like to develop a case study of a recent conflict in the coastal management and to understand the various positions of all stakeholders and regulators. Because you are members of the association in Clam Harvesting Area 2, I would like to ask you questions and have a discussion about the consultations with government regulators in Clam Harvesting Area 2 and talk about conflict resolution processes in connection with the renewal of the 10 year aquaculture leases in St. Mary's Bay and the new CSSP classifications. I invite you at any point to interrupt me with anything you think is important.
3. Motivation: This focus group can be an opportunity to talk about concerns, if any, with the processes that have taken place and can contribute to the documentation and data of those concerns and problems. I hope to use this information to study, understand the situation and write a thesis, but I am not here to solve anything. What you have to say is valuable and there are no right or wrong answers or comments to the questions I will be asking.
4. Informed consent: Do you have any objections to the audio recording of this session? Are you aware that there is a tape recorder here? Do you mind if I also take notes?
5. I will treat any information you provide confidentially in that I will not identify who said what in any communications or reports. Furthermore, I will ensure that all identifying information is removed from any of my written reports such that no one, who did not participate in the meeting, will be able to identify who said what. Only my academic supervisors at UNB will have access to tape recordings of the focus group sessions or notes.
6. At the bottom on the right, the last sentence there on your letter of informed consent: what I cannot guarantee is that other participants will not reveal who said what at this meeting. However, your information and identities can be protected if as participants of this focus group everyone agrees not to indicate to anyone outside of this meeting which person said what during the meeting, can we all agree on this? I am going to ask everyone in the room if this is OK to ensure that everyone is in agreement. Do you agree to this?

7. Once done reading: (Verbal consent rather than written) Do I have your consent to participate in this focus group and record your views?
8. Timeline: This focus group session should take approximately two hours and let me know when you think we should break. If we do not get everything said in today's session, I hope you would consider participating in another one. Do you have any questions or comments before we start?

Transition: I really appreciate you coming out for this focus group session and I would like to start my learning a bit about you. I would like to hear from you what you consider to be important. The purpose of the questions are not to limit your answers or information, they are to guide us in the topic to be discussed.

ii) Body

a) Topic: insight into their backgrounds

Objective: to get them talking, loosen up a little bit, introduction to the topic of clam harvesting

1. Can each of you tell me a bit of background on yourselves? How you got into clam harvesting or fishing? The importance of it to you and your family?

Transition: I am interested in the formal processes that facilitate a change in management for a particular resource. Can you describe the processes that were followed in the introduction of the St. Mary's Bay aquaculture leases? Can you describe the processes that were followed in the introduction of the new CSSP classification? Aside from these formal processes, what other processes were you involved in with respect to these two changes? Processes can be anything from the consultations you have participated in or obtaining data and information in a timely manner, to whether or not your concerns have been considered and addressed.

Topic: Design, implementation and participation in consultations

1. Who makes decisions about which stakeholders should be consulted?
2. How were you informed and involved with the consultations?
3. How were you involved in setting the agenda for the meeting? Where you involved in deciding on a location? Where you involved in deciding on a time and date? How? Why?
4. What can you tell me about your impressions of those meetings? How much notice were people given? Were everyone's concerns fully discussed and addressed? How did people feel about that? What if anything do you think should have been done differently?
5. What can you tell me about the degree to which information was shared with everyone? When was it shared? Did everyone have the same access to the same information? Did you have any thoughts on what might have been done differently?

Transition: Describe any policies or programs that you know about, that deal with conflict or conflict resolution that are expected to be followed when potential aquaculture sites are being established

Topic: Conflict and conflict resolution processes

1. What are the major causes of conflict with respect to the clamming resources in this area?
2. How do you think conflict has been dealt with? Please elaborate.
3. What methods of conflict resolution are you familiar with? Can you describe them? Have you used them in the past? How has it worked?
4. What do you consider important aspects to consider in resolving conflicts? Dealing with it in a manner that supports or promotes sympathy and responsiveness for everyone's situations, a model that draws from the cultural knowledge of different parties, sustainable relationships or empowerment?
5. How do you think conflict should be resolved in a situation like this?

Transition: There is only a little bit of time left (20 minutes or so) in the session and this has really been great. Is there anything that you think was missed and should be addressed?

iii) The Closing

Topic: Summary of focus group discussions

1. Would each one of you summarize the main issues that were discussed?
2. I will do the same, and again, I invite you at any time to interrupt and correct me if I am wrong with my summary of the discussion
3. Again, thank you so much for having participated. If you have any questions or anything to add to what we discussed today, please feel free to contact me by email or by telephone. The information is on the letter of consent I provided you with at the beginning.

Appendix 3

Interview Schedule for Government Regulators

i) Opening

1. Hi my name is Courtenay Parlee and I am a Masters student at the University of New Brunswick and a student with the Coastal CURA, a community- university-research-alliance working to further Integrated Management in the Maritime region. Just so you know this project is on file with the UNBF research ethics board as file REB#2009-135.
2. Purpose: My research focuses on methods of conflict resolution in integrated management. I would like to develop a case study of the recent conflict in coastal management and to understand the various positions of all stakeholders and regulators. Because you are a government regulator who has the authority to manage the fisheries and oceans in clam harvesting area 2, I would like to ask you questions and have a discussion about the consultations with the clam harvesters in Clam Harvesting 2, and talk about conflict resolution processes in connection with the renewal of the 10 year aquaculture leases in St. Mary's Bay and the new CSSP classifications. I invite you at any point to interrupt me with anything you think is important.
3. Motivation: This semi-structured interview can be an opportunity to discuss past and current successes as well as 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 thesis. I am not here to solve anything. I value what you have to say and will not pass any judgment on your responses and comments.
4. 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?
5. 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 you coming to this interview session and would like to start by learning a bit about your background.

ii) Body

- a) Topic: Insight into their backgrounds
Objective: get them talking and gain some insight into where they are coming from, introduction to the topic of clam harvesting
1. Can you tell me a bit about yourself? Perhaps on where you grew up? Your education and why you wanted to work in the fisheries and oceans sector?
 2. How long have you been working in the fisheries sector? How long have you held your current position

Transition: I am interested in the formal processes that facilitate change in management for a particular resource. Can you describe the processes that were followed in the introduction of the St. Mary's Bay aquaculture leases? Can you describe the processes that were followed in the introduction of the new CSSP classifications? Aside from these formal processes, what other processes were you involved in with respect to these two changes? Processes can range anywhere from your experiences with the consultations to whether or not your concerns have been considered and addressed.

Topic: Design, implementation and participation in consultations

1. Who makes the decisions about which stakeholders should be consulted?
2. How were you informed and involved in the consultations?
3. How were you involved in setting the agenda for the meeting? Were you involved in deciding on a location? Where you involved in deciding on the time and date? Why? How?
4. What can you tell me about your impressions of those meetings? How much notice were people given? Were everyone's concerns fully discussed and addressed? How did people feel about that? What if anything, do you think should have been done differently?
5. What can you tell me about the degree to which information was shared with everyone? When was it shared? Did everyone have access to the same information? Do you have any thoughts on what might have been done differently?

Transition: Describe any policies or programs that you know about that deal with conflict or conflict resolution that are expected to be followed when potential aquaculture sites are being established.

Topic: conflict and conflict resolution processes

6. What are the major causes of conflict with respect to the clamming resources in this area?
7. How do you think conflict has been dealt with? Please elaborate.
8. What methods of conflict resolution are you familiar with? Can you describe them? What theories and methods were you using in the meetings? Have you used them in the past? How has it worked?

9. What kind of training do you have in consultation strategies, community facilitation and conflict resolution theory and methods?
10. What do you consider important aspects to consider in resolving conflicts?
Dealing with it in a manner that supports or promotes sympathy and responsiveness for everyone's situations, a model that draws from the cultural knowledge of different parties, sustainable relationships or empowerment?
11. How do you think conflict should be resolved in a situation like this?
12. What role do conflict and conflict resolution have in Integrated Management?
13. What type of training did you receive in connection with the use and implementation of Integrated Management?

Transition: There is only a little bit of time left (10 minutes or so) in the session and this has really been great. Is there anything else you think was missed and should be addressed?

iii) The Closing

Topic: summary of semi-structured interviews

1. Would you please summarize the main issues that were discussed?
2. I will do the same and again, I invite you at any time to interrupt and correct me if I am wrong with my summary of discussion.
3. Again, thank you so much for having participated. If you have any questions or anything to add to what we discussed today, please feel free to contact me by email or by telephone. The information is on the letter of consent I provided you with at the beginning.

Appendix 4

Alternative Interview Schedule for Environment Canada

- i) Opening
 - 1. Hi my name is Courtenay Parlee and I am a Masters student at the University of New Brunswick and a student with the Coastal CURA, a community- university-research-alliance working to further Integrated Management in the Maritime region. Just so you know this project is on file with the UNBF research ethics board as file REB#2009-135.
 - 1. Purpose: My research focuses on methods of conflict resolution in integrated management. I would like to develop a case study of the recent conflict in coastal management and to understand the various positions of all stakeholders and regulators. Because you are a government regulator who has the authority to manage the fisheries and oceans in clam harvesting area 2, I would like to ask you questions and have a discussion about the processes in connection with the renewal of the 10 year aquaculture leases in St. Mary's Bay and the new CSSP classifications. I invite you at any point to interrupt me with anything you think is important.
 - 2. Motivation: This semi-structured interview can be an opportunity to discuss past and current successes as well as 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 thesis. I am not here to solve anything. I value what you have to say and will not pass any judgment on your responses and comments.
 - 3. 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). Please keep a copy for your files and I will keep the other copy. As noted in the letter I will send you my notes once I have typed them up so that you can review them and confirm accuracy or correct any inaccuracies.
 - 4. Thank you for providing me with your consent to continue with this discussion. This interview should take approximately one hour. Do you have any questions or comments before we start?

Transition: I really appreciate you coming to this interview session and would like to start by learning a bit about your background.

- ii) Body
 - a) Topic: Insight into their backgrounds
Objective: get them talking and gain some insight into where they are coming from, introduction to the topic of clam harvesting

1. Can you tell me a bit about yourself? Perhaps on where you grew up? Your education and why you wanted to work in the fisheries and oceans sector?
2. How long have you been working in the fisheries sector? How long have you held your current position?
- 3.

Transition: I am interested in the formal processes that facilitate change in management for a particular resource. Can you describe the processes that were followed in the introduction of the St. Mary's Bay aquaculture leases? Can you describe the processes that were followed in the introduction of the new CSSP classifications? Aside from these formal processes, what other processes were you involved in with respect to these two changes?

Topic: Design, implementation and participation in consultations

1. Can you tell me about your roles and responsibilities and how they relate to the St. Mary's Bay Aquaculture leases and new CSSP classifications?
2. How were you involved in setting the agenda for the meetings?
3. Can you tell me about the policies and programs that are in place in connection with marine water quality? What are these policies and programs designed to accomplish and how are they designed to operate?
4. Can you explain the water quality problems in the area and the impact it has on clams?
5. What types of evaluations are being conducted? How is data being collected and how often?
6. What role does the information you provide play in how decisions are being made?
7. Can you tell me about your roles and responsibilities and how they relate to the St. Mary's Bay Aquaculture leases and new CSSP classifications?
8. Can you tell me about the policies and programs that are in place in connection with marine water quality? What are these policies and programs designed to accomplish and how are they designed to operate?
9. Can you explain the water quality problems in the area and the impact it has on clams?
10. What types of evaluations were conducted? How is data being collected and how often?
11. How and to whom is this information being shared with?
12. What can you tell me about the degree to which information was shared with everyone? When was it shared? Did everyone have access to the same information? Do you have any thoughts on what might have been done differently?
13. How were the clam harvesters involved in these processes?
14. How do you think the information or data that you provide is useful in conflict resolution?

Transition: There is only a little bit of time left (10 minutes or so) in the session and this has really been great. Is there anything else you think was missed and should be addressed?

iii) The Closing

Topic: summary of semi-structured interviews

1. Would you please summarize the main issues that were discussed?
2. I will do the same and again, I invite you at any time to interrupt and correct me if I am wrong with my summary of discussion.
3. Again, thank you so much for having participated. If you have any questions or anything to add to what we discussed today, please feel free to contact me by email or by telephone. The information is on the letter of consent I provided you with at the beginning.

Curriculum Vitae

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EDUCATIONAL BACKGROUND

Master of Philosophy in Policy Studies (student)

Expected date of graduate

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*Alternative Dispute Resolution Stream,
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Bachelor of Arts, History (Honours)

2006

Acadia University, Wolfville, Nova Scotia, Canada

Languages written and spoken: English and French

SELECTED WORK EXPERIENCE

Principle Investigator

on going 2010

*Coastal Community-University Research Project (CURA), Canada, Bay of Fundy
Clams—Sustainably Grown and Handpicked Just for You!*

Dr. Melanie Wiber, University of New Brunswick, Fredericton, Canada

- Working to repair the economic health of the clam industry in the Annapolis Basin through partnership development and participatory research (Nova Scotia)
- Oversee Marine Affairs Program graduate students conducting preliminary research for this project

Dr. Anthony Charles, Dalhousie University, Halifax, Nova Scotia, Canada

Learning Group Co-ordinator

2010

Digby, Nova Scotia, 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

Management Committee

on going 2009

Coastal CURA

- Student representative

Conference Committee

on going 2009

Coastal CURA Conference, People in Places: Engaging Together in Integrated Resource Management, June 26-29, 2010, Halifax, Nova Scotia, Canada

Capstone Film Committee **on going 2009**
Coastal CURA, Give us a Listen: Communities and Coastal Management

Rapporteur (Oceans Management Research Network) **2009**
University of Ottawa, Ontario, Canada

- Recorded assigned conference presentations and plenary sessions
- Produced briefing notes that contributed to post conference synthesis

Research assistant (Dr. Gillian Poulter, Department of History) **2005**
Acadia University, Wolfville, Nova Scotia, Canada

- Conducted bibliographic research on Jewish immigrants in Canada

Scribe for Disability Access Services **2005**
Acadia University, Wolfville, Nova Scotia, Canada

- Recorded lectures and in class discussions for a hearing impaired student

SCHOLARSHIPS

Coastal Community University Research Alliance Internship Grant **2010-2008**
St Mary's University, Halifax, Nova Scotia, Canada

Oceans Management Research Network Conference Grant **2009**
University of Ottawa, Ontario, Canada

Tuition Scholarship **2008**
University of New Brunswick, Fredericton, Canada

CONFERENCE PRESENTATIONS

Conference of the International Association for the Study of the Commons:
Hyderabad, India, January 10-14, **2011.**
Stinting the Intertidal Zone: The Many Dimensions of Privatizing a Commons

Coastal Zone Canada, Charlottetown: Prince Edward Island, Canada, July 25 to 29,
2010.

Alternative Dispute Resolution: Can it Advance the Stated Policies of
Integrated Coastal Zone Management?

Bay of Fundy Ecosystem Partnership Conference: Wolfville, Nova Scotia,
Canada, May 29 to 29, **2009.**
A Mediation Approach to the Integrated Management of the Fisheries

MAJOR RESEARCH PAPERS

Wiber, M., Pinkerton, E. & Parlee, C (2010) Stinting the Intertidal Zone: The Many
Dimensions of Privatizing a Commons. *Prepared for the Conference of the*

International Association for the Study of the Commons, Hyderabad, India, January 11-14, 2011.

Alternative Dispute Resolution: Can It Advance the Stated Policies of Integrated Coastal Zone Management? A Case Study from Clam Harvesting Area Two, Nova Scotia, Canada. *Master's Thesis in Progress, University of New Brunswick, Fredericton, Canada.*

The History of Residential Schools in Nova Scotia: Past Failures and Future Prospects. *Undergraduate Honours Thesis, Acadia University, Wolfville, Nova Scotia, Canada.*

REFERENCES

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