The Igalirtuuq Conservation Initiative: An Exploration of Collaborative Multi-level Environmental Governance Formation

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By

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ABSTRACT

In 2010, the Ninginganiq National Wildlife Area (NNWA) was formally established at Isabella Bay, Baffin Island, Nunavut. This designation suggests the site's importance for wildlife conservation, and as a potential component of an emerging network of Canadian marine protected areas. However, upon closer inspection, this wildlife area also represents a complex and lengthy initiative to conserve wildlife habitats, and to support local livelihoods and culture in the region. This long-term process, referred to here as the Igalirtuuq Conservation Initiative (ICI), dates back to the early 1980s when it began as a community driven initiative. Over the subsequent decades the initiative moved through several phases as it was shaped by surrounding socio-political events. The process remains ongoing today. This thesis takes an historical approach to understanding the formation of collaborative and multi-level environmental governance (CMEG). In order to do so, temporal and organizational, and thematic analyses are used to construct a detailed case study of the ICI. In addition to this, a framework of conditions for successful multi-level environmental governance is tested and refined based on the case study. This exploratory research finds that the many important conditions necessary for CMEG formation can be identified in governance theory, as well as by looking at social-political contexts specific to the case study.

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LIST OF ABREVIATIONS

ACMC- Area Co-management Committee

BRIA- Baffin Regional Inuit Association

BRWG- Biosphere Reserve Working Group

Canada/MAB- Canadian Man and Biosphere Committee

CBRA- Canadian Biosphere Reserves Association

CLARC- Community Lands and Resources Committee

CMEG- Collaborative Multi-level Environmental Governance

CWS- Canadian Wildlife Service

DFO- Department of Fisheries and Oceans

HTA- Hunters and Trappers Association

HTO- Hunters and Trappers Organization (formerly HTA)

ICI- Igalirtuuq Conservation Initiative

IBA- Impact Benefit Agreement

IIBA- Inuit Impact Benefit Agreement

INAC- Indian and Northern Affairs Canada

ISC- Isabella Bay/Igalirtuuq Steering Committee

NIWS- Nunavut Inuit Wildlife Secretariat

NLP- Nunavut Land Claims Process

NNWA- Ninginganiq National Wildlife Area

NTI- Nunavut Tunngavik Incorporated (formerly the Tungavik Federation of Nunavut)

NWMB- Nunavut Wildlife Management Board

QIA- Qikiqtani Inuit Association (formerly BRIA)

LIST OF TABLES

LIST OF FIGURES

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION

1.1 Framing the Research: Collaborative Multi-level Environmental Governance and the Igalirtuuq Conservation Initiative

The concept of environmental governance addresses participants and processes of human-environment decision-making (Reed, 2011). The evolution of environmental governance which is collaborative and multi-level, termed collaborative multi-level governance (CMEG), appears to be taking place in Canada. This concept is used here to refer to environmental governance arrangements which are collaborative or participatory, and which may evolve to include regional, national, or international governance nodes in environmental governance networks. This thesis explores the variables and respective conditions by which these governance arrangements emerge, using the Igalirtuuq Conservation Initiative (ICI) based out of Clyde River, Nunavut, as a case study. The key goals of this research are to explore the important socio-political context in which CMEG evolves, and to identify variables and conditions, which are of importance to CMEG formation. It is hoped that this will contribute to a better understanding of CMEG.

As a starting point, environmental governance arrangements face significant challenges in a complex and multi-level world (Armitage, 2008). Generally speaking, local level governance arrangements may face challenges addressing environmental issues at higher levels (Francis, 2008); top-down or centralized approaches may face challenges addressing important local or regional context (Ostrom, 1990); whereas collaborative approaches have the potential to reinforce inequitable power relations in management (Nadasdy, 2005; Reed, 2007). These shortcomings suggest a need for environmental governance which operates at multiple levels and which addresses multiple scales.

In addition to this structural concern, the specific accompanying socio-political context is also thought to be very important in understanding governance formation, but is often less understood (Pollock, Reed, & Whitelaw, 2008). In other words, while researchers have addressed environmental governance structure, i.e. through the study of environmental management, and common property systems, there has been less attention to the important socio-political contexts which influence governance i.e. political ecology. It is therefore important that researchers be aware of these two important determinants of environmental governance formation- both structure and context.

1.2 Purpose and Objectives

This research asks: **what conditions are needed to establish a collaborative multi-level environmental governance arrangement?**

In order to analyze governance arrangement formation, in a case study initiative in Canada, this research has the following objectives:

1) Propose a framework for understanding how collaborative multi-level environmental governance arrangements emerge, including the key necessary variables and conditions;

2) Empirically describe the formation and function of collaborative multi-level environmental governance arrangement; and

3) Identify important variables and their respective conditions for the emergence of collaborative multi-level environmental governance

To meet these objectives, three main research approaches have been taken. First, I developed a framework for analyzing a multi-level environmental governance arrangement formation. Second, I characterized the participants and environmental governance components surrounding a CMEG initiative in Canada. Third, I applied the proposed CMEG framework to

understand the role of political context and to identify any additional case-based variables which pertain to the establishment of the ICI governance arrangement.

1.3 Brief History and Geographical Characterization

To provide some brief historical context, the ICI is considered to be community-based because of its origins within the community of Clyde River (Community of Clyde River, 1990). The origins of the ICI can be traced back to the early 1980s. It was in 2008, however, that the Federal Environment Minister announced firm plans to establish the NNWA (Environment Canada, 2008) (Figure 1). In 2010 the NNWA was officially designated (Department of Fisheries and Oceans, 2010). The designation followed almost 30 years of work by local organizations, government agencies, non-government organizations, and Inuit organizations, to protect the important bowhead whale habitat at Isabella Bay (also known as Igalirtuuq, and now Ninginganiq). In addition to this goal, the conservation initiative has been concerned with heritage preservation, education, tourism, and the protection of natural resources (Community of Clyde River, 1990).

Important to this history, has been the effect of the Nunavut Land Claims Process (NLP) on conservation area designation in Nunavut. Established in 1993, this ongoing process has introduced and formalized mechanisms for collaborative environmental governance in Nunavut, as well as that which is attentive to conservation, socio-economic, and cultural concerns. It is such context that has shaped the evolving CMEG.

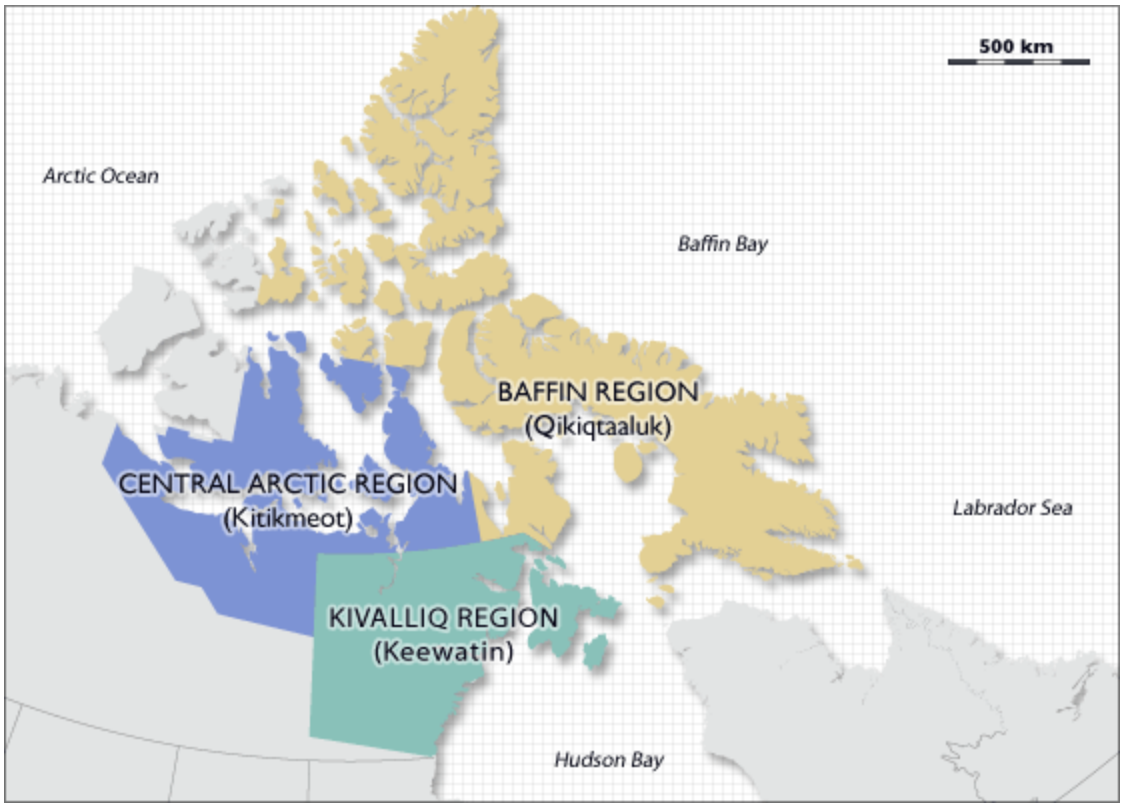

Figure 1The Qikiqtaaluk and other Regions of Nunavut

Source: Library and Archives Canada (2009) Retrieved from http://www.collections canada.gc.ca/inuit/020018-1601-e.html

The ICI has geographical significance ranging from the site to international levels. Isabella Bay itself is a coastal area in the Canadian Arctic, which is known to comprise important bowhead whale habitat (Community of Clyde River, 1990; Finley, 1990). The Igalirtuuq site is significant to Clyde River residents and other Inuit who have history in the region (Kemp, 1976; Hay, Aglukark, Igutsaq, Ikkidluak, & Mike, 2000). In addition to this, 18th Century whalers from Europe found the region to be important for commercial bowhead whale harvesting (Finley, 1990). It has been observed by Müller-Wille and Gieseking (2011) that it is within such a context that whalers and Inuit of Baffin Island developed early economic and social relationships. This appears to be the case in the region of interest to this case study. The Isabella Bay site is now significant to Aboriginal and Settler Canadians alike, and represents a host of values including:

renewable resource use, research, conservation, tourism, sustainability, heritage, and whaling (Community of Clyde River, 1990).

Clyde River is the closest settlement to Isabella Bay physically, being located roughly 120km northeast of the site. Inuit of Clyde River have close socio-economic ties to the site, which stem from historical and present use. People and organizations from Clyde River are credited with initiating and steering the ICI for over 25 years, and are now formally managing the site through the NNWA.

Isabella Bay and the settlement of Clyde River are both located within the Qikiqtaaluk (aka Qikiqtani) region of Nunavut, Canada (Figure 1). This region consists of a large group of islands, some of which are located above the Arctic Circle. This region is characterized by striking physical features, remoteness from southern Canada, and relatively limited non-renewable resources and economic opportunities (Warkentin, 1997). Within the Qikiqtaaluk region, the three settlements which are located closest to Isabella Bay are: Clyde River (aka Kangiqtugaapik), Pond Inlet (aka Mittimatalik/Tununiq), and Qikiqtarjuak (formerly Broughton Island).

In 1999, the territory of Nunavut was formally established through the Nunavut Land Claim process (NLP) which has been viewed as an assertion of Inuit sovereignty and rights (Légaré, 2010). Along with providing for the creation of the Territory of Nunavut in 1999, the NLP changed environmental governance arrangements within the territory, and between Nunavut and the Federal Government of Canada. As examples of this, joint state-Inuit co-management boards, and impact-benefit agreements now characterize environmental governance in Nunavut (White, 2002).

Environmental governance arrangements which pertain to the study area have been addressed by environmental governance researchers with emphasis on the institutional structures of multi-level environmental governance formation (Dowsley, 2008; Daoust, Haider, & Jessen, 2010). However, this thesis seeks to address the important socio-political contexts which shape these institutional structures over time, especially as they relate to both collaborative and multi-level environmental governance processes.

1.4 Thesis Overview

From an environmental governance perspective, and using the ICI in Nunavut Canada as a case study, this thesis explores key variables and conditions which are thought to be necessary for CMEG formation. Chapter 1 has outlined the basis for this research including the research objectives. It has also provided some basic historical and geographical context. In Chapter 2, this research will bring together several bodies of literature in order to express the importance of theory as well as socio-political context in understanding collaborative multi-level environmental governance. It then presents a framework of the variables and conditions which are thought to contribute to the successful formation of CMEG. This chapter is followed by an explanation of the research methods, approaches, and data sources in Chapter 3. In Chapter 4, an organizational and temporal analysis of the governance arrangement formation process will be presented, followed by a thematic analysis of variables for CMEG formation in Chapter 5. These analyses will be discussed, followed by some conclusions in Chapter 6.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter discusses several different themes found in the literature which are seen as relevant to environmental governance including: environmental management, common property systems, and political studies. In doing so, the concept of governance is explored, followed by the characterization of five theoretical approaches to governance of importance to this thesis. These include: self-organized, which are often highly localised; top-down, which are often highly centralised; and collaborative, which, in various ways, bring together participants from other such approaches. Under the collaborative governance heading, three specific approaches are discussed which include: community-based, deliberative, and co-operative approaches. In addition to these, ecosystem-based and multi-level approaches are discussed as these are arrangements which place emphasis on multiple biophysical and social scales of importance to environmental governance. Collaborative multi-level environmental governance (CMEG) is then presented as conceptual framework through which the aforementioned governance approaches may be operationalized. Following this, conservation areas are discussed as they pertain to CMEG. Finally, I present a framework of variables and conditions which are thought to contribute to successful CMEG arrangement formation based on the literature reviewed.

2.2 Governance

The concept of governance implies a conceptual broadening of decision-making from concentrated points, such as the nation-state or local resource users, to include various institutions, agencies, and organizations. One comprehensive definition is given by Lebel, Anderies, Campbell, Folke, Hatfield-Dodds, Hughes, and others (2006, n.p) who wrote that:

> Governance includes laws, regulations, discursive debates, negotiation, mediation, conflict resolution, elections, public consultations, protests, and other decision-making processes. Governance is not the sole purview of the state through government, but rather emerges from the interactions of many actors, including the private sector and not-for-profit organizations. It can be formally institutionalised or expressed through subtle norms of interaction or even more indirectly by influencing the agendas and shaping the contexts in which actors contest decisions and determine access to resources.

Similarily, Treemer, Dewulf, & Van Lieshout (2010, n.p.) described the process of governing as "as a process of continuous interactions among governments and private entities, operating at, and between, several administrative levels." As such, the concept of governance should be distinguished from 'government' or 'self-government' because it refers to broader and ongoing arrangements (Sterritt, 2001).

Governance arrangements can be characterized by various features such as: participants (i.e. community-based), scale (i.e. multi-level), and thematic focus (i.e. corporate governance). As observed by Borrini-Feyerabend (2003, p. 93) "one property of a governance system—namely 'who' holds management authority and responsibility and is expected to be held accountable to others — appears more characterizing than others." Based on this observation, three governance arrangements which pertain to this thesis include: self-governing, top-down, and collaborative. Of thematic interest to this research is environmental governance, which can be thought of as "compris[ing] the rules, practices, policies, and institutions that shape how humans interact with the environment" (United Nations Environment Program, 2009, p. 2). Accordingly, of additional thematic importance are ecosystem-based and multi-level governance

arrangements, which generally address spatial properties of governance. Additionally, it should be noted that, while these five approaches are not mutually exclusive, they do represent specific emphases, and each can exist separately or in conjunction with one another.

2.2.1 Self-governing Approaches

Much of the research describing self-governing approaches appears in the common property literature, which has often focused on localized instances of common-pool resource governance. From this work, we can identify key characteristics, strengths, and weakness associated with self-governing systems, as they pertain to environmental governance (Table 1). According to Ostrom (1990), successful self-governing arrangements typically entail relatively few resource users, high levels of communication and trust, and little intervention from other organizations. Resource users may also make many if not all decisions about a resource (Ostrom, 2002).Such systems have often developed over very long time periods, and may be based on paradigms and knowledge of local people (Ostrom, 1990). Young (2002) characterizes such local governance as being relatively informal compared to institutions which exist at higher levels. Common characteristics of self-governing systems entail several strengths and weaknesses from an environmental governance perspective.

Potential strengths of self-governing systems are thought to stem from the employment of local capacity including: heightened attention to local context, the inclusion of local knowledge and world-views, and the potential for increased flexibility as they may not be encumbered by potentially distant sources of rigidity and formality (Ostrom, 1990). However, some shortcomings have also been identified for localised self-governance in a world where influence extends beyond the local level.

Table 1 Summary of Governance Approaches Addressed in Literature Review with Selected Characteristics

Governance Approaches	Decision-makers	Level	Characteristics	Example
Self-governing	Resources users, with little outside influence	Often local	Limited intervention from outside agencies (Ostrom, 1990) Tailored to local context (Ostrom, 1990) Potentially informal (Young, 2002) Potential for unevenness over space (Reed, 2007)	Common-pool Resource governance
Top-down (centralized)	Government agencies	National, territorial, regional	Often formal (Young, 2002) Based on a single paradigm (Reed, 2009) Rigid (Holling & Meffe, 1996)	State wildlife management
Collaborative	Government agencies Local or regional organizations Public	Multiple	May be more or less formal Increased knowledge base (Natcher *et al.*, 2005) Potential to maximise common goals (Young, 2002) Potential for conflict or tension between different participants (Young, 2002) Potentially inclusive of local and state governance approaches (Pinkerton, 1989)	Community-based Co-operative agreements
Ecosystem-based	Planners and managers (Slocombe, 1998)	Local, regional	Seeks to integrate ecological, social, and economic scales (Slocombe, 1998)	Integrated coastal management
Multi-level (networked)	Any two or more of the above	Multiple	Potential for conflict or tension between levels (Young, 2002) Redundancy (Berkes, 2009b)	Biosphere reserve

Self-governing arrangements are often subject to external processes. For example, self-governing arrangements are subject to influence from other systems which may support or undermine the ability of self-governing systems to meet a given objective (Ostrom, 2002). With reference to local self-governance in a multi-level world, Francis (2008, p.15) observed that "[w]hile local situations will remain critically important…everything that happens locally isn't caused there." On this matter Oran Young (2002, p. 285) wrote that "[n]ational and even international arrangements are needed to manage human activities relating to large marine and terrestrial ecosystems." As such, despite the potential for successful self-organized governance at the local level, it may be difficult to foster characteristics such as high levels of communication, attention to local context, and flexibility at the national and international levels. The potential advantages and challenges associated with self-governing systems are of importance when considering governance both within, and across, various levels of organization (Young, 2002).

2.2.2 Top-down Approaches

Top-down (or centralized) approaches to governance are those in which centralized institutions undertake decision-making and implementation (Termeer, Dewulf, & van Lieshout, 2010). These approaches to governance remain a powerful legacy in environmental governance (Holling & Meffe, 1996), something which may be attributed to the prominent role given to scientific and managerial worldviews in understanding human-environment relations in the past (Reed, 2009). Some strengths and weaknesses of top-down management are summarised below (Table 1).

Strengths of centralized top-down governance appear to stem from relatively high levels of formal power, capacity and legitimacy (i.e. by the state), in governing processes (Sampford,

2002). Perhaps for these reasons, it can be argued that top-down management has been quite resilient in environmental governance (Dale & Armitage, 2011). Top-down approaches to environmental governance are seen as being based on a relatively narrow paradigm, which may appear to exhibit relatively little conflict in the short term (Clark, Lee, Freeman, & Clark, 2008). Due to the centrality of top-down approaches, they may also be well-suited towards employing systematic approaches to governance over broad spatial and thematic units (e.g. Reed, 2009). This being said, top-down approaches to environmental governance have also been criticized for several important reasons.

Challenges associated with top-down approaches seem to stem from the application of a professionalized management paradigm to realms of decision-making which require broader philosophical approaches. For example, past failures of top-down approaches to environmental governance, which are based on Western Science, suggest the very high importance of understanding "nature, culture, and the local context" (Wilkinson, Clark, & Burch, 2007, pp. 3). This position aligns with observations by Freeman (1989, pp. 137) that state-management systems are often "imposed from a distance and reflect values markedly different" from those at the local level.

It has also been observed that the application of top-down or "command-and –control management" may not always result in intended consequences because it tends to reduce system resilience (Holling & Meffe, 1996). Bryant and Wilson (1998) see problems with top-down environmental management as: the inability to reconcile interests at different levels; the inability to accommodate different understandings of environmental issues by different actors; the de-contextualization of perceived problems; and the failure to include non-state actors throughout decision-making and management processes.

Subsequent critiques have pointed to a narrow identification of environments and resources under science-heavy management approaches, and the potential exclusion of local people in meaningful environmental decision-making (Castlden, 2009; Reed, 2009; Natcher & Davis, 2007). Top-down approaches to governance are also considered to be rigid in the face of crisis making it unlikely to provide effective and flexible responses (Holling & Meffe, 1996).

2.2.3 Collaborative Governance Approaches

The term collaborative is used here to refer to a range of approaches to shared governance (Table 2). These processes of planning, consensus building, and implementation (Margerum, 2008), may include: the state, non-government organizations, local and regional participants, and private actors (Berkes, 2004). Reasons for the emergence of collaborative approaches to environmental governance include: the aforementioned challenges to top-down and self-organized approaches, as well as a need to address emerging philosophical, legal, and political trends and developments such as: the adoption of systematic approaches to understanding environments, the inclusion of humans in ecosystems, and the rise of non-expert knowledge and approaches to governance (Berkes, 2004). From political and legal perspectives, some collaborative approaches to governance can also be traced to the assertion of indigenous rights in the governing process, particularly as this relates to decision-making surrounding lands, waters, and resources (Hessing, 2005). These developments have resulted in the rise of numerous approaches to collaborative environmental governance, which differ in their approaches to planning and implementation (Margerum, 2008).

Several collaborative governance approaches which are of interest to this thesis include: community-based, deliberative/negotiated, and co-operative/co-managed. These approaches, as

well as pertinent governance frameworks of interest to this thesis are discussed below with attention to features of importance to collaborative environmental governance.

Table 2 Three Collaborative Governance Approaches

Type	Key Characteristics	Example
Community-based	Focus on the local level Accessing or building community capacity for governance	Conservation planning
Deliberative/negotiated	Issue based May precede governance formation	Impact Benefit Agreement
Co-operative	Formalized arrangement for governance	Co-management Agreements

2.2.3.1 Community-based Approaches

According to Dressler, Buscher, Schoon, Brockington, Hayes, Kull *et al*. (2010), community-based approaches to governance can be characterized by the employment of local capacity. Marshall (2008) characterizes early community-based approaches to governance as a reaction to the failures of conventional governance approaches. Community-based approaches are considered to be inclusive and sensitive to local needs and benefits (Berkes, 2007). While the approach has been considered an empowering practise of researchers, NGOs, or state managers (Marshall, 2008), actual outcomes have been mixed (Table2).

Community-based approaches to governance are thought to increase local or community level involvement in decision-making, by increasing the ability of communities to become involved in governance processes (Dressler *et al*., 2010). This approach may entail the provision of resources, or the mobilization of political will around a specific problem or issue (Marshall,

2008). However, the extent to which it is actually empowering for communities has been called into question (Berkes, 2004; Dressler *et al*., 2010).

Shortcomings which have been associated with community-based approaches to governance appear to stem from its application outside of the original context in which it was developed (Dressler *et al.*, 2010), as well as some of the assumptions on which these approaches are based. Dressler *et al*. (2010) argue that it is when this approach is applied beyond a small spatial scale and with many participants, that its effectiveness in empowering communities is reduced. Perhaps this is because as Marshall (2008, p.75) suggests the "'up-scaling' of community-based approaches has run well ahead of knowledge about how they might work." In addition to this, Dressler and others (2010, pp.7) point to examples of community-based conservation which "have been implemented under the broader assumption of how rural people and livelihoods should be or become over time: productive citizens who embrace modernity" as opposed to "original objectives of local empowerment for rights to land, livelihood and conservation" There are also potential challenges for community-based approaches within perceived communities.

Looking within communities, Argawal and Gibson (2001), observe that community-based approaches are often idealised because the idea of a single community may hide different interests at the local level, with the subsequent danger of fostering inequality. Looking across communities, Reed (2007) also identifies the potential for spatial inequity in environmental governance which relies heavily on local capacity. Some have suggested that in a multi-level world, too much emphasis at the local level may lead to ignorance of important processes (e.g. development) at higher (e.g. regional and national) levels (Berkes, 2006).

2.2.3.2 Deliberative/Negotiated Approaches

Deliberative approaches to governance (Table 2) are characterized by Meadowcroft (2004, pp.183) as an "extension of group-based deliberative interactions— which draw together actors from government, business, and civil society to address specific problems..." This definition closely describes formal requirements for negotiations which are present in the formation of some environmental governance arrangements. According to Knostch and Warda (2009), negotiations between governance participants including governments, business, and aboriginal organizations, are now common in resource development and conservation undertakings which are subject to land claim processes. These approaches to governance formation can be considered attentive to context since agreements vary from cases to case (Prno, Bradshaw, & Lapierre, 2010). They may be seen as being operationalized through Impact Benefit Agreements (IBAs).

IBAs, which typically involve the negotiation of costs and benefits of a given initiative between the proponents and those affected, are seen as being potentially good for communities who may successfully negotiate benefits of economic development, as well as for companies who may reduce uncertainty surrounding resource extraction (Prno *et al*., 2010). However, as these authors have also observed, this assumes IBAs are operating as expected.

Some weaknesses which have been observed in these agreements include the lack of transparency, and loss of subsequent learning opportunities surrounding the processes and outcomes of these negotiations (Knostch & Warda, 2009). Others have raised concerns about IBAs between communities and industry including: the lack of transparency, potential difficulties in monitoring and dealing with violations of the agreement, as well as the overall ability to address social justice concerns facing Aboriginal communities (Caine & Krogman,

2010). It should be noted that these criticisms are pointed at private IBAs signed between First Nations and industry, and it is unclear whether IBAs negotiated between indigenous groups and others such as governments, are subject to the same criticisms. It appears that some of the concerns which have been raised are better addressed in government IBAs which tend to be more "comprehensive" (Knostch & Warda, 2009).

2.2.3.3 Co-operative/Co-management Approaches

Co-operative (aka co-management) approaches are used in order to describe "a process of shared decision making between decision-makers and resident stakeholders" (Pinkerton, 1989, pp. 5). Differentiating it from community-based approaches, these approaches entail formalised participation in joint decision-making and are seen by some as being a creative way of problem solving in the face of difficult management conditions (Pinkerton, 1989) (Table 2).

Presumed strengths of taking such approaches to environmental governance include the potential to "enhance the pool of available human resources from which management decisions are drawn" (Natcher *et al*., 2005, p. 240). It is also presumed that it can "ensure that both the traditional knowledge and expertise…and best scinetific data are combined effectivly in all decision-making processes" (Department of Fisheries and Oceans 2011, n.p.). However, in practise, the certanty of such predictions has been called into question.

Critiquing early co-operative approaches, Reed (1993) argued that they have been applied with little understanding as to whether they would actually accomplish intended goals. The potential reinforcement of uneven power relations has also been cited as a potential outcome of such approaches. For example, Armitage (2008, p. 23) observed that "[t]he relatively recent move to formalization of community-based co-management process and to build multi-level

governance will not easily overcome the historical legacy of centralised decision making." These considerations are important for understanding the planning and implementation of environmental and other governance arrangements.

Collaborations can take place at different levels, and operate in different ways (Margerium, 2008). These collaborative approaches which have been discussed may also be extended to comprise, or feed into multi-level governance. One example of this may be ecosystem-based frameworks which link different levels of decision-making in order to address multi-scale issues.

2.2.4 Ecosystem-based Governance Framework

Ecosystem-based (or integrated) approaches to governance are characterized as being attentive to biophysical, social, and cultural scales; and geared toward ecosystem integrity and sustainability (Slocombe, 1998) (Table 1). Key characteristics of ecosystem-based approaches to environmental governance include: recognition of complexity, transdiciplinarity, reflection of wide ranging interests, participation, and adaptation (Slocombe, 1998). Ecosystem-based governance is also seen as requiring a multi-level approach in order to do so (Folke, Colding, & Berkes, 2003). There are both strengths and weaknesses associated with such an approach to governance.

Strengths of ecosystem management lie in the recognition of the importance of social, economic and biophysical components of ecosystems. Ecosystem management recognizes cultural diversity in environmental governance, by seeking to undertake an "integrative process" of planning and management (Slocombe, 1998). As a relatively new paradigm, processes of

implementation are still underway leaving room for creativity (Cobb, Berkes, & Berkes, 2005). With this being said, some potential weaknesses of ecosystem management should be noted.

Potential weaknesses in ecosystem management may relate to difficulties in addressing the various important aspects of decision-making. For example, Glaser (2006) identifies the "social dimension" of ecosystem management as being particularly challenging due to different worldviews on human-nature relationships. Therefore, there is a danger that a narrowly framed discourse may hinder meaningful participation in such governance arrangements (Clark and Slocombe, 2009). Additionally, despite expressed interest, some governments appear to have a poor track record of actually implementing ecosystem-based management (Cobb *et al.*, 2005). According to these authors, one reason for this is thought to be a lack of sufficient resources and capacity. Attention to the strengths and weaknesses of ecosystem management is of importance in considering its application.

2.2.5 Multi-level Governance Approach

Multi-level governance is that which includes institutions and organizations in decision-making at multiple levels (Table 1). As Eckerburg & Joas (2004) observe there are two main theoretical characterizations of multi-level governance: the first emphasises collective decision-making using the principle of subsidiarity (also referred to as vertical multi-level governance), and a second characterization which emphasises the horizontal empowerment of non-government actors at different levels. The first type of multi-level governance entails the vertical and or horizontal distribution of decision-making under the support of the state, and the second describes the transition of power from the state to non-governmental actors or stakeholders (Eckerburg and Joas, 2004). While multi-level governance tends to erode the traditional powers

of institutions such as nation states (Eckerburg & Joas, 2004), the participation of these institutions may remain important to governance function (Guenette & Alder, 2007). The potential strengths and weakness of these processes are discussed below, with reference to environmental governance.

Vertical multi-level environmental governance may have the potential to help overcome governance challenges by better responding to complexity. As synthesised by Dowsley (2007), the strengths of multi-level governance include: recognition of local or community-based management, its aim to distribute responsibilities to different levels of governance, attention to all pertinent levels from the local to the global, and attention to formal and informal governing participants. In their article Barrett, Brandon, Gibson, & Gjertsen (2001) argued that conservation decision-making ought to be multi-level to: avoid pitfalls associated with both top-down and bottom up approaches, adapt to specific social and environmental landscapes, as well as share power over numerous organizations and institutions. In addition to these potential advantages, multi-level governance may provide a framework for the co-existence of different cultures in governance (Stevenson and Natcher, 2010). Likewise, by recognizing such a distribution of power, it may also have the potential to accommodate multiple worldviews, and governments in the governing process (Caine, Salomons, & Simmons, 2007).Young (2002) also notes its potential for maximizing common goals.

With these potential opportunities noted, potential challenges to multi-level environmental governance also exist. Experiences from Canada seem to suggest that a lack of leadership capacity at multiple levels may be hindering vertical multi-level governance formation. For example, with regards to ecosystem-based marine management Cobb and others (2005) note a general lack of government capacity to undertaken multi-level governance. It is

also recognised by Young (2002), and that governance challenges may arise through the process of incorporating different paradigms of decision-making within a specific governance arrangement. Further challenges may include difficulties capturing sufficient context in place-based governance (Dowsley, 2008). Redundancy may also be considered a potential weakness in multi-level governance, although some also see it as increasing resiliency (Berkes, 2009b). With reference to the potential differences between types of multi-level governance, Reed (2007) shows how the presence or absence of participation at one level, may lead to inequitable governance arrangements in different places. In other words, the absence of vertical environmental multi-level governance, may lead to the development of horizontal multi-level governance.

Having discussed the main approaches to governance which are expected to be encountered in this case study, it is apparent that current environmental governance formation may need to incorporate elements of several different environmental governance approaches. In addition to this, governance may also be framed by one or more models such as the ecosystem or multi-level frameworks. It has also been observed that environmental governance processes may exemplify shifts or layering of different approaches and associated institutions.

2.3 Collaborative Multi-level Environmental Governance (CMEG)

CMEG is a concept which aims to describe collaborative approaches to governance which may also evolve or feed into multi-level governance arrangements. Examples of such approaches may include the concept of adaptive co-management (Armitage *et al.*, 2007), or an evolving collaborative multi-level governance (Davidson-Hunt, Berkes, Natcher, Peters, & Trapper, 2009). While adaptive co-management emphasises collaboration, learning, and multi-

level governance, evolving multi-level co-management describes the potential evolution of collaborative governance toward adaptive governance.

Some have noted the importance of including elements of aforementioned governance approaches in a multi-level environmental governance framework, especially for conservation. For example, Berkes (2006) notes the importance of including multiple levels of governance in conservation so as to meet multiple objectives, undertake important deliberation, apply knowledge, and address complexity. CMEG therefore implies the existence of both collaborative management, as well as the presence of linkages with governing organizations at different levels (i.e. ecosystem management). It may also entail the inclusion of the governance arrangement within broader networks.

2.3.1 Conservation Areas: Potential Place-based CMEG

Conservation areas can be thought of as places with environmental and cultural aspects "of special value" (Dearden & Rollins, 2009 pp.3; Dearden & Langdon, 2009). As opposed to the common concept of a park, conservation areas are actually quite broadly defined. As explained by Borrini-Feyerabend, Farvar, Nguinguiri, & Ndangang (2004 pp.19) "for thousands of years, indigenous and local communities, kings and other rulers, aristocrats, priests and shamans have set up what we would now call conservation regimes, with rules regulating or forbidding access to natural resources." Conservation areas are discussed below with regards to environmental governance using several examples which pertain to this research.

The aforementioned purposefully broad characterization of conservation areas reflects the fact that the park model represents a narrow, although prevalent, tool for conservation, and it should be recognized that self-organized conservation territories do exist. As observed by Notzke

(1994, p.229) “while the ingredients [i.e. protective legislation] of the Euro-American Parks concept are [potentially] alien to aboriginal ways of thinking, veneration for and protection of special places are not.” This reality is being reflected, through the broadening of conservation categories by the International Union for the Conservation of Nature to reflect the variety of ownership and use arrangements (Borrini-Feyerabend *et al*., 2004). With this being said, one question of importance is the extent to which current conservation discourse and governance allows for the fair expression of such alternative views and approaches (Natcher, personal communication, 2012).

Applicable to this thesis, Berkes (2009a, pp. 19) has observed that “Indigenous and Community Conserved Areas (ICCAs)” can be integrated into national (and international) networks however, this takes considerable effort. Indeed, as observed by Fenge (2008, p. 4) it should now be recognized that:

> aboriginal peoples have negotiated their way as collectives into the Canadian polity and they have become important actors in decision-making on economic development and environmental conservation. Those who want to promote parks and conservation areas in the North must understand and tailor their activities to this reality.

In Nunavut, NWAs and other conservation areas are now established and managed using a collaborative process between local, regional, and national Inuit organizations, and government agencies (Mallory, Fontaine, Akearok, & Johnston, 2006). National Wildlife Areas (NWAs) “establish areas necessary for the protection…of any species of non-domesticated animal in danger of extinction, or to acquire lands for the purposes of wildlife research, conservation, or interpretation, in both terrestrial and marine ecozones.” (Mallory *et al*., 2006 p.208). This

process may be thought of as the inclusion of indigenous and community conserved areas in national and international networks (Berkes, 2009a).

One potential mechanism for this process may be the biosphere reserve designation which is obtained through UNESCO's Man and Biosphere Program. Biosphere reserves were initially promoted as a means to understand the connection between human and ecological systems (Reed, 2009), and are currently promoted as protected areas that seek to model sustainability by pursuing three main objectives: protecting biological and cultural diversity; pursuing sustainable development and livelihoods; and providing the means to undertake research, demonstration, and learning about sustainability. They seek to achieve these objectives through engagement of civil society actors, government agencies, and the private sector in models of shared governance that are adaptive and collaborative across multiple jurisdictions (Pollock *et al.*, 2008). As suggested, conservation may be an important opportunities for implementing and or better understanding multi-level environmental governance.

2.3.2 A Framework for Collaborative Multi-level Environmental Governance (CMEG) Arrangement Formation

Based on this review of literature, and the author's understanding of the case study context, a framework describing variables and conditions for successful CMEG formation has been developed. The key variables identified include: goals and objectives; legislation, policy, and political support; human and financial resources; roles and responsibilities; and relationships and processes (Table 3). Each of these is discussed below, with additional mention of important conditions of each variable.

2.3.2.1 Goals and Objectives

The goals and objectives which underlie the formation of multi-level environmental governance arrangements are both practically and normatively important. It is argued that the inclusion of multiple objectives in governance formation may help consensus building by bring together those with different interests, while the realization of common and or compatible interests may improve group cohesion and help in problem solving. These important aspects of goals and objectives are considered below.

Table 3 Framework of Variables and Conditions for Multi-level Environmental Governance Arrangement

Variables	Conditions	Source
Goals and objectives	Multiple objectives	Dowsley, 2008
	Common and compatible goals	Clark and Slocombe, 2009
Legislation, policy, and political support	Enabling legislation	Berkes, 2002
	Enabling policy	Berkes, 2002
	Political support	Berkes, 2002
Human and financial resources	Human resources	Reed, 2007
	Financial resources	Reed, 2007
Roles and responsibilities	Defined roles and responsibilities	Singleton, 2009
	Distributed roles and responsibilities	Young, 2002
	Respect for Aboriginal rights	Singleton, 2009
Relationships and processes	Cross-level linkages	Berkes, 2002
	Space for multiple worldviews	Natcher and Davis, 2007
	Discourse and language	Clark and Slocombe, 2009
	Managing multi-level interactions	Natcher *et al*., 2005

2.3.2.1.1 Multiple Objectives

The potential to address multiple objectives in multi-level governance is high because of the variety of participant interests at different levels (Dowsley, 2008). According to her research common objectives in multi-level environmental governance may vary across conservation, socio-cultural, and economic scales. The clarity of multiple goals and objectives is also thought to be important. For example, Guenette and Alder (2007, p. 55) show how very early on, the absence of clear "vision, objectives, and structure" in governance formation may hinder success.

2.3.2.1.2 Common and Compatible Goals

While goals may not necessarily need to be shared by all in CMEG, they should be compatible. As Clark *et al.* (2008) show, the identification of common interests is very important in multi-level governance where multiple and competing objectives exist. Based on an analysis of polar bear governance, these authors argue that in the face of conflict, the identification of common interests can contribute to the resilience of environmental governance arrangements. Natcher and others (2005) also note the potential for shared goals, values, worldviews, and norms, to foster group identity. Discourse and negotiation may help to reveal common or compatible goals which may not be well understood due to cultural differences (Clark & Slocombe, 2009).

2.3.2.2 Legislation, Policy, and Political Support

For successful multi-level governance it is likely that formal legislation will have to enable the distribution of responsibilities among different levels of social organization. In

addition to this, evidence suggests that political support is needed at multiple levels to actualise the goals and objectives of CMEG. These variables are each discussed below.

2.3.2.2.1 Enabling Legislation

Berkes (2002) discusses the importance of enabling legislation in multi-level governance for empowering a variety of institutions in the governing process. With this being said, there is no evidence suggesting that there must be enabling legislation (Peters, 2002), rather that it can help to create better conditions for successful multi-level environmental governance (Peters, 1986 in Berkes, 2002). As an example of this, the Nunavut Final Agreement has required co-management of natural resources in Nunavut. While ultimate authority remains in the hands of the federal government, this is seen as a relative shift in the distribution of power in Nunavut (White, 2002).

2.3.2.2.2 Enabling Policy

Along with legislation allowing CMEG, it is thought that supportive policy can help to achieve CMEG by legitimizing multiple levels of decision-making (Berkes, 2002). Policies are seen as providing direction to the actions of governments and other organizations, and may therefore affect the success of governance initiatives.

2.3.2.2.2 Political Support

The presence of political support may also enable successful CMEG. This is because, while legislation may enable a specific governance arrangement, acting on the legislation

depends on political support (Berkes, 2002). Guenette and Alder (2007), stress the importance of taking time to build consensus among stakeholders in complex governance arrangement formation to build political support. These authors cite examples of marine management initiatives which failed due to a lack of basic political support at the various levels of organization.

2.3.2.3 Human and Financial Resources

With the distribution of roles and responsibilities in CMEG, there may be need for the distribution of human and financial resources between or within the governance arrangement. This may be especially true in cases where new institutions are being created. Such activity is often addressed in terms of human and financial capacity. Each of these is discussed below.

2.3.2.3.1. Human Resources

Different places and levels of organization experience different levels of access to human resources. As Reed (2007) has observed, governance arrangements which rely heavily on local human capacity may exhibit unevenness in the ability to steer environmental governance process at the local level and beyond. Guenette and Alder (2007) suggest that government agencies in Canada have had inadequate capacity to follow through on multi-level governance arrangements in the past.

2.3.2.3.2 Financial Resources

Financial resources are important to any governance arrangement, although they may be unevenly distributed across space, and levels of organization (Reed, 2007). As such, an

important condition for successful multi-level environmental governance arrangement formation is thought to be the distribution of financial resources. Guenette and Alder (2007) suggest that adequate funding is necessary for conducting consultations, research projects, and establishing institutions necessary for CMEG. Often a distinction is made between core funding and project funding whereby core funding provides for the baseline operations of an agency or organization.

2.3.2.4 Roles and Responsibilities

For successful multi-level environmental governance, it is thought that the definition and distribution of roles and responsibilities is important, as is respect for participant rights. This is because these factors may influence the order in which participants enter into the governance formation process (Singleton, 2009), as well as help to assign tasks to appropriate levels of social organization (Young, 2002). The recognition of participant rights in multi-level environmental governance arrangement formation may have important legal implications in places such as Canada and the United States, where relationships between some societies and the state are still being negotiated, and may therefore be subject to legal challenges (Singleton, 2009). Each is of these is discussed below.

2.3.2.4.1 Defined Roles and Responsibilities

The definition of roles and responsibilities is thought to be important for successful CMEG arrangement formation. Singleton (2009) observes that there tends to be a lack of recognition of some important roles and responsibilities in collaborative and multi-level governance. For example, she observes that in North America, Aboriginal groups, as right

holders, tend to have different roles from more general stakeholders in environmental governance. Attention to such important context may help to design successful governance processes, by understanding the potentially different points at which participants ought to enter into a decision-making process (Singleton, 2009).

2.3.2.4.2 Distributed Roles and Responsibilities

Distribution of roles and responsibilities or power-sharing is a definitive condition for multi-level environmental governance. On this matter, Oran Young (2002, p. 285) suggests that "the key to success lies in allocating specific tasks to the appropriate level of social organization." In doing so, the need for a process of "institutional bargaining" (2002, p. 285) arises in order to:

> design and manage institutional arrangements that recognise different types of knowledge and protect the rights and interests of local stakeholders, even while they introduce mechanisms at higher levels of social organization required to cope with the dynamics of ecosystems that are regional and even global in scope.

This observation recognizes the importance of multiple levels in environmental governance, suggests the potential importance of deliberation and negotiation in CMEG formation, especially at the early stages, and suggests a potential role for higher level organizations in facilitation such processes.

2.3.2.4.3 Respect for Aboriginal Rights

It is thought that CMEG requires the explicit recognition of the rights of Aboriginal participants. As observed by Anderson, Dana, & Dana (2006, pp. 54):

> After centuries of struggle buttressed by decisions of the Supreme Court of Canada, during the final three decades of the 20th Century, the approach to indigenous claims has shifted from contention to negotiation and enterprise. No longer does the state contest the existence of indigenous rights to land, resources, and some form of 'self-government'. Instead, it seeks to negotiate agreements based on these rights that will form the foundation for prosperous indigenous 'nations' within Canada

Singleton (2009), with reference to marine management, points out that many aboriginal groups in Canada have, are, or will, negotiate their relationships with society through land claim agreements and litigation, and that these processes have important implications for environmental governance arrangements. The specific aboriginal rights which are recognised must be taken into account in environmental governance, and may include: a duty to consult and accommodate with aboriginal peoples, aboriginal peoples' harvesting rights, and or aboriginal peoples' rights to govern (Singleton, 2009). With reference to marine protected areas Singleton (2009) highlights the importance of addressing rights which pertain to things such as resources, consultations, and accommodation in environmental governance.

2.4.2.5 Relationships and Processes

In literature pertaining to collaborative and multi-level environmental governance, there is increasing concern for the relationships and processes existing between agencies and

organizations in environmental governance (Berkes, 2002; Armitage, 2008; Dowsley; 2008). Key aspects of these relationships include: linkages within and between levels (Berkes, 2002), the inclusion of different paradigms or worldviews in governance (Peters, 2002; Natcher & Davis, 2007), the importance of discourse and language (Clark & Slocombe, 2009), as well as the management of multi-level interactions (Natcher *et al.*, 2005). These four variables are each discussed separately below.

2.4.2.5.1 Cross-level Linkages

In addition to implementing governance with multiple objectives, the ability to include multiple levels of organization is also seen as important for successful CMEG arrangement formation. As suggested by Meek, Lovecraft, Dowsley, & Dale, (2011), meeting multiple objectives, is closely tied to the inclusion of participants from different levels of social organization. According to these authors, this process entails "information collection, deliberation, and decision-making" (Meek *et al.*, 2011, p. 467). Berkes (2002, pp 300) also argues that "Commons management cannot be done only at the local or the national level; it is cross-scale, with the larger scale institutions interfering with or supporting smaller scale ones through a diversity of mechanisms." In doing so the importance of creating space for multiple worldviews may also be important for CMEG arrangement formation.

2.4.2.5.2 Space for Multiple Worldviews

By nature, CMEG arrangements must be capable of including multiple worldviews. This is especially true in cross-cultural governance (i.e. through aboriginal partnerships). As argued by (Peredo & Anderson, 2006 pp 253):

> There are a number of critical discussion points related to indigenous populations, and in turn, their relationship to entrepreneurial [and governance] activities and enterprises. These include, but are not limited to, the pursuit of multiple goals, including social objectives; the notion of collective organization, ownership and outcomes; and a population's association with the land, characteristically leading to a high degree of environmental sensitivity, drawing on traditional knowledge and fostered by a sense of spiritual connection with the land and its resources.

These important features of Aboriginal or other cross-culture/cross-scale relations may require that governance formation accommodate other worldviews during establishment. One important indicator of this is the amount of meaningful influence participants have in decision-making processes. This may be demonstrated by the inclusion of knowledge, worldviews, and institutions, of participants and authorities (Peters, 2002). As Natcher and Davis (2007, p. 271) see it this may be seen as the presence of specific "cultural ideals" or values and principles in such processes.

One example of this concept is described by Clark and Slocombe (2009) with reference to different approaches to wildlife management. These authors describe two management worldviews, one of which, places emphasis on a sustained yield, and another which places value in ecosystem resilience. It should also be mentioned that these differences may be difficult to address as they are potentially hidden within the language and discourse of governance (Clark and Slocombe, 2009).

2.4.2.5.3. Discourse and Language

The discourse and language which characterize governance arrangement formation may affect power-sharing in CMEG. As an example of this Clark and Slocombe (2009) recommend that multi-cultural discourses entail the translation of different languages in order to facilitate understanding between participants. This could also be extended to include communication between others such as academics, managers, and the public. It is in addressing topics such as this that management may have a role to play in governance formation.

2.4.2.5.4 Managing Multi-level Interactions

Environmental governance literature has addressed the potential importance of managing interactions between participants in collaborative governance. This is thought to be important normatively, for equitable governance, and practically, where unaddressed cultural distances between levels of organization may actually undermine collaboration (Natcher *et al.*, 2005; Clark and Slocombe, 2009). Examples of this concept have been given by Richard and Pike (1993) who have suggested that in co-operative arrangements, early involvement and contact should take place between participants so that they are fully included in the process.

As this framework suggests, there are numerous potential variables and specific conditions which may contribute to successful CMEG formation. Attention to goals and objectives, legislation, policy, and political support, human and financial resources, participant roles and responsibilities, and relationships and processes, may help to better understand this process by putting CMEG formation in its proper context. The methods which will be used to test this framework are discussed in the following chapter.

CHAPTER 3: METHODS

3.1 Introduction

This chapter discusses methodological aspects of this thesis including: practical and philosophical approaches, the research rationale, methods, and data collection and analysis strategies. In addition to these aspects, it discusses limitations of the chosen research strategies and data sources. The research employs deductive and inductive approaches to understanding CMEG formation, within which an interpretive position was taken by the researcher. Ethical considerations which were of importance to this thesis are also discussed. The research attempts to understand the important historical context within which governance formation has been embedded and to test a proposed framework for understanding multi-level environmental governance arrangement formation. The data include: primary documents and interviews to which temporal, organizational, and thematic analyses are employed as research strategies. One key tool which was used to organize the data, as well as to aid in the thematic analysis was ATLAS.ti v.6.2. These aspects of the thesis are discussed below.

3.2 Philosophical Approaches

This thesis uses a mix of deductive and inductive approaches to exploring multi-level environmental governance. The research approach is considered deductive because it presents a framework of variables which are informed by existing literature (Creswell, 2009). However, it also uses an inductive approach by using observations about collaborative and multi-level environmental governance to refine the framework, and therefore makes generalizations (Creswell, 2009). The research is considered to be interpretive because it relies on both the researcher and research participants to provide meaning to the concepts under study (Creswell,

2009). A result of taking an interpretive approach has been the ongoing refinement of concepts and definitions under study throughout the research process.

3.3 Rationale: Situation of Research in the Literature

The research strategy used in this thesis aims to identify the most important elements influencing collaborative and multi-level environmental governance arrangement formation, and to illustrate the process of CMEG formation. Berkes (2006, p. 8) has argued that "[i]f community-based conservation in a multi-level world is about governance that starts from the ground up but involves multi-level interactions, then it needs to be analysed with attention to the ways in which such conservation originates and gets organised, the partnerships involved, and the linkages that connect the local-level to a multiplicity of other levels." As observed by Armitage (2008), complex governance that links local, regional, and national levels should be viewed in light of several aspects relating to process and structure including: design principles, historical context, and policy narratives. In doing so, research methods which attempt to generate data about "the role of power, scale and levels of organization, knowledge valuation, the positioning of social actors and social constructions of nature" should be employed (Armitage, 2008, p. 7). This research has been approached with these goals.

3.4 Research Setting

Three main components of the ICI can be identified. The first is the NWA which has now been established. The second is a Biosphere Reserve which was being pursued alongside the NWA for a number of years. The third is a potential coastal management area which has only been hinted at in some documents and literature. Each of these arrangements has the potential to

exemplify CMEG because of past and ongoing collaboration between, local and non-local institutions including: Inuit organizations, government agencies, and non-government agencies, as well as environmental governance reforms and frameworks at play in the case study (Chapter 4).

3.5 Research Ethics and Relationships

This research was conducted with the input and approval of several organizations including: the Ittaq Heritage and Research Committee of Clyde River, The Canadian Biosphere Reserves Association, the Nunavut Research Institute, and the University of Saskatchewan Behavioural Research Ethics Board. These research relationships have influenced the research in several ways which are outlined below.

The Ittaq Heritage and Research Committee contributed to the framing of the research by suggesting that it be explicitly differentiated from other similar research, accessible, and beneficial to residents. The Ilisaqsivik Society, an umbrella community organization, also acted as a liaison between local community members, translators, and research participants in Clyde River. The Ilisaqsivik Society also helped to steer benefits of the research towards the local level by suggesting beneficial research products, such as a list of references. The Nunavut Research Institute reiterated the importance of having the research framed in a way that was accessible to those living in Nunavut, whereas the University of Saskatchewan Behavioural Research Ethics Board, ensured that the research conformed to the relevant Tri-council Policy Statement for research involving humans.

3.6 Methods

The primary method used for this thesis was to build a case study using content analysis of multiple sources. This strategy was chosen so as to be able to focus on the processes/functions, governance structures, and thematic variables, within the case study. The content analysis was conducted so as to provide a temporal and organizational analysis of the case study (Chapter 4), as well as to test the fit of the proposed framework of conditions (Chapter 2) to the case study (Chapter 5). The case study, thematic analysis, tools used, and data, are discussed in further detail below, including pertinent limitations of these different aspects.

3.6.1 Case Study

The case study approach is seen as being appropriate for this research because it allows the researcher to investigate specific questions about contemporary place-based social phenomena using multiple sources of evidence (Yin, 2009). These sources of evidence may include: interviews, documents, and notes from site visits. Furthermore, as Yin (2009) observed, the case study can allow a researcher to investigate a broad ranging topic which has important and complex temporal and organizational parameters from the grounded perspective of one or more specific places. It also allows the researcher to ask 'how' and 'why' questions about their research topic. While the case study is not well-suited towards generalization to a population, it is useful for assessing the fit of a framework or theory to a specific case. The construction of the case study can also facilitate temporal, spatial, and thematic analyses of data for comparison with other case studies (Leo & August, 2009). With regards to the potentially fuzzy line between context and the phenomena of interest, the case study is cited as an appropriate method for assessing guiding theories because it does not attempt to isolate variables (Yin, 2009).

Some limitations of this research method may also be identified. These stem from the contextually specific nature of a single case, subsequent inappropriateness for generalization to a population, resource intensiveness, as well as the biases which are inevitably introduced by the researcher. In other words, researchers may knowingly or unknowingly introduce bias into a case study based on preconceived hypotheses, and by subsequently including and omitting certain data (Yin, 2009). According to Yin, case studies are not appropriate for broad generalizations due to the importance of case specific context. With these limitations noted, the case study has been used based on its suitability for describing patterns over time by addressing temporal, organizational, and thematic variables. The specific research tools used to conduct this case study are discussed below.

3.6.2. Content Analysis

The term content analysis broadly refers to a process of analyzing a body of text or other media in order to infer meaning, or to test a hypothesis (Babbie, 2010). According to Babbie (2010), content analysis is suitable for the study of words concepts and themes, most commonly found in text. Thematic analysis of content is a very popular and important method of analyzing data which allows for the recognition of themes or patters which are informed by researcher and participant narratives (Braun and Clarke, 2006). Content analysis is used in this research to contribute to temporal, organizational, and thematic analyses. It is therefore used to infer the sequence and nature of specific events (or processes) associated with both the literature review and the case study (Chapter 4). It is also used to thematically apply the CMEG framework to the case study (Chapter 5).

Content analysis is considered advantageous because it is: relatively unobtrusive, inexpensive, and subject to minor temporal constraints. This method is seen as being unobtrusive because it does not require direct communication between the researcher and those involved in the data generation (Babbie, 2010). It is also relatively inexpensive because the researcher usually does not have to travel to the field. Another advantage is the lack of temporal constraints which may be placed on the data. Strengths of thematic analysis include: its accessibility for qualitative researchers, compatibility with different theoretical approaches to analysis, and flexibility in application (Braun and Clarke, 2006). As these researchers note, this method is also not embedded within one specific theory making it appropriate for some interdisciplinary research. It may also be applied inductively, deductively, or as a combination of the two. It is therefore suited towards answering different types of research questions. Like any, this method is not without some limitations. Thematic content analysis is also subject to several important limitations which should be recognised.

Limitations of content analysis tend to stem from the potential for a lack of context surrounding data which may help the researcher understand conditions under which the data sources were created. Additionally, the credibility of the sources in representing different interest may be called into question, one example of this being potential biases associated with textual records. Bryman (2004) has argued that meaning can be lost or misinterpreted when documents are analysed outside of the original context in which they were produced. On top of this, the researcher introduces his/her own bias through the interpretation process. Bryman (2004) noted that the documents themselves may have more or less credibility depending on their completeness, and representation of different perspectives of interest to the research. These

issues may be of much concern where cultural differences, such as language or worldviews come into play.

Other limitations identified by Braun and Clarke (2006) tend to relate to the improper application of the method. These may arise due to the methods broad applicability; relatively low credibility due to poor understanding of the method among researchers and others; and potential for identifying only anecdotal evidence. These being noted, this method has been chosen for its appropriateness for the research questions and data sources being employed in this research project.

3.6.2.1 Temporal and Organizational Analysis

In order to conduct the temporal and organizational analyses data were pulled from the data set which was stored within ATLAS.ti v.6.2, and reorganized temporally and organizationally in an external table. Specific to the temporal and organizational analysis, themes of interest sought to identify presence or absence of governance participants and levels of organization over time. For example, attention was paid to local, regional, territorial, and national participants who represented governments, Inuit organizations, and NGOs. The information was organized in a separate table in order to visualize governance processes over time. These data were also supplemented with interview data and theoretical knowledge in order to describe governance formation processes (Chapter 4).

3.6.2.2 Thematic Analysis

In this research, content analysis was also used to conduct a thematic analysis. The strategy used for this CMEG framework analysis first identified the presence of variables which,

according to literature, might influence CMEG arrangement formation. Secondly, data were reviewed and pre-determined codes were attached to passages of text using the ATLAS.ti v.6.2 software. The passages of text were typically sentences or paragraphs which represented the themes of interest. The actual names of the codes that were used aligned with the framework developed through the literature review (Table 3). In addition to this, additional codes were developed based on insight from the data, and subsequently applied across the data set using ATLAS.ti v.6.2 software (see Appendix B). It should be noted that several versions of the framework were constructed throughout this process, with changes based on insight from the data, literature, and field work. For example, an emergent theme may have been added to the framework and subsequently removed after being tested across the data.

The computer software itself was used primarily to compile the numerous data sources for review, and to electronically identify the passages which represented themes and features of interest. It was also used to search the data set for key words, themes, or variables. The primary importance of the software was to organize and recall data. As such, many functions, such as visual representation of data, were not employed.

These methods have allowed the thesis to explore the fit of the CMEG framework of conditions (Chapter 2) within the context of the case study. Thematic analysis is therefore seen as complementing the case study method by allowing for systematic identification of pre-identified and emergent themes in qualitative data (Braun and Clarke, 2006).

3.6.3 Data

In order to describe the function and characterize structures of governance surrounding the ICI, data were collected which related to the history of the environmental governance

initiative. Sources which were used included: site and telephone interviews and documents associated with conservation planning, the NWA establishment, the biosphere reserve initiative, and conservation governance in Nunavut. These data sources are described below with mention of their limitations.

3.6.3.1 Site Interviews

Six semi-structured interviews were conducted face to face in Clyde River, and lasted between 30 and 90 minutes. Two interviews employed the use of an interpreter, and four were conducted in English. Five of those were analyzed. All interviews were recorded using an electronic recorder. In one interview, the recorder shut off at about 5 minutes before end of the interview, and some of the conservation was lost. The field interviews were transcribed by the researcher. Of these, two were returned to interviewees upon request for review and editing. Upon request, one transcript was translated into Inuktitut for review. One of the interviewees did not return a transcript release form, and therefore the information from that interview was not included in any reporting of the results. The location of the interview was determined by the interviewee and included places of employment, homes, and the local hotel lobby. Participants included past or present members of the Igalirtuuq Steering Committee, the Hunters and Trappers Organization, the regional Inuit organization, interested observers, and others. Local participants were given an honorarium and small gift in appreciation of their insight. Questions that were asked sought to determine: goals, processes, challenges, and governance formations processes, surrounding the conservation initiative (see Appendix A).

Limitations associated with this method of data collection may include: potential misunderstandings due to language and cultural differences, potential interviewee error in

recalling events, and the potential for the researcher to influence the answers of interviewees. It is recognised that these may come to play in the data analysis, and that steps have been taken to try to minimise the effects of these limitations. These include: participant review of data and the use of multiple types of evidence where possible.

3.6.3.2 Telephone Interviews

Eight interviews were conducted over the telephone with non-local conservation initiative participants. This method was chosen due to the geographical range of the interviewees. This group of participants included interviewees from the Northwest Territories, British Columbia, Alberta, Ontario, and Prince Edward Island. All of the interviews, except for one, were recorded for transcription. These interviews lasted from 30 to 90 minutes, and were conducted in English. Interviewees included government employees, members of Canadian biosphere reserve organizations, consultants, environmental non-government organization representatives, and an Inuit organization representative. Interviews were transcribed by the researcher and five transcripts were returned to interviewees upon request for review and editing. It should be noted that non-local participants were not provided any honoraria or gifts for participation.

Limitations are inherent to this method of data collection. These include: the lack of face-to-face contact, the potential for interviewee error in recalling events, and the potential for the researcher to inadvertently influence the answers to questions.

3.6.3.3 Documents

Numerous types of secondary data were used in this research including academic and grey literature. Many of these sources were archived documents relating directly to the ICI

including: draft and final conservation proposals, draft management plans, draft nomination documents, and minutes from various meetings. In addition to these specific documents: discussion papers, government and non-government reports, and relevant published literature were used in the organizational and thematic analyses. Other publicly available documents that were used include minutes and reports from the Nunavut Wildlife Co-management Board. These data sources are discussed in further detail below.

Visits were made to the Laurier Library at the Wilfred Laurier University Archives to assess and review material relating to the case study. Documents reviewed were primarily found in the George Francis, Fred Roots and Jim Birtch Fonds. These three individuals were highly involved in furthering the biosphere reserve program in Canada, and kept highly detailed files pertaining to this activity, some of which date back to the 1970s. The files consulted pertained to the Man and Biosphere program in Canada, including activity of the Biosphere Reserve Working Group, and the Northern Science Network. In addition to this documentation, a research agreement with the Canadian Biosphere Reserves Association allowed a review of relevant files held by the Association, many of which are now also in the process of being archived at the Laurier Library. Some documents reviewed, including: Igalirtuuq: A Conservation Proposal for Bowhead Whales at Isabella Bay, Baffin Island, NWT (Community of Clyde River 1990),Whales Beyond Our Knowledge (Clyde River Hunters and Trappers Association, 1987 in Nickels, 1992), minutes from NWMB meetings, and Nunavut implementation reports were already digitised and publicly available on the Internet. In addition to this, some documents relating to the ICI were reviewed while visiting Clyde River. Over 20 documents were analyzed for this case study, and countless documents were reviewed.

The advantages of using these sources include: the ability to capture aspects of the governance arrangement formation process as they were occurring at the time, the ability to review records documenting decision-making over time, and the ability to compare different versions of documents. These sources were most commonly digitised for inclusion in analyses. Potential limitations of this data source may include: an overrepresentation of the written perspective, issues of translation between languages, potential for incomplete documentation, and the potential for interpretation outside of the original context in which the document was produced.

CHAPTER 4: ORGANIZATIONAL AND TEMPORAL ANALYSES

4.1 Introduction

The following analyses are informed by the importance of accounting for historical economic and socio-political contexts, of environmental governance arrangement formation. In doing so, they seek to identify process and structures underway in CMEG arrangement formation. Accordingly, the first section of this chapter describes various levels of biophysical and social organization including the: site, local, regional, territorial, national, international, and multi-level, levels of governance. The second analysis describes characteristic approaches to governance formation surrounding Isabella Bay over time which range from self-governance to the present co-management arrangement. These results are based on the temporal and organizational analysis of data using both theoretical insight and empirical evidence. The empirical evidence was generated using ATLAS.ti v.6.2 as described in Chapter 3.

4.2 Organizational Analysis: Organizations and Government Agencies Involved in Collaborative Multi-level Environmental Governance (CMEG) Formation

In order to better understand the CMEG formation process, and the variables which contribute to its success, it is important to identify the key participants over time. Key levels of social organization identified within this case study include: site, local, regional, territorial, national, and international levels. The site level refers to Isabella Bay; the local level includes Clyde River and the land and waters that are used by Clyde Inuit; the regional level includes the Qikiqtani Region of Nunavut; the territorial level includes the territory of Nunavut (formerly a portion of the Northwest Territories); the national level includes Canada; and the international includes the world (Table 4). It should be noted that some institutions transcend one or more

levels. Additionally, more emphasis has been placed on providing context at the site and local levels in order to reflect the relative importance of place to environmental governance.

Table 4 Key Levels of Organization and Institutions in the Analysis of the ICI

Level of Organization	Institution(s)
Site-Isabella Bay	Isabella Bay Steering Committee
Local-Clyde River	Hunters and Trappers
Regional	Qikiqtani Inuit Association (QIA) Qikiktaaluk Wildlife Board (QWB)
Territorial	Government of Nunavut (GN) Nunavut Tunngavik Incorporated (NTI)
National	Department of Fisheries and Oceans (DFO) Environment Canada (EC) Indian and Northern Affairs Canada (INAC) Nunavut Institutes of Public Government (IPG) Canada/MAB WWF Canada
International	UNESCO MAB
Multi-level	Area Co-Management Committee: HTA, QIA, EC
	Institutions of Public Governance: QWB, GN, NTI, DFO, EC, INAC

4.2.1 Site Level: Isabella Bay

Isabella Bay (aka Igalirtuuq or Igaliqtuuq) is an Arctic marine area located nearly 120km southeast of Clyde River on coastal Baffin Island (Figure 2). The site is in the outer portion of McBeth fjord and has relatively shallow depths of less than 250m (Community of Clyde River, 1990). Isabella Bay, which takes its English name from the commercial whaling era (Nickels, 1992), is of significance for various wildlife species including: bowhead whale, seal, narwhal, walrus, polar bear, and others (Finley, 1990; Kemp, 1976). The site is of particular significance to marine mammals, and research shows that that the underwater topography at Isabella Bay

contributes to the site's importance as a late summer area for bowhead whales (Community of Clyde River, 1990; Finley, 1990).

Figure 2 The Proposed Ninginganiq National Wildlife Area

Source: World Wildlife Fund (2010)

While no one appears to live permanently at Isabella Bay presently, it remains of much importance to local Inuit (Community of Clyde River, 1990. Draft management plans for the (then) Igalirtuuq NWA refer to the importance of Inuit camps at Isabella Bay and nearby Cape Raper before the arrival of Europeans (Canadian Wildlife Service, 1996a). Research by Wenzel (2008) shows that Isabella Bay was the site of an important Inuit winter village called Tilavunuk or Arctic Harbour from 1930-1941. As one interviewee shared, one of the main purposes of the ICI has been to "get the tourists to see that we have been here outside our community" (Interviewee #5, personal communication, 2010). Isabella Bay also contains natural resources such as whalebone (Community of Clyde River, 1990). Further demonstrating the site's

importance to the Inuit, portions of an island located within Isabella Bay, as well as some surrounding lands, have been designated as Inuit Owned Land (Nunavut Tunngavik Incorporated, 2010). A field station has also been erected on the shore of Isabella Bay (N.E.M.O., 2003). Evidence suggests that in the past, hunting has been of particular socio-economic importance at Isabella Bay.

Isabella Bay has provided hunting opportunities for Inuit in the past, and continues to do so. According to research by Finley, Evans, & Davis (1984), Isabella Bay comprises Clyde River resident hunting territory, and has been lived at as recently as 1982. According to Wenzel's (2008) research, Isabella Bay was also used for spring hunting by Inuit of Clyde River, as recently as the 1960s. Research by Kemp (1976), suggested that between 1923 and 1954, Isabella Bay was an important hunting area within the Clyde River Region and that seal, walrus, narwhal, and polar bear hunting took place at the Isabella Bay site, along with fishing and fox trapping which were carried out nearby. Bowhead whales, which are seasonally abundant at Isabella Bay, have also been hunted for food by the Inuit for hundreds of years (Freeman, Bogolovskaya, Caulfield, Krupnik, & Stevenson, 1998). Kemp (1976) suggested that from 1954 to 1974, Isabella Bay was hunted, trapped, and fished less than it had been earlier. This claim was also supported by one local interviewee (Interviewee #1, personal communication, 2010).

With this being said, Isabella Bay has more recently been seen as a potential site for conservation and tourism opportunities. Evidence suggests that there has been interest from locals as well as outsiders, ranging from small-scale local outfitting type business, to the proposed establishment of an airstrip (Community of Clyde River, 1990; Hackman, 1993). The main proponents of conservation and tourism at the site have been residents of Clyde River through the Isabella Bay Steering Committee. This sub group of the Clyde River Hunters and

Trappers Association has been concerned primarily with the establishment of a conservation designation at Isabella Bay.

4.2.2 Local Level: The Clyde Settlement and its Relation to Isabella Bay

The Clyde River settlement is located 120 km northwest of Isabella Bay at the head of Patricia Bay, a fjord on the Eastern shore of Baffin Island. Clyde River and the surrounding lands and waters are characterised by abundant wildlife, numerous fjords, permafrost, ice caps, and the adjacent sea (Nunavut Planning Commission, 2011).

Clyde River is a relatively new settlement of over 90% Inuit (Nunavut Planning Commission, 2011). Residents who settled in Clyde River came from throughout the surrounding region, as well as from other parts of Nunavut (Wenzel, 1995). Presently there are thought to be between 800 and 900 residents in the hamlet (Nunavut Planning Commission, 2011) which was incorporated in 1978 (Qikiqtani Truth Comission, 2011). According to Wenzel (2008), Clyde River was settled between the 1940s and the 1960s. In 1923 the Hudson's Bay Company established a trading post near the present site of Clyde River, and by 1951, several families lived at the Clyde River site, while others remained spread out throughout the region (Wenzel, 1995). In 1960, a school was delivered to Clyde River, and the town was moved to the adjacent side of the bay in the early 1970s (Qikiqtani Truth Comission, 2010). Housing was slowly developed throughout the 1960s and 1970s. Wenzel (1995) describes the importance of local institutions, such as hunting networks in historical and modern socio-economic context. Several other community level institutions such as hunters and trappers associations have also been formed since settlement, which are of importance to environmental governance.

In the past, some of the Clyde River Inuit gained employment from commercial whaling (Finley *et al*., 1984). Isabella Bay itself was a commercial whaling site around the turn of the century (Nickels, 1992). Subsequently, archaeological sites from this activity can be found at Isabella Bay (Community of Clyde River, 1990). As one interviewee from Clyde River confirmed "there are historical things still there, back in the 1800s that are not damaged" (Interviewee #2, personal communication, 2010). Another interviewee from Clyde River recalled that "[b]ack in the old days there used to be bowhead whale hunters and all that land there was a lot of sites" (Interviewee #4, personal communication, 2010). The Clyde River Region is also significant for hunting and trapping.

Hunting, fishing, and trapping have remained very important to the economy of Clyde River (Wenzel, 1995), even following various influences from outside government and market forces, such as the collapse of markets for wildlife products (Nickels, 1992). Important hunting, fishing, and trapping activities in the area include: polar bear, caribou, seal, arctic char, and, in the past also included walrus and bowhead whale (Wenzel, 2008). With reference to the continued use of Isabella Bay for these purposes, one interviewee from Clyde River pointed out that "if it happens to be that someday, or sometime when we want to feed our dogs, or when we actually want to eat country food from that area, yes we can hunt, but not bowhead whales" (Interviewee #1, personal communication, 2010). In addition to this the site is noted as being of importance for gathering whalebone which may be used in carvings (Finley, Evans, & Davis, 1983).

The conservation and tourism opportunities associated with Isabella Bay can be traced primarily to the work of the Clyde River Hunters and Trappers Association. This organization was incorporated in 1973, in order to help members "get hunting, fishing, trapping, and camping

supplies and equipment" and to "represent the general interests of its members in matters dealing with wildlife, environment, and consultation with the territorial government regarding wildlife policy" (Hackman, 1993; Clyde River Hunters and Trappers Association, 1987 pp. 1 in Nickels, 1992). As one interviewee from Clyde River shared "our parents were the main people who knew about that area and liked for other people to see" both "the bowhead whale…as well as other things the land offers" (Interviewee #2, personal communication, 2010).

More recently, the Hunters and Trappers Association in Clyde River appears to have formed a corporate wing called Naluaqtaliq which "acts as a community representative on all matters concerning Isabella Bay" (N.E.M.O., 2003). At the community level, another important institution is the Community Lands and Resources Committee which was established through the NLP in order to manage Inuit Owned Lands at the local level (Nunavut Land Use Planning Commission, 2000).

4.2.3 Regional Level: Regional Inuit Organizations

Two important organizations at the regional level are the Qikiqtani Inuit Association (formerly the Baffin Regional Inuit Association or BRIA), and the Qikiqtaaluk Wildlife Board. These are both considered to be Inuit organizations.

4.2.3.1 Qikiqtani Inuit Association

The Baffin Region Inuit Association (BRIA) was formed in 1975 to represent the interests of Inuit in the Baffin region (Qikiqtani Inuit Association, 2007). By the 1990s, BRIA were becoming involved in informal negotiations and decision-making around the Igalirtuuq Conservation Proposal (Interviewee #12, personal communication, 2010). Following the

negotiation of the Nunavut Final Agreement BRIA first became a Designated Inuit Organization under the Nunavut Final Agreement, formally participating in decision-making, and in 1997, was renamed the Qikiqtani Inuit Association (QIA) (Qikiqtani Inuit Association, 2007). QIA is now a land claims and community organization representing the interests of Inuit in the Region (Qikiqtani Inuit Association, 2007). QIA has had direct input into the Impact Benefit Agreement which frames NWA establishment in Nunavut, and are also involved in the implementation process.

4.3.2.2 Qikiqtaaluk Wildlife Board

The Qikiqtani Region is also represented by the Qikiqtaaluk Wildlife Board, a regional wildlife board made up of representatives of hunters and trappers organizations from throughout the Qikiqtani region. These include: Clyde River, nearby Qikiqtarjuaq, and Pond Inlet. The goals of this organization are to "regulate harvesting practices and techniques…[the] allocation and enforcement of regional basic needs… among HTOs…[and to] to any person or body other than an HTO…[as well as] the management of harvesting among the members of HTO's in the region (Nunavut Inuit Wildlife Secretariat, n.d.). Evidence indicates that Qikiqtarjuaq (formerly Broughton Island), the nearest community to the south of Clyde River, may also have hunting and transportation interests in the region surrounding Isabella Bay, as these are mentioned in the Igalirtuuq Conservation Plan (Community of Clyde River, 1990), as well as meetings about the conservation planning (e.g. Mills, 1992). This implies an opportunity for regional level governance in the ICI.

4. 2.4 Territorial Level: Territorial Governments, Inuit Organizations

Three key institutions at the territorial level are the Government of Nunavut, Nunavut Tunngavik Incorporated, and the Nunavut Inuit Wildlife Secretariat (NIWS). Of additional importance at the territorial level are Nunavut IPGs which are discussed under multi-level institutions (see 4.3.2. Institutions of Public Government).

4.2.4.1 Territorial Government

At the territorial level, it is important to recognise the legacy of the government of the Northwest Territories. For example, Corless (1999) argues that following the conclusion of the Berger Commission in the late 1970s, the government of the Northwest Territories shifted policy towards community-based planning, whereby the roles of local and regional interests were considerably heightened in the planning process. Despite this, according to some, another subsequent shift towards territorial, regional, and local devolution in the early 1990s accompanied by relatively few resources may have done little to address existing inequities between communities (Corless, 1999). Presently, it is known that the government of Nunavut faces governing capacity issues and remains dependent on transfer payments (Mayer, 2007; Mifflin, 2009). One analyst Mifflin (2009) has criticized the relative lack of power and access to resources afforded to the government of Nunavut relative to other governing bodies in Nunavut. The government of Nunavut has a relatively insignificant role in marine conservation in Nunavut (Daoust *et al*., 2010).

4.2.4.2 Nunavut Tunngavik Incorporated

In contrast to the government of Nunavut, Nunavut Tunngavik Incorporated (NTI) established in 1993 gained considerable power through the NLP. NTI "ensures that promises made under the Nunavut Land Claims Agreement (NCLA) are carried out...coordinates and manages Inuit responsibilities" and "ensures federal and territorial governments" do the same (Nunavut Tunngavik Incorporated n.p., 2011). NTI now appears to have a significant role in environmental governance in Nunavut. Evidence of this can be seen in its role in negotiating IBAs as well as its role in distributing financial capital throughout Nunavut (Mifflin, 2009).

4.2.4.3 Nunavut Inuit Wildlife Secretariat (NIWS)

The NIWS is a centralized secretariat organization for the three regional wildlife boards and hunters and trappers associations in Nunavut. This institution was created as a response to a perceived need for coordination and standardization across the territory (Nunavut Inuit Wildlife Secretariat, n.d.). This organization is seen as filing a facilitation role for these organizations, especially with regards to financial and human resources. In addition to this, they liaise between Inuit and other government organizations and agencies.

4.2.5 National Level: Federal Government Agencies, National Biosphere Reserve Organizations and Conservation Organizations

Participants in the ICI at the national level include: Federal Government agencies, Canada/Man and Biosphere Committee and the Canadian Biosphere Reserves Association, and World Wildlife Fund Canada. Each of these participants is discussed below.

4.2.5.1 Federal Government Agencies

The federal government retains jurisdiction over conservation in Nunavut because full devolution of powers to the territorial level has not yet taken place (Daoust *et al*., 2010). However, federal government agencies are subject to developments through the NLP which stipulate formal collaborative approaches to much environmental governance, as well as the negotiation of Impact Benefit Agreements for some development undertakings such as conservation and resource extraction (Indian Affairs & Northern Development and Tunngavik Federation of Nunavut, 1993). With this being said, Fenge and Quassa (2009, pp. 84) suggest that the full implementation of the NLP has not yet been fully achieved, and that federal agencies have yet to hold up their end of the agreement on many "softer obligations". Regarding the ICI, federal government agencies of importance appear to include: Fisheries and Oceans Canada (DFO aka Department of Fisheries and Oceans), Indian and Northern Affairs Canada (INAC aka the Department of Indian Affairs and Northern Development or DIAND), and Environment Canada (aka the Department of the Environment including the Canadian Wildlife Service) (CWS). Each of these is discussed briefly below in relation to the case study.

The DFO are the acknowledged leader in marine habitat and species protection in Canada (Welch, 1995). It is not until recently that the DFO has established any marine conservation areas (Interviewee # 12, personal communication, 2010). Rather, the DFO has been seen as more inclined towards taking a leadership role in the conservation of specific species and the management of established conservation areas (Interviewee #6, personal communication, 2010; Unknown Author, Summary of Meeting, 1993). Nevertheless, over the past two decades, the DFO has been tasked with coordinating marine management responsibilities in Canada through the Oceans Act (1996). It has since developed policy including an Ocean Management Strategy

(2002), and an Oceans Action Plan (2005). They are now seen as the leader in integrated marine management in Canada.

The CWS under Environment Canada has a mandate to protect the habitat of specific species, and is considered to be one of several lead agencies in the establishment of conservation areas in Canada (Daoust *et al*., 2010). These include: Migratory Bird Sanctuaries, and Marine (and Terrestrial) NWAs. The CWS is seen as the leading government agency in the establishment of the NWA in the ICI, including the coordination of other governments and interested organizations. It is the CWS who have engaged other government agencies and organizations in the ICI.

INAC's role in the ICI has entailed financial coordination. As recalled by one federal government employee "Indian and Northern Affairs in the early days of this initiative, they were involved. They used to come to meetings and provide some financial support to the community" (Interviewee #9, personal communication, 2010). Over time, it appears that they were also responsible for providing federal government agencies with financial mandates to undertake collaborative governance (Interviewee #9, personal communication, 2010). In Canada it is seen as INAC's responsibility to ensure that other government agencies comply to and co-ordinate for land claim agreements (Fenge and Quassa, 2009).

4.2.5.2 Canada Man and Biosphere Committee (Canada/MAB)/Canadian Biosphere Reserves Association (CBRA)

Of importance to early ICI planning, was the Canadian Man and Biosphere Reserve Committee, as well as the Biosphere Reserve Working Group, a subcommittee of Canada/MAB. As noted by Francis (2004, pp. 6) the "Canada/MAB committee was created in 1974 and was

revised from time-to-time over the years. Support for it was gradually scaled back and this support ceased altogether in 1992." Interests of the Working Group included developing a system of biosphere reserves to foster goals such as biodiversity conservation, research networking, sustainable resource use, and education and tourism (Francis, 2004). The working group continued throughout the 1990s and in 1996 it "together with representatives from the existing biosphere reserves, formed the Canadian Biosphere Reserves Association to enhance the scope of support and program activities beyond what was possible under its prior arrangements. CBRA was incorporated in 1997 and received official charitable status in 1998" (Canadian Biosphere Reserves Association, 2011). It is the Canada/MAB committee that is responsible for the nomination of Canadian biosphere reserves to the international level (UNESCO MAB).

4.2.5.3 World Wildlife Fund (WWF) Canada

Through the early facilitation of planning, the provision of funding, and ongoing advocacy work, WWF Canada helped to develop the Igalirtuuq proposal, and to maintain awareness over the years (Community of Clyde River, 1990; Hackman, 1993; Nunavut Wildlife Management Board, 1997). WWF Canada are seen as been active in cooperative research and planning as seen in the ICI and other bowhead whale conservation planning (Moshenko *et al*., 2003).

4.2.6 International Level: International Environmental Programs

At the international level, biophysical and social conditions such as biodiversity loss, concern for human rights, and climate change have led to the creation of institutions and

programs which cross national boundaries. Examples which are of importance to this case study include the international WWF and the UNESCO MAB Program.

The World Wildlife Fund, through their Whales Beneath the Ice research program, drew international attention to the importance of Isabella Bay and other such places for whales and northern communities (World Wildlife Fund Canada, 1986). It was also characterized as being collaborative by involving communities, governments, and researchers (World Wildlife Fund Canada, 1986). The UNESCO Man and biosphere Program, which followed the identification of sites of biological significance through the International Biological Program, has since attempted to address human activity and biodiversity concerns globally (Francis, 2004). One key feature of this has been the establishment of a network of biosphere reserves (Francis, 2004).

According to interviews with those involved with the programme in Canada, the primary importance of the UNESCO MAB program to this case study would have been to provide a framework through which the ICI could be considered in terms of opportunities for: international recognition, having various zones of activity, networking opportunities, sustainability, and educational (Interviewee #6, personal communication, 2010; Interviewee #7, personal communication, 2010; and Interviewee #8, personal communication, 2010). The biosphere reserve concept may therefore exemplify potential for collaborative and multi-level institutions in environmental governance.

4.2.7 Multi-level Institutions

In this case study, key institutions comprised of participants from multiple levels which don't quite fit into a conventional discussion of governance levels. These institutions are

products of the NLP, and include Area Co-management Committees and Institutes of Public Government (IPGs) (Table 4).

4.2.7.1 Area Co-management Committees

Area co-management committees appear to be a direct result of the Inuit IBA process for Migratory Bird Sanctuaries and National Wildlife Areas in Nunavut. Within the context of the ICI, and as negotiated by IBA participants, they consist of representatives of the federal government, Community Lands and Resources Committee (CLARC) appointees, and others such as members of youth or women's groups in the affected community (Environment Canada, Nunavut Tunngavik Incorporated, The Kitikmeot Inuit Association, The Kavalliq Inuit Association, The Qikiqtani Inuit Association, & The Nangmautaq Hunters and Trappers Association, 2008). In the case of the ICI, an ad-hoc co-management committee also appears to have been active prior to the establishment of a formal ACMC (Indian and Northern Affairs Canada, 1996). It is the responsibility of the ACMC to plan and to undertake management decision-making for the NNWA (Environment Canada, *et al*., 2008). This activity will then be approved by the NWMB, and the responsible federal government minister.

4.2.7.2 Institutions of Public Government

One significant outcome of the NLP was the establishment of several institutions of public government (IPGs). These institutions attempt to address the special arrangement between Inuit, the government of Nunavut, the Canadian state, and accordingly consist of members from Inuit organizations, as well as government agencies (White, 2002). The most relevant institutions

of public governance for this case study are the Nunavut National Wildlife Board (NWMB), and the Nunavut Planning Commission which guide conservation planning. Each of these institutions has supported the ICI. The Planning Commission has done so by including the Wildlife Area and Biosphere Reserve proposal in regional land use plans developed in the 1980s, as well as in the follow-up North Baffin Land Use Plan (2000), and the NWMB was early to approve the boundaries for the proposed NWA and Biosphere Reserve (Nunavut Wildlife Management Board, 1994). The NWMB is also expected to approve management plans, future changes to boundaries, and wildlife management decision-making. With this being said, it should be noted that there have been some recent challenges facing these potentially fragile institutions (Natcher, personal communication, 2012).

Of likely importance to marine conservation is the yet-to-be established Nunavut Marine Council which would be comprised of members of existing institutes of public governance (Daoust *et al*., 2010). It is observed by some that such a development would provide an appropriate counterpoint for leading federal government agencies in furthering marine and ecosystem-based governance in Nunavut (Gillies, 1995).

It should be recognized that while these organizations incorporate national, territorial, and other government representatives, as well as guide, and fund regional and local level organizations such as Regional Inuit Organizations and Hunters and Trappers Organizations. It is the participant governments that carry out the decisions of the boards (Berger, 2005). With this being said, ultimate authority over decision-making rests in the hands of the relevant Federal government minister. This being noted, these boards are seen as being significant in extending decision-making powers beyond federal government agencies (White, 2002).

4.3 Temporal Governance Formation Analysis: Multi-level Environmental Governance Formation

Having identified key levels of organization and participants in the ICI, this section turns to characterizing the various approaches to the formation of CMEG. In addition to better understanding the history and processes of environmental governance formation, it is hoped that this analysis will lead to a better understanding of variables which may contribute to the success of CMEG formation (Chapter 5).

The following sections describe five discernible approaches to environmental governance formation surrounding the ICI over time. The five approaches identified include: 1) self-organized (pre-1988); 2) community-based planning (1988-1990); 3) community-based formation (1991-1996), 5) centralized planning (1997-1999); multi-level negotiations (2001-2008), and CMEG (2009-present) (Table 5). Each of these characterizations is presented sequentially, although it should be noted that the timeframes are approximate, as it is difficult to definitively demarcate between the various approaches which comprise the history of the ICI.

Table 5 Summary of Governance Formation Approaches Identified in the ICI

Governance Approach	Timeframe	Key Participants
Self-organized	Prior to 1988	Local residents and Researchers
Community-based planning	1988-1990	WWF Canada, Clyde River Hunters and Trappers Association
Community-based formation	1991-1996	CWS, DFO, INAC, GNWT, Clyde River Hunters and Trappers Association, BRWG
Centralized planning	1997-1999	CWS, NTI, BRWG
Multi-level negotiation	2000-2008	CWS, Clyde River Hunters and Trappers Association, Qikiqtani Inuit Association, Nunavut Tunngavik Inc.
CMEG	2009-Present	ACMC

The self-organized approached describes local-level planning, with participation from non-local researchers and others such as government employees. The second, community-based governance, describes early planning which was facilitated in part by WWF Canada. The third, community-based formation, characterizes implementation which was led by the CWS and involved residents and representatives of other organizations and government agencies. The fourth, centralized planning describes a period of higher-level planning in Nunavut. The fifth, multi-level approach, describes a process which incorporates negotiations between parties at these multiple levels including: the Clyde River HTA, CWS, and NTI.

4.3.1 Self-organized Approach (Prior to 1988)

The period prior to 1988 can be characterized by self-organized planning for the ICI. This may be seen as a response to collaborative research which was undertaken by Finley and others (1984) and funded by the WWF Canada. In addition to this, other contextual factors which likely contributed to the ICI included prevailing government approaches to wildlife management and planning, as well as a need to respond to outside economic influences such as, the decline in markets for wildlife products which had provided cash in a mixed local economy (Nickels, 1992).

It is suggested by (Difrancesico, 1996, pp. 12) that "[t]hroughout the late 19th and early 20th centuries, the federal government's role in the North was mainly regulatory [with] [l]ittle attempt…to manage or use the more remote areas." As an example relating to wildlife, between 1979 and 1982, the DFO banned Inuit subsistence hunting of bowhead whales as a management measure (Finley, 2001). At this time, it was believed that Inuit hunting was one of the likely reasons for the endangered status of the bowhead whale (Gerson & Gerson, 1986). In addition to

this, researchers have noted the importance of outside markets on the Clyde River economy during this time (Nickels, 1992). According to Fenge (1986, n.p.), it was also during this time that land use planning "was criticized bitterly by the territorial governments and northern aboriginal peoples because it perpetuated Ottawa's control of northern resource development and offered northerners no more than advisory roles in the planning process." Meanwhile, communities had been governing their own affairs through numerous formal and informal institutions including: family networks (Wenzel, 1995), local and regional public councils, as well as local and regional Inuit associations (Henderson, 2007).

In the years leading up to the ICI proposal, precedent for collaborative approaches to decision-making had been demonstrated in northern Canada, as exemplified by the Berger Inquiry, and the Lancaster Sound Regional Study, which are both seen as being particularly attentive to the values and knowledge of local people (Bocking 2007; Candian Arctic Resources Committee, 1986). For example, the Lancaster Sound Regional Study revealed that:

> [t]he Inuit had ideas about what they wanted to do. Their approach was cautious and emphasized the regional context of planning. It involved the designation of national parks and biosphere reserves, and the provision of education and training for economic development based on renewable resources, non-renewable resources and tourism. It was a multi-faceted approach to the development of their own region that did not fit neatly into any single government department (Canadian Arctic Resources Committee, 1986, n.p.).

In addition to this, closer to the case at hand, collaborative whale and habitat research was being undertaken in the 1980s which involved Clyde River residents in documenting the

social and ecological importance of Isabella Bay using both scientific and local knowledge (Finley *et al.,* 1984). In addition to this, the 1985 designation of a Kekerten Island NWT whaling station, as a national historic site may have prompted the consideration of Isabella Bay for a similar designation (Parks Canada, 2011).

It is within these contexts that the concept for the ICI likely began to emerge. However, it is difficult to say for certain where exactly the idea first originated. Documents first mention the idea of a conservation area within the context of the collaborative research being undertaken (Finley, n.d.; World Wildlife Fund Canada, 1986). It is claimed by some that the idea came from within Clyde River (Interviewee #1, personal communication, 2010). It is likely that the collaborative Whales Beneath the Ice Program was leveraged by the local Hunter and Trapper Association, because of a brief conservation proposal which followed entitled "Whales Beyond our Knowledge" (Clyde River Hunter and Trapper Association, 1987 in Nickels, 1992). This proposal led to a community-based approach to planning for the ICI between 1988 and 1990.

4.3.2 Community-based Planning (1988-1990)

As a response to the report Whales Beyond Our Knowledge (Clyde River Hunter and Trapper Association, 1987 in Nickels, 1992), World Wildlife Fund Canada provided planning support for a conservation area at Isabella Bay. According to one interviewee the World Wildlife Fund Canada did so by providing someone to "help the HTA in Clyde River sort of flesh this proposal out" and by "developing several options for approaching conservation and development in the area" (Interviewee #11, personal communication, 2010). Interest in the conservation proposal was also expressed by the community at a public meeting in Clyde River, and resulted

in the passing of a motion by the local Council which formally supported the work of the Isabella Bay Steering Committee (Mills, 1992). One interviewee from the WWF Canada recalled the products of this work:

> at the end of the summer we had a written proposal in English and Inuktitut for a defined area, and a kind of basic principles of conservation management for the area that the community supported as a proposal for some type of conservation designation. So with that, we then involved other agencies, organizations, individuals, I can't remember them all by any means, actually then trying to look out to what were the actual options for formal legal protection and with a real interest in some type of regime that in fact gave management responsibility and potential economic benefit, however modest, to people in the region who were supporting it, especially the community of Clyde River. (Interviewee #11, personal communication, 2010)

Nickels (1992; 100) wrote that it was following a 1988 meeting in Clyde River, which was attended by "representatives of the WWF, the territorial government, a consulting marine biologist, various community committees, and 150 local residents" that the "biosphere reserve concept was chosen by the community over other forms of conservation designation." Accordingly, in the Igalirtuuq Conservation Plan which followed (Community of Clyde River, 1990), it was proposed that a biosphere reserve be designated in conjunction with a whale sanctuary, so as to include the marine areas north and south of Isabella Bay, as well as to introduce a governance framework with emphasis on conservation, research, balanced development of resources, community involvement, and learning (Community of Clyde River, 1990). The biosphere reserve model appears to have resonated well at the local scale.

While this planning was facilitated by WWF Canada, it was also emphasised by one local interviewee and others, that the idea of the conservation area "comes from the community, it's not coming from the government or any organization that's outside the community" (Interviewee #1, personal communication, 2010). As further evidence of this, Finley (1990), with participation from Clyde River residents, documented the significance of the site for whales. According to one interviewee who was closely involved in this work, it was one Clyde River resident that had "told Kerry Finley about the location, and…worked with him" elaborating that "it was their [Clyde River residents] traditional knowledge about the bowheads that got Kerry to know that Isabella Bay was so important in the first place" (Interviewee #11, personal communication, 2010). The comprehensive proposal which resulted from this community-NGO exchange addressed multiple themes including: conservation, tourism, sustainability, and research. The community-based approach also appears to have carried over to the first ICI formation approach (1991-1996) which included several government agencies and other organizations such as WWF Canada, the BRWG and BRIA.

4.3.3 Community-based Formation (1991-1996)

In the early 1990s, Igalirtuuq: A Conservation Proposal for Bowhead Whales at Baffin Island, NWT was distributed to government agencies and other relevant organizations. However, the DFO which was tasked with leading the community-based initiative did little to further it. For example, it was recommended by an ad-hoc Isabella Bay working group that a steering committee, as well as a working group, be established by the DFO with representatives from pertinent organizations including Clyde River (Isabella Bay Working Group, 1990). It was also suggested that the DFO meet with the Isabella Bay Steering Committee to show support for the

plan. Despite some initial interest from the DFO, these steps do not appear to have occurred (Isabella Bay Working Group, 1990). Reasons for this may include a lack of experience, and limited financial and legal mandates (Mills, 1992; Interviewee # 6, personal communication, 2010; Interviewee #10, personal communication, 2010).

Based on the proposed biosphere reserve, the Canada/MAB BRWG become involved the ICI. This followed the (1987) the release of the Canada Man and Biosphere Committee National Action Plan for Biosphere Reserves in Canada (Canada MAB, 1987), which proposed the establishment of five biosphere reserves in the northern regions of Canada in order to further a national network. This national network was to feed into an international network of sites for conservation, knowledge generation, and cooperation (Canada MAB, 1987). At this time, the success of the biosphere reserve designation relied on the establishment of a legally protected basis from which the concept could be applied, as well as some basic criteria for management.

Before the (1990) Igalirtuuq proposal was distributed, the proposed biosphere reserve had been granted approval in principle by Canada/MAB, with nomination support provided by the Working Group on Biosphere Reserves (BRWG) (Working Group on Biosphere Reserves, 1990). Documents show that there was considerable interest from Canada/MAB working groups (i.e. the Northern Working Group), as well as potential for collaborations with other organizations such as the federal Canadian Environmental Assessment Council. According to the 1990 Igalirtuuq proposal, the biosphere reserve framework was intended to facilitate the multi-stakeholder process with particular emphasis on the inclusion of the local level in management of the area.

It appears that the biosphere reserve concept was first presented to the Clyde River HTA by WWF Canada in 1988 as a prospective “agreement between Clyde River, the United Nations

Educational, Scientific, and Cultural Organization (UNESCO) and the federal government [whereby a] local management advisory committee is established and the emphasis would be placed on education, training, environmental research and monitoring in the reserve" and entailing a "buffer zone to the identified critical area." it was also suggested by WWF Canada that the biosphere reserve would have to be nominated by the Clyde River HTA (World Wildlife Fund Canada, 1988 in Nickels, 1992).

Following further consultation with various government agencies, it was decided by the CWS and the ISC, that the Canadian Wildlife Act could provide a legal backbone for the conservation initiative. Minutes of a meeting suggest that in 1993 community support affirmed approval for the NWA and biosphere reserve options (Unknown Author, 1993). The CWS, although somewhat inexperienced with marine mammals, was at the time interested in developing a NWA at Isabella Bay. According to an ENGO observer, the CWS was interested in "[d]emonstrating that in fact they could establish a NWA offshore or in near shore areas" (Interviewee #10, personal communication, 2010). It was determined that the CWS did have some of the necessary legal tools to do so, and that the National Wildlife Area and Biosphere Reserve would be pursued simultaneously. Environment Canada then led the planning, negotiations, and funding of the initiative throughout the planning process.

This approach was consistent with the wishes of the community level representatives who wished to have government leadership in the planning and designation of the site (Unknown Author, 1993). As further evidence of this, in the 1990 proposal, while the community expressed wishes to be involved in the management of the site, it was the federal government who were expected to lead the establishment of a legally protected area based on input from the community level (Community of Clyde River, 1990).

At this time, Canada/MAB was waiting for formal protection of the site, as well as the fulfillment of some basic criteria for the nomination of the biosphere reserve, in order to proceed to the international level (Unknown Author, 1993). The planning for the biosphere reserve, including the drafting of a nomination document and management plans, was carried out for some time by members of the Biosphere Reserve Working Group in consultation with the Igalirtuuq Steering Committee and others. For example, the chair of the Igalirtuuq Steering Committee joined the Biosphere Reserve Working Group in 1993 (Canada MAB, 1994), and in 1994, a biosphere reserve representative traveled to Clyde River to draft a biosphere reserve management plan in cooperation with the Isabella Bay Steering Committee (Interviewee #8, personal communication, 2010). A second draft of this management plan was completed in 2000. It was reported in a 1994 Canada MAB newsletter that the Igalirtuuq Steering Committee was looking for support in order to provide a coordinator for the biosphere reserve proposal (Canada MAB, 1994). During this time, the designation process for biosphere reserves was becoming a more formalised and standardised procedure in Canada (Canada MAB, 1994).

According to one federal government employee, between 1994 and 1996 a draft co-operative agreement and IBA were developed between the CWS and the Clyde River Hunters and Trappers Association which could have allowed for the establishment of the NWA (Interviewee #9, personal communication, 2010). One CWS report stated that by 1996, a cooperative agreement between four government signatories and a fifth party had been close to completion (Canadian Wildlife Service , 1996b). The draft agreement itself stated that the establishment of the NWA "is not expected to raise any matter that would have detrimental impact on Inuit or that could confer a benefit on Inuit" therefore not requiring an IBA at that time (Canadian Wildlife Service, 1995). However, upon consultation with NTI (a fifth signatory), it

became apparent that the scope of the IBA would need to be renegotiated. This led to more formalized planning between CWS and NTI. From the perspective of one ENGO affiliated observer:

> the land claim for Nunavut had been settled, the government of Nunavut was coming into being, the land claim agreement stipulated may different programs and decision-making bodies that overtook the more simple direct engagement between the community and federal officials in Ottawa as far as discussions about designations, and so to put it in maybe a simplistic way bureaucracy, kind of encumbered the discussion and progress toward a designation (Interviewee #10, personal communication, 2010).

This appears to have led to a period of planning for the NWA which was centralized, taking place primarily between the emerging Inuit powers and the federal government.

4.3.4 Centralized Planning (1997-1999)

As a result of the NLP, the community-based approach to CMEG formation, which involved the Clyde River Hunters and Trappers and the CWS, appears to have left an additional need for input from higher levels of organization at the national and territorial levels. This was because the co-management approach being taken was coming from the top, and because the details of the Inuit IBA, while being negotiated between multiple parties, had to be framed by CWS and NTI.

As recalled by a federal government employee, following the community-based approach "we entered into a couple of years of discussions [with NTI] about what form the I[unit] IBA would take" (Interviewee #9, personal communication, 2010).

On negotiating the scope of the Inuit IBA, it was written in 1998 that:

> [a]s part of the process, NTI completed the review of the draft IBA for the proposed national wildlife area at Igaliqtuuq negotiated by the designated Hunters and Trappers Organization (HTO) of Clyde River and the CWS. This is the first negotiated IIBA for a conservation area. It awaits resolution as to whether CWS will negotiate economic opportunities (Indian and Northern Affairs Canada, 1998, pp.12).

Reflecting on this matter, one interviewee suggested that "the [first] IIBA came out fairly neutral saying that there would be marginal benefits for the community in terms of employment and income and that sort of thing" (Interviewee #8, personal communication, 2010). In addition to this, one Clyde River resident also suggested that negotiations broke down at one point over the issue of financial support for the proposed NWA (Interviewee #1, personal communication, 2010).

With regards to the planning which was required for a biosphere reserve, evidence suggests that regional planning on the ground may have been a challenge for those leading the establishment of the National Wildlife Area. While there is no evidence that planning for the Igalirtuuq Marine Biosphere Reserve was formally abandoned at this time, it was certainly overshadowed by developments surrounding the establishment of the NWA. While the chair of the ISC attended meetings of the biosphere reserve working group until 1997 (Interviewee #8, personal communication, 2010), it was also noted in a NWMB meeting that the biosphere reserve proposal had been deferred for five years (Nunavut Wildlife Management Board, 1995). Reasons for this may have included the perceived requirement for the establishment of the NWA prior to the biosphere reserve nomination, as well as evidence suggesting that the processes

required for establishing a biosphere reserve required broader consultation than had been pursued up until that point for the establishment of the NWA (Mills, 1992). As one example of this, the territorial government, which was yet to be formally established, would have likely been involved in supporting a biosphere reserve nomination (Interviewee #8, personal communication, 2010). This is not to mention the importance of engaging the Inuit organizations. Such planning, which did take place from 1997 to 1999 led to the multi-level negotiations of an Inuit IBA for NWAs in Nunavut from 2000-2008. By this time the biosphere reserve proposal was hardly mentioned.

4.3.5 Multi-level Negotiations (2000-2008)

This point in time is significant because it appears to represent a conceptual shift from a government driven managerial approach, towards a governance approach to the ICI. It was around 2000 that NTI became quite involved in setting the stage for the final negotiations for the NWA, as well as for other proposed and existing Migratory Bird Sanctuaries and National Wildlife Areas in Nunavut. According to a 2000 annual report on the implementation of Nunavut:

> [w]ith regard to the IIBAs required for conservation areas, the NTI and the Canadian Wildlife Service (CWS) renewed their efforts to narrow differences. By the end of the year, progress was being made toward an agreement on the start of negotiations, expected to begin during the summer or early fall (Indian and Northern Affairs Canada, 2000, pp. 9).

In this same year it was also recalled that:

> "…CWS and Nunavut Tunngavik, and the regional Inuit associations agreed that we would commence negotiations on the umbrella IIBA that would address all of CWS's conservation areas" (Interviewee #9, personal communication, 2010).

This approached appears to have been born through centralized planning between NTI and the CWS, with the result being characterized as multi-level negotiations, for both the ICI and other conservation areas in Nunavut. It is seen as setting a precedent for future conservation areas in northern Canada.

Unfortunately, relatively little was learned about the negotiations themselves. It is known, that the key participants included: local, regional, and territorial Inuit organizations and the CWS (Environment Canada *et al.*, 2008). In addition to this, in one Nunavut Tunngavik Incorporated (2005) news release, it was stated that Inuit organizations requested that "an adequate inflation adjustment mechanism...to protect the value of funds to be paid in the future." Commenting on the Inuit IBA negotiations one ENGO affiliated interviewee commented that during this time

> funding arrangements took over because the Nunavut claim settlement involved an impact and benefit agreement being required around land designations and conservation areas which is all meritorious but again took up time to process and in the face of limited budgets, to reach conclusions and negotiated agreements between Inuit beneficiaries and the Federal Government (Interviewee #10, personal communication, 2010).

This suggests that financial resources were of importance to these negotiations. However, a look at the actual document reveals much more.

While many of the details surrounding the negotiation of the umbrella impact benefit agreement are opaque, it should be noted that unlike many IBAs which are highly confidential, the extensive final document has been made public (Environment Canada *et al.*, 2008). This provides a considerable amount of information about the outcomes of these negotiations.

Based on this document, it appears that the IBA negotiations were concerned numerous social and economic impacts and benefits which related to the establishment of NWAs in Nunavut (Chapter 5), and that negotiators were successful in addressing such issues. One interviewee recalled, that prior to the IBA, the NWA may have provided for one or two local jobs, and facilitation of an annual meeting between the CWS and the community (Interviewee #9, personal communication, 2010), whereas the IBA agreement which is to be reviewed again in 2012, provides detailed timelines and funding allocations for the implantation of the NWA, as well as the requirement to establish Area Co-management Committees for the NWAs. These outcomes are discussed further in Chapter 5. It is important to note however, that the IBA can be seen as enabling formal CMEG formation (2009-present).

4.3.6 Collaborative Multi-level Environmental Governance (2009-present)

The outcome of the aforementioned planning and implementation attempts was the establishment of a co-operatively managed National Wildlife Area in 2010. It appears that presently, the implementation of the NNWA, as set out under the Inuit IBA has taken high priority for those involved (Han, personal communication, 2010). It is yet to be seen whether the current CMEG arrangement will feed into potential future designations such as a biosphere reserve or a larger marine management zone. The important context identified in this case study

will help to better identify important variables, as well as specific states of variables, which are thought to contribute to the establishment of CMEG in this case study (Chapter 5).

CHAPTER 5: THEMATIC ANALYSIS OF GOVERNANCE FRAMEWORK

5. 1 Introduction

Having described key participants and approaches taken to the formation of CMEG for the ICI, this chapter describes the fit of previously identified variables which are thought to contribute to successful CMEG arrangement formation. In order to do so, it has tested the CMEG framework of variables (Table 6) against the data collected in the ICI case study. Each condition is discussed below, followed by a separate section which discusses several other variables which emerged during analysis.

5.2 Applying the Multi-level Environmental Governance Framework to the Case Study

This section applies the CMEG framework identified in Chapter 2 using data from the case study. The thematic content analysis was conducted by the researcher; however, empirical evidence of the presence of literature-based variables in the case study was documented throughout the data set using ATLAS.ti v.6.2 software. Each condition is discussed separately below.

5.2.1 Goals and Objectives

The case study confirms the importance of addressing multiple objectives, or scales in the formation of CMEG. In this case, the main objectives address: conservation, economics, and social and cultural well-being. Evidence suggests that these objectives were also thought to be

compatible enough to reach an agreement for CMEG formation. The multiple and compatible goals and objectives identified in this case study are discussed below.

Table 6 Framework of Variables and Conditions for Multi-level Environmental Governance Arrangement (As Presented in Chapter 2)

Variables	Conditions	Source
Goals and objectives	Multiple objectives	Dowsley, 2008
	Common and compatible goals	Clark and Slocombe, 2009
Legislation and political support	Enabling legislation	Berkes, 2002
	Enabling policy	Berkes 2002
	Political support	Berkes, 2002
Human and financial resources	Human resources	Reed, 2007
	Financial resources	Reed, 2007
Roles and responsibilities	Defined roles and responsibilities	Singleton, 2009
	Distributed roles and responsibilities	Young, 2002
	Respect for Aboriginal rights	Singleton, 2009
Relationships and processes	Cross-level linkages	Berkes, 2002
	Space for multiple worldviews	Natcher and Davis, 2007
	Discourse and language	Clark and Slocombe, 2009
	Managing multi-level interactions	Natcher *et al*., 2005

5.2.1.1 Multiple Goals and Objectives

This case study certainly exemplifies the pursuit of multiple goals and objectives through the CMEG formation process. This is evident when comparing planning documents including

conservation and management plans, as well as the Inuit IBA agreement. Along with the main goal of protecting significant habitat, socio-cultural, and economic, goals have also taken on importance throughout the governance arrangement formation process. The inclusion of goals and objectives which include socio-economic and conservation scales, is seen as a product of the centralized planning phase of CMEG formation.

According to Igalirtuuq: A Conservation Proposal for Bowhead Whales at Isabella Bay Baffin Island, NWT (Community of Clyde River, 1990: 4) the goals of the initiative as a whole were:

> i) To protect the bowhead whale and their critical habitat at Isabella Bay, Baffin Island from human disturbance and pollution;
>
> ii) To aid recovery of the bowhead whale population by encouraging scientific research and conservation action at Isabella Bay and the surrounding region;
>
> iii) To protect an important cultural heritage of the Inuit of Baffin Island; and
>
> iv) To provide for the direct involvement of Clyde River in decisions and work related to carrying out the conservation plan.

Also mentioned in the (1990) plan were the long term goals of: contributing to the reestablishment of the bowhead whale as a resource; protection of the site from removal of materials such as whale bone; the steering of potential tourism in the region; the encouragement of research opportunities; and the creation of broader awareness about bowhead whales and associated cultural heritage.

In support of these early goals, those of the biosphere reserve emphasized “education, training, environmental research and monitoring” as well as strong local initiation and involvement (World Wildlife Fund Canada, 1988 in Nickels, 1992). Objectives of the biosphere

reserve also included: international recognition…comparative research…and the creation of a buffer zone around the sanctuary (Community of Clyde River, 1990). According to one local interviewee, the main goals of the proposed biosphere reserve were to encourage research and education (Interviewee #1, personal communication, 2010).

By 1995, a draft of the Igalirtuuq NWA Management Plan (Canadian Wildlife Service, 1995) identified the following primary goals of the conservation area:

1. To manage the area according to sound ecological principles;

2. To protect wildlife and wildlife habitat in the area from human disturbance and pollution, particularly the Bowhead whale and its habitat;

3. To encourage research that increases our understanding of bowhead whales and other species in the area;

4. To protect Bowhead whale habitats for the sake of tradition so that future generations of Inuit will be able to hunt Bowhead whales once again, when the whale populations begins to return to its previous state;

5. To involve the community of Clyde River in management of the area; and

6. To increase public awareness of and appreciation for the natural resources of the area, particularly the bowhead whale.

It is worth mentioning that the ISC were successful in ensuring that point four remained a priority of the NWA. With reference to the NWA and biosphere reserve planning, it was recalled by one interviewee affiliated with the Canadian Biosphere Reserves Association that:

> the National Wildlife Area clearly was much more focused on some of the concerns of species at risk…but when it came to the biosphere reserves, part of the attractiveness…

> was the whole idea of there is this area that based on traditional knowledge they knew was a gathering site for the bowhead and it was an important part of their habitat. So on the one hand, wanting to conserve it, but it was at a time when the Nunavut government was also trying to stimulate a diversification of the economy… and at the time there was a blossoming view of tourism opportunity within the eastern Arctic and I think they were trying to position it to capitalise on that (Interviewee #7, personal communication, 2010).

This analysis suggests that, prior to IBA negotiations, the NWA was primarily concerned with species and ecosystem conservation, tourism, and continued research, while the biosphere reserve component was seen as being capable of addressing these goals, as well as goals addressing local and traditional knowledge, culture, and the sustainable development of resources. Further evidence of this can be seen in the 1996 draft biosphere reserve plan, in which it is proposed that the biosphere reserve committee might "protect biological diversity, preserve cultural features of Isabella Bay, [and] ensure sustainable use of the environment through community leadership and/or involvement" (Sian, 1996). However, this strategy may not have been enough to convince all parties that socio-economic objectives would be properly addressed in the ICI.

It appears that the inclusion of these socio-economic objectives in the NWA planning would become an important planning objective, and following a re-scoping of the Inuit IBA process, as well as further negotiations, the following list of goals were introduced through the 2008 IIBA:

> …bring[ing Inuit Qaujimajatuqangit or local and traditional knowledge] to responsible decision-making about lands, waters and marine areas [which are to be]…co-managed by

> the Inuit and CWS [in order for the Inuit to]…fully benefit from and fully participate in the economic and other opportunities arising from the establishment and management of the NWA...

It goes on to say that the NNWA should also:

> …avoid social and cultural disruption to Inuit…be consistent with harvesting rights [ensuring that the Inuit language is]… preserved…supported…and promoted [while protecting Inuit]…archeological and cultural heritage…building capacity…encouraging self-reliance [and]…cultural and socio-economic wellbeing of the Inuit… (Environment Canada *et al.*, 2008, Article 2).

This suggests that addressing a range of biophysical and socio-economic, and cultural goals was of importance through formal CMEG formation, and that such goals may be viewed as compatible.

5.2.1.2 Common and Compatible Goals and Objectives

This case study confirms the importance of having common or compatible goals in CMEG formation. Although some of the goals of participants may have differed, persistent negotiation enabled an agreement for CMEG. As mentioned above, early on, shared goals included biological and cultural conservation, as well as providing some sort of local involvement and benefit from the ICI (Canadian Wildlife Service, 1995).

Through the NLP, and more specifically the direct involvement of regional and territorial Inuit organizations in negotiations, the goals of the NWA were broadened to include

significantly more social and economic aspects of conservation. As recalled by one federal government employee, the goals of Environment Canada changed from being concerned "primarily with wildlife conservation" to addressing "everything from financial control of what goes on there to hiring" (Interviewee #9, personal communication, 2010). This interviewee also suggested "[the goals of different participants] complemented each other enough to make the agreement possible." Regarding differences, it was observed that"[t]he more local you get the closer our management goals for the conservation area align" in other words, "the HTO's goals for that area…are relatively close to ours [the CWS], and as you step further away from the community and you get to the territorial level with Nunavut Tunngavik, the goals do not match up as well, but they are still compatible enough to get an agreement." This suggests the importance of taking a multi-level approach to CMEG formation. The way that CMEG formation unfolded in the ICI also has much to do with legal and political variables at play.

5.2.2 Legislation, Policy, and Political Support

Legal tools, policy, and political support are seen as important conditions in the successful arrangement for CMEG. Regarding enabling legislation, the use of the Wildlife Act, and the overarching guidance of the Nunavut Final Agreement are seen as important in the success of the collaborative marine initiative. In addition to this, political support from multiple levels is seen as being important in reaching an agreement for CMEG that is consistent with legal requirements. Each of these is discussed below.

5.2.2.1 Enabling Legislation

In this case study, enabling legislation appears to be a very important condition for CMEG formation. As described in Chapter 4, there have been multiple attempts to find legislation to allow for establishment of a collaborative marine conservation area. In other words, while the NNWA could legally be established by the CWS, it was the Nunavut Final Agreement which enabled collaborative NWAs. On the matter of a Fisheries and Oceans administered conservation area, it was noted by one interviewee that:

> [a]t the time they [the DFO] said they had no ability to actually establish a marine protected area. I commissioned a legal analysis…[which] said yes indeed they could fashion a protective arrangement under existing legislation. We gave that to the department, it wasn't compelling to them (Interviewee #10, personal communication, 2010).

It appears that difficulties in establishing marine conservation areas have been experienced by government agencies prior to specific legal developments. Several developments of importance to the establishment of marine protected areas, actually took place during this case study. As observed by Bankes and Associates (1998, pp. 17) in a review of conservation legislation in Nunavut:

> To date, conservation area initiatives have focused on the terrestrial environment, and while recent new initiatives (Bill-48, and the MPA and MWA designations under the Oceans Act and the CWA [Canadian Wildlife Act]) have gone some way towards redressing the balance, these initiatives are largely untested.

Further weaknesses in legislation which are noted by these authors pertain to ecological; historical, cultural, and archaeological; as well as time sensitive habitat protection. Another weakness in legislation pointed out by the Nunavut Land Use Planning Commission (2000, pp. 40) is that "At one time, there was no mechanism to protect these community-identified areas, unless the area happened to meet criteria for an existing type of government protection." Finally, there appears to have been a shift in such responsibilities which now include communities (Bankes and Associates, 1998; Interviewee #6, personal communication, 2010).

As confirmed by one interviewee, following "efforts to get the DFO to move [which were] quite labourious" some suitable legislation (The Canada Wildlife Act) was found through Environment Canada:

> [t]he Canadian Wildlife Service became more and more interested in playing a role in the conservation effort and in fact at some point said it would be interested in leading and turning the area into a National Wildlife Area. At that point, in effect, the pressure on DFO to do something declined and the lead responsibility got taken over in effect by Environment Canada where CWS is based, and my recollection was that CWS was particularly interested in demonstrating that they could in fact establish National Wildlife Area offshore or in coastal near shore areas kind of as a precedent (Interviewee #10, personal communication, 2010).

With this being said, it has also pointed out that "[a]ll CWS could do was establish a management regime for the surface, which of course is only partially effective in addressing the need for marine protection." It was recalled that:

> I remember thinking at the time, 'well that's great, they want to do it, so let's work with them, but at the same time, if DFO had limited jurisdiction or limited mechanisms for actually establishing a marine conservation area, CWS's were certainly limited because they had no legislative mandate for anything that happens in the water column because DFO had that" (Interviewee #10, personal communication, 2010).

In part, the problem of establishing a community identified protected area was addressed by the Nunavut Final Agreement which "provides for the creation of protected areas [including] provisions to guide development of national and territorial parks and ensures that communities will have a major role in this work…[additionally] NPC [Nunavut Planning Commission] has developed guidelines to establish, assess or review conservation areas in Nunavut" (Nunavut Land Use Planning Commission, 2000, pp. 40). The NLP helped to ensure that conservation governance could be multi-level, and that some of the necessary financial and human resources would be provided for community-based conservation. Reflecting on the impact of the NLP one interviewee shared that:

> We have a lot of good will and a lot of good ideas and good knowledge but not a lot of money. If it hadn't been for the fact that the federal government through the land claim was forced to negotiate an impacts and benefit agreement for our sanctuaries there would be no co-management committee down there. If there was a committee it might meet once a year and it really wouldn't get around to doing much of anything (Interviewee #9, personal communication, 2010).

This suggests the importance of having legislation which enables and legitimizes the establishment of various types of conservation areas (i.e. community identified marine areas). Of additional importance is the policy and political support needed to undertake such designations.

5.2.2.2 Enabling Policy

In this case study the importance of enabling policy is exemplified in the following ways. With regards to the NWA, it was the policy of the CWS and Environment Canada to protect marine areas which first enabled the government to engage with the initiative proponents. However, with regards to the biosphere reserve initiative, the policy of the CWS to focus its activity on the NWA may have hindered further CMEG.

5.2.2.3. Political Support

This case study affirms the importance of political support as a specific condition in establishing this CMEG arrangement. There is considerable evidence showing local, regional, and territorial support for the NWA and biosphere reserve, as well as evidence pointing to the consequences of a lack of broad political support.

Ongoing local support is seen as a very important condition in the formation of collaborative governance in the ICI. It appears that this may also be very important for successful CMEG formation. Early on, several public meetings and plebiscites which were held at the local level indicated public support for the ICI (Hackman, 1993). As one federal government employee (Interviewee #9, personal communication, 2010) noted:

> there have been people from the community that have led this initiative all the way, and it starts back in the 1980s with some of the elders…and then there were numerous other

> people in the community, both on the hunters and trappers organization and outside of the HTO, that put a lot of time and energy into shepparding this initiative along. [Furthermore t]here are key worker bees within the community if you like, and then at pivotal decision point they will often put it out to the community (Interviewee #9, personal communication, 2010).

Based on the example of the biosphere reserve proposal it appears that strong local political support is also of importance for CMEG. As shared by one interviewee who has been quite involved in the biosphere reserve program in Canada confirmed "they [biosphere reserves] have to start at the grass-roots and have local champions and they are the ones to get enough community support" (Interviewee, #6, personal communication, 2010). This suggests the importance of political support and processes aimed at establishment of CMEG arrangements.

By 1994 the ICI appears to have received local and regional political support from both the community of Clyde River, and the Baffin Regional Hunters and Trappers Association, as well as political support from CWS, DFO, GNWT, and DIAND. In addition to this, TFN, the emerging territorial Inuit power, appears to have been cautiously supportive, provided that Inuit rights were not being infringed upon in the process (Unknown Author, 1993). We also know that the NLP allowed for the ICI through its provisions concerning conservation areas. From this foundation of support, the NNWA initiative can be characterized by strong local, regional, and national level political support.

This analysis also suggests the importance of having multi-level political support for a process which is specifically geared towards CMEG arrangement formation. It appears that the

absence of multi-level political support and process specifically aimed at the establishment of a biosphere reserve may have affected the success of the proposed biosphere reserve initiative.

It appears that political support for the biosphere reserve proposal waned over time at the local level. For example, only one local interviewee was familiar with the biosphere reserve concept and initiative. In addition to this, it appears that the concept had not received strong political support at the regional level. This is not to say anyone was against the idea, but rather, that it appears to have lacked a champion. Closely related to this was the absence of a lasting process for biosphere reserve formation which aligned all pertinent participants. For example, the review of documents suggests that following a brief joint approach to biosphere reserve-NWA planning, the NWA planning took precedent over the biosphere reserve.

Local political support for CMEG appears to have the potential to generate further support from key participants at different levels of organization. For example, through the NLP it became important to gain political support of Inuit organizations at the local, regional, and territorial levels. It was suggested that that local support for the ICI may have been important in ascertaining necessary political support for the NNWA from Nunavut Tunngavik Inc. and others such as the regional Inuit organizations (Pelly, personal communication, 2010).

5.2.3 Human and Financial Resources

Securing, human and financial resources were important conditions in establishing CMEG for the ICI case study. Community-based and centralized planning focused on two important aspects of financial resources. The first, include income derived from potential tourism and ongoing use of the conservation region, and the second, were cash resources to implement the conservation arrangement. Of additional importance was ensuring that the financial benefits

were directed towards the local, regional, and territorial level. The importance of human resources can be seen at several levels within the case study from the local to the national. Each of these is discussed below.

5.2.3.1 Human Resources

Based on this case study, human resources are also seen as being an important condition in successful CMEG arrangement formation. Despite some acknowledged human resource challenges, we now know that sufficient levels of human resources existed in order to establish the NNWA. Residents were capable of attracting funding and political support for the initiative, which is evident based on the support received from organizations and government agencies such as WWF Canada, Canada/MAB and CBRA, CWS, NWMB, and Nunavut Tunngavik Inc. The case study also reveals that participants were able to acquire research and development funds (i.e. Nunavut Wildlfe Management Board, 2000). In addition to this, federal government agencies facilitated numerous meetings between initiative participants and succeeded in funding the IBA.

The biosphere reserve initiative provides evidence of the importance of having adequate human resources at higher levels in order to facilitate CMEG arrangement. On this matter, cutbacks and a lack of core funding may have undermined the ability of biosphere reserve organizations in Canada (Francis 2004; Interviewee #9, personal communication, 2010). With this being said, it appears that talented individuals existed and worked within their means to further the ICI. It is well known that a few key individuals have been responsible for much of the success of the existing biosphere reserves in Canada.

5.2.3.2 Financial Resources

Throughout planning it is evident that some residents expected to gain some economic advantage through the ICI, such as through jobs providing light tourism (Community of Clyde River, 1990). As planning progressed, it became apparent that in addition to such indirect sources of financial resources, cash would be necessary for implementing the conservation initiative in a way that both involved and benefited local, regional, and territorial residents.

On the matter of core funding, one interviewee at the local level recalled that "we started negotiating with the Canadian Wildlife Service and we never really did have any agreement because there was no way Canadian Wildlife Service would give us any money to run, or to start, or to begin whatever agreement we decided to put in" (Interviewee #1, personal communication, 2010). The importance of core funding was also suggested by an interviewee from the World Wildlife Fund who recalls that following the Nunavut Final Agreement:

> funding arrangements took over because the Nunavut Claim settlement involved an impact and benefit agreement…which…took up time to process…because the Federal Government didn't have the money or want to commit the money to establishing an ongoing management fund for the area (Interviewee #10, personal communication, 2010).

Eventually, the CWS was able to secure core funding for the NWA. As it was recalled by a federal government employee, "it took us another two or so years to get the financial mandate from Indian and Northern Affairs, and then we had to do a Treasury Board submission *etc.*, and in the end it took until 2008 to get that finished" (Interviewee #9, personal communication, 2010). According to Nunavut Tunngavik Inc. (2008) the agreement which apples to Migratory Bird Sanctuaries and NWAs throughout Nunavut:

> provides $8.3 million over seven years for environmentally sustainable tourism, employment, co-management and other opportunities for Inuit in the affected communities. Under the agreement, Inuit will receive $5.6 million to control, use and administer for tourism, and cultural and natural resource initiatives. Funding for the IBA will be renegotiated in 2014, in perpetuity, meaning Inuit will be provided with benefits for generations to come.

In order to further illustrate this point, a lack of core funding has been seen as an additional challenge to the proposed DFO sanctuary, the NWA, and the biosphere reserve initiative. According to minutes from one meeting, the DFO simply did not have adequate financial resources to establish the proposed whale sanctuary (Mills, 1992). One NGO affiliated interviewee recalled that at one point "the Federal government didn't have the money or want to commit the money to establishing an ongoing management fund for the area" (Interviewee #10, personal communication, 2010). With regards to the establishment of a biosphere reserve, it was suggested by one federal employee that limited financial resources to put towards the establishment of the biosphere reserve may have presented a challenge to its progress, observing that "the only thing I could see from where I sat, was just a lack of financial resources to put into it" (Interviewee # 9, personal communication, 2010). In addition to these examples, it is suggested by one researcher that a lack of stable funding for the biosphere reserve at the local level made its establishment unlikely at the time, despite approval of a draft management plan (Price, 1995). On the matter of financial support for CMEG, one interviewee discussed the potential for failure which exists when responsibilities are redistributed without adequate

financial resources (Interviewee #7, personal communication, 2010). This case study therefore suggests that core funding is a very important condition in successful CMEG formation.

5.2.4 Roles and Responsibilities

In this case study, defining and distributing roles and responsibilities are seen as important variables in the CMEG formation process. This is exemplified through negotiations which helped to determine the division of roles and responsibilities between Inuit, state, and other organizations in the ICI. In addition to this, the importance of this condition can be seen through challenges facing the biosphere reserve designation, with uncertainty surrounding the respective roles and responsibilities of participants.

5.2.4.1 Defined Roles and Responsibilities

Early on, participants in the ICI began an ongoing process of defining and redefining their respective roles and responsibilities. This condition was influenced by broader contexts within which the participants were operating which included trends in environmental governance, political developments, and the NLP. Documents show that while roles and responsibilities of participants have changed throughout the planning process, the process of defining roles and responsibilities is an important aspect of the relationships and processes condition because it can allow participants to effectively participate in governance formation, and may provide benchmarks for governance evaluation.

The progressively nuanced definition of roles and responsibilities with regards to the NWA suggests the importance of clarification of these important aspects for successful multi-level environmental governance. That the Inuit IBA will be reviewed based on these roles and

responsibilities, suggests the importance of this condition in evaluating and potentially improving, the governing process in the future.

5.2.4.2 Distributed Roles and Responsibilities

The governance arrangements negotiated for the territory of Nunavut, as well as for the NNWA, resulted in a redistribution of some of the roles and responsibilities in environmental governance. While ultimate decision-making authority appears to have been retained by the Federal Government through co-management processes (i.e. Environment Canada *et al*., 2008), the extent to which Inuit voices have been added to the processes is considerable (White, 2002).

The differences which can be seen in the governance participants over time suggest the importance of this condition for successful CMEG, and are discussed below. The (1990) Igalirtuuq Conservation Plan briefly suggested that the key roles and responsibilities be as follows: that the DFO designate a project coordinator to establish a steering committee comprised of government and private agency representatives including local and regional organizations; that Clyde River, WWF, and Canada/MAB write and submit a biosphere reserve proposal; and that Clyde River and other communities establish a whale monitoring network.

By 1995, a draft agreement for the establishment of Igalirtuuq NWA outlined the anticipated roles and responsibilities of participants in the following way: Environment Canada would lead the establishment of a co-management committee comprised of four HTA appointees, four Department of Environment appointees representing the Department of the Environment, DFO, the Department of Indian Affairs and Northern Development, and the Government of the Northwest Territories Department of Renewable Resources. This committee

would essentially be responsible for reviewing and issuing permits for the wildlife area, as well as funding research respective research and staffing.

In 1996 a draft biosphere reserve management plan identified roles and responsibilities of the proposed Igalirtuuq biosphere reserve participants in the following way: in addition to the co-management committee (as described above), another biosphere reserve committee would be created from the Igalirtuuq Steering Committee. This proposed Igalirtuuq Biosphere Reserve Management Committee would be based in Clyde River and represent the community as a whole in dealing with research, education, and tourism and recreation (Sian, 1996).

Through the negotiation of the Inuit IBA, the roles and responsibilities of participants included: establishment of an Area Co-management Committee with three appointees made by a regional Inuit lands and resources committee, and three by the CWS, one of which would be an employee, and two from the community lands and resources committee; training of the ACMC by the CWS, and national and or regional Inuit organizations; secretariat services are also to be provided by the CWS. In addition to these, the responsibilities of the ACMC itself include: advising authorities on management of the NNWA and conservation area in Nunavut. In addition to these roles and responsibilities, the Inuit IBA outlines responsibilities of agencies and organizations with regards to natural and cultural resource inventories, business, education and employment, research, visitor access *et cetera*.

5.2.4.3 Respect for Aboriginal Rights

In this case study the respect for Aboriginal rights of Inuit participants appears to have been a major condition in the successful establishment of the CMEG. One of the key variables in the ICI was the importance of meeting requirements that were set out in the Nunavut Final

Agreement. It was suggested by Interviewee #12 (personal communication, 2010), a hired consultant for the ICI, that prior to the settlement of the land claim, Inuit participants were very concerned about protecting their rights, especially to harvesting wildlife. It was the role of ITK (the forerunner to NTI) to ensure that the governance arrangement conformed to this important context.

Additionally, as a part of the NLP, the relationship between Inuit and Inuit organizations, and the CWS, was further fleshed out through an IBA. This supports the claim that Aboriginal rights ought to be recognized and addressed in the process of CMEG establishment. While the IBA is subject to development sunder the NLP, it is seen as addressing this condition within the planning process.

5.2.5 Relationships and Processes

Analysis suggests that relationships and processes including specific: cross-scale linkages, multiple worldviews, discourse and language, and problem solving, constitute important aspects of CMEG arrangement formation. Each of these is discussed below in relation to the case study.

5.2.5.1 Cross-level Linkages

The importance of linkages between different levels can be seen in this case study using the example of the Inuit IBA negotiations for the establishment of Migratory Bird Sanctuaries and NWAs. The value of these negotiations is evident in the range of scales that the Inuit IBA addresses. As one federal government employee recently commented, negotiations addressed "everything from finance, to control of what goes on down there, to hiring, you know everything.

Our goals for the NWA were much narrower than that, primarily with wildlife conservation but…now of course due to Canada's obligations under the Land Claim our goals are somewhat wider because we have signed on to the goals of the IIBA which are not strictly about wildlife conservation" (Interviewee #9, personal communication, 2010).

The importance of recognizing developments at different levels of governance formation is seen as being important for multi-level governance. For example, as one interviewee who was involved in producing a draft management plan for the Igalirtuuq Biosphere Reserve recalled, "needless to say, the [biosphere reserve] proposal didn't go very far or wasn't able to go very far until it had clarity around the designation of the NWA which took quite a long time in coming" (Interviewee #7, personal communication, 2010). Furthermore, evidence suggests that a proposed DFO led management initiative has been on hold pending the establishment of the NWA. It should be noted, that the legal establishment of any further designations would also require an impact benefit agreements under the Nunavut Land Claims Agreement.

5.2.5.2 Space for Multiple Worldviews

In this case study there are several examples of the attempt to include multiple worldviews and knowledge forms in the governance formation process. One example involves early attempts to use local knowledge for conservation planning. Another example can be seen through the Inuit IBA which contains provisions for the inclusion of Inuit knowledge in planning and management for the NNWA as well as other conservation areas in Nunavut. In addition to these examples, the attempt to include Inuit knowledge in broader conservation initiatives in Nunavut and beyond, can be seen through the bowhead whale knowledge study (Hay, *et al*., 2000), and the Conservation Strategy for Bowhead Whales (Moshenko *et al.*, 2003). With

reference to the biosphere reserve, it has been observed by some interviewees affiliated with the biosphere reserve proposal, that the interpretation of environmental governance mechanisms through specific cultural lenses can be very important in reaching their full potential (Interviewee #6, personal communication, 2010; Interviewee #7, personal communication, 2010). These examples and potential opportunities are discussed below.

Early attempts to include multiple worldviews in the ICI can be seen by looking at the 1990 conservation proposal which was drafted with full participation of the Clyde River Hunters and Trappers Association (Interviewee # 11, personal communication, 2010). One specific example of this may include the goal of eventually resuming traditional bowhead hunting through the establishment of a protected area (Canadian Wildlife Service, 1996a). In addition to this, the potential use of the conservation area for resource harvesting and enjoyment has remained important in the ICI. According to one resident interviewee, the use of firearms in the proposed NWA may be an example where different worldviews have been addressed in the planning process (Interviewee #1, personal communication, 2010). The inclusion of Inuit knowledge in management can also be seen through the negotiation of the Inuit IBA.

It appears that the Inuit IBA has attempted to create space for local, Inuit, and collaborative worldviews in governance formation and implementation (Environment Canada *et al.*, 2008). With regards to the outcome of the Inuit IBA, one federal government employee observed that:

> the community members of the co-management committee, they pretty much, I mean within the basic parameters of wildlife conservation, which is what we have to have for a wildlife area, within those basic parameters they are the ones that are managing the area (Interviewee #9, personal communication, 2010).

As set out in the IBA Inuit knowledge and practices (Inuit Qaujimajatuqangit or IQ) is to be a guiding principle for NWA planning and management. The extent to which these different worldviews have been addressed directly in the ICI is somewhat less unclear. However broader related examples of the inclusion of space for multiple worldviews in environmental governance in Nunavut can be observed.

Developments in the NLP led directly to the undertaking of a bowhead whale knowledge study which focused entirely on Inuit knowledge about bowhead whales (Hay *et al.*, 2000). In addition to this, the *National Recovery Plan No. 24: Conservation Strategy for Bowhead Whales (Balena mysticetus) in the Eastern Canadian Arctic* attempted to address multiple worldviews in conservation planning. The importance of including Inuit perspectives and values in environmental governance has been seen as an opportunity for the biosphere reserve program in Canada.

With regards to potential CMEG opportunities through a biosphere reserve designation, an interviewee affiliated with the ICI and the CBRA recalled that:

> one of the observations that I have had living in the North as long as I have, is that the MAB Programme, the biosphere reserve program in particular, [including] the nomination process around it, and the review processes around it, it's really based on a more southern model, it feels a bit more how do you put it administratively burdensome, bureaucratic,…it wasn't as compatible with what probably would have been a natural resource management approach that fit culturally into the area according to how they are governed and how they are structured (Interviewee #7, personal communication, 2010).

The potential importance of this condition was reinforced by the insight from another Canadian Biosphere Reserves Association and Canada/MAB affiliate who suggested that "the question is does the concept have to be modified in order to [be consistent with local life and culture?] I think in some parts of Canada it would. I think it's probably time we had a look at this" (Interviewee #6, personal communication, 2010). One important determinant for this condition may be the discourse and language associated with CMEG formation.

5.2.5.3 Discourse and Language

The importance of discourse and language in steering governance formation cannot be understated as these variables tend to frame the entire process. Early on, community-based planning framed the ICI as a locally driven initiative and expressed the importance of local participation in planning and management.

Regarding language, it seems that care was taken early on in the ICI to express plans in both English and Inuktitut (Community of Clyde River, 1990). In addition to this, some early biosphere reserve literature was also translated into Inuktitut (Interviewee #8, personal communication, 2010). Evidence suggests that NWA planners continued this practise. For example, one annual report on the implementation of Nunavut stated that:

> During the creation of the co-management plan for the Igalirtuuq NWA, all materials were available in both English and Inuktitut. Similarly, the brochures planned to be developed in 1995-96 for the Igalirtuuq and Nirjutiqavvik NWAs will be published in both English and Inuktitut, and will use information supplied by Inuit co-management committee members to feature Inuit cultural and historical perspectives (Indian and Northern Affairs Canada, 1995, pp.17).

Of additional importance may be a shared understanding of certain key concepts associated with governance formation and management.

The formal IBA process, although fairly opaque, was most likely attentive to language requirements for participants. This is suggested in the IBA provision requiring culturally appropriate interpretation and translation in management of conservation areas in Nunavut (Environment Canada *et al*., 2008). For the actual implementation of the IBA for NWAs and other conservation areas, it appears that guides have been developed which seek to translate concepts of importance to the activities of the ACMCs between English and Inuktitut. As those responsible for this task note "[t]he development and use of accurate standardized terminology will be essential to overcome language barriers and facilitate cross-cultural communication in the ACMCs" (Pirurvik Centre for Inuit Language, Culture and Wellbeing, n.d.). This is one example of the attempts of participants to manage the cross-level interactions for CMEG.

5.2.5.4 Managing Multi-level Interactions

Evidence of attempts to manage interactions so as to facilitate successful CMEG can be seen in the case study in several areas including: the use of facilitators, the inclusion of proactive conflict resolution processes in the IBA, and through the requirement for periodical re-negotiation of the IBA.

Regarding the facilitation of cross-level interactions, one interviewee hired as a consultant by the CWS noted that "one of the things that I worked out on the project was an agreement that I actually got the community and BRIA to sign with respect to the outstanding issues. It wasn't an agreement that settled the issues, but it was an agreement that spelled out how the issues would be dealt with" (Interviewee #12, personal communication, 2010). The

subject of this agreement appears to have related to the management of Inuit Owned Land within the proposed conservation area. While this agreement does not appear to have been definitive, this exemplifies an attempt by participants to facilitate cross-level interactions. Such attempts appear to have since been formalized through the Inuit IBA stage of governance arrangement formation.

Another important example of managing interactions is exemplified through Article 16 of the IBA which describes an agreed upon process for dispute resolution (Environment Canada *et al*., 2008). This outlines agreed-upon steps for dealing with potential disagreements over the IBA. Such attempts are seen as providing mechanisms through which potential conflict can be avoided or managed.

On the possible outcome of taking such approaches, this case study appears to exemplify little conflict among participants. As observed by one interviewee from the World Wildlife Fund "It's somewhat ironic but conflict often drives decision-making faster than it otherwise would take place and there never really was any conflict here, so no one felt any need to move any faster than the slowest person at the table, or the slowest process at the table" (Interviewee #10, personal communication, 2010).

This analysis has attempted to test the CMEG formation framework (Chapter2) against the ICI case study. In doing so the general fit of the framework can be addressed. In addition to this, there have been several emergent variables which are thought to be of importance in CMEG formation. These variables are discussed in the following section.

5.3 Emergent Variables

In addition to the variables identified in the pre-established framework (Chapter 2), several other important variables were identified throughout the data analysis process (Table 7). The identification, and subsequent application, of additional variables across the data (via ATLAS.ti v.6.2) has allowed for themes from the case study to further inform the CMEG framework (Chapter2). By using a thematic content analysis approach through ATLAS.ti v.6.2, the importance of a potential theme could be tested against the entire data set. Like the CMEG framework, the codes which were used reflect the names of the variables themselves (Table 7 ***italicized***). The additional variables thought to be of importance now include: early collaboration, leadership, learning, benefits, and flexibility. These variables are each discussed below.

5.3.1 Early Collaboration

Based on this case study, it appears that the establishment of community-based partnerships prior to the establishment of formalized governance arrangements may contribute to the success of CMEG. It is argued by Kearney, Berkes, Charles, Pinkerton, & Wiber (2007, pp. 81) that "If there is to be progress toward participatory governance…it must begin at the community level." Reasons for this may include things such as trust building in order to bridge different levels in governance arrangements. It is also argued by Kearney and others (2007 pp. 81) that this may help to "counterbalance" higher level governance arrangements. In the case study, this can be seen where community-based planning took place between residents, NGOs and governments, prior to more formal negotiations at higher levels. It is possible that potential trust building through early collaboration allowed the concerns and values of those at the local level to inform the more formal aspects of CMEG arrangement formation.

Table 7 Revised Framework of Conditions and their Specific States for CMEG Arrangement Formation, with Additions from this Thesis in Bold and Italicized

Conditions	States of Conditions	Source
Goals and objectives	Multiple objectives	Dowsley, 2008
	Common and compatible goals	Clark and Slocombe, 2009
Legislation, policy, and political support	Enabling legislation	Berkes, 2002
	Enabling policy	Berkes, 2002
	Political support	Berkes, 2002
	Leadership	
Human and financial resources	Financial resources	Reed, 2007
	Human resources	Reed, 2007
	Benefits of CMEG	
Roles and responsibilities	Defined roles and responsibilities	Singleton, 2009
	Distributed roles and responsibilities	Young, 2002
	Recognition of Aboriginal rights	Singleton, 2009
	Early collaboration	
Relationships and processes	Cross-scale linkages	Berkes, 2002
	Space for multiple worldviews	Natcher and Davis, 2007
	Discourse and language	Clark and Slocombe, 2009
	Problem solving	Berkes, 2009b
Learning	***Knowledge co-generation***	
	Flexibility	

5.3.2 Leadership

This case study suggests that multi-level environmental governance formation requires leadership. According to Saul (2002 n.p.), leadership entails "an integrated view of society, culture and economics" which can "challenge the conventional discourse" and is found in this case study where participants have applied and furthered such holistic approaches to conservation.

This analysis reveals that these organizations tended to include local and non-local Inuit organizations, government agencies, and consultants. This being said, government agencies and some NGOs appear to have taken more of a managerial approach to governance at times. For example, according to the CWS (1996b, pp. 19) government agencies waited for the "the passage of the Canada Oceans Act so that leadership and planning infrastructure [could] be put in place—mechanisms that [could] enable and require jurisdictions to work together towards MPA creation." The lack of clear and capable leadership on marine management may have hindered progress towards CMEG. Similarly, from the perspective of Nunavut it has been suggested that lack of leadership over marine management in Nunavut may be hindering overall progress towards marine CMEG (i.e. Daoust *et al*., 2010).

With regards to the biosphere reserve designation, after Canada/MAB lost core funding there appears to have been little leadership for biosphere reserve establishment in Canada aside from local champions. As such, it appears that aside from receiving informal advice, and undertaking networking between biosphere reserves, it is communities who must navigate much of the CMEG process (Interviewee #8, personal communication, 2010). Having a comprehensive perspective on environmental governance appears to be important for all key agencies in order to actualize CMEG. For example, limited knowledge about the context of the biosphere reserve

proposal by federal government employees (Interviewee #9, personal communication, 2010), may have hindered the success of potential CMEG opportunities.

With regards to the importance of a single champion, one interviewee affiliated with a national Inuit organization stressed the importance of individuals and individual character in governance negotiations. This suggests that having an effective champion for a specific initiative may make a very big difference in the final outcome (Interviewee #14, personal communication, 2010). It is known that Clyde River did have a champion for the biosphere reserve initiative for quite some time, and this is seen as being very important for its success (Interviewee #6, personal communication, 2010).

5.3.3 Learning

In order for those at different levels to engage in governance with one another, opportunities to become familiar with the institutions, cultures and processes involved in the ICI, especially at other levels of social organization, appears to have been important.

Commenting on early collaborative work, one interviewee from Clyde River suggested that outside agencies "gave us some ideas, and they gave us not only the ideas but they" had "helped us out" because "in those days we didn't really have an idea about exactly what we want...what was in the law, you know what was in the agreement with the federal government…you know those ideas were new to me, and we didn't know anything about those things" (Interviewee #1, personal communication, 2010). This learning also occurred across other levels of organization.

Engagement and learning may take place at higher level organizations. One example of this involved the Canadian Biosphere Reserves Program who engaged with biosphere reserve communities in Canada. One participant noted that:

> one of the things that we discussed towards the end and we had had a conversation with the First Nations participants in the biosphere reserves and they had raised the issue that the role of First Nations (notionally they support the biosphere reserve program and it feels very compatible for them). Where it's problematic for them is where it has to do a little bit with self-determination and being able to choose your role and what it looks like. You don't have as much flexibility in that because it is an international program (Interviewee #7, personal communication, 2010).

It is also known that representatives from Clyde River and biosphere organizations attended meetings and had planned for a biosphere reserve for a number of years (Interviewee #8, personal communication, 2010). From interviews and documents, it is apparent that BRWG members and residents who were involved in the biosphere reserve planning learned a great deal about each other in the process.

Federal government workers also cited the great amount of learning which was required in order to make the NNWA a reality. For example one interviewee characterized the process as a "learning experience." One additional example, of learning was the generation of knowledge about the social and biophysical importance of the area. This process occurred early on in the Igalirtuuq Initiative, and has continued throughout. According to one interviewee who was closely involved in the creation of the Igalirtuuq Conservation Plan (1990), local knowledge about the importance of Isabella Bay for bowhead whales was first shared with researchers who

then undertook further interdisciplinary research about the bowhead whales at Isabella Bay (Interviewee #11, personal communication, 2010). According to Myers (1990, pp. 1), a breadth of knowledge about the area was generated early on (Myers, 1990), writing that "by the time I arrived in Clyde River (June 1988), it was hard to tell where any boundary existed between formal scientific knowledge and local or traditional knowledge."

In addition to this, prospects for continued knowledge generation were seen as important in potential CMEG. As an example, with reference to the potential biosphere reserve designation, one local interviewee expressed interest in long term environmental monitoring suggesting "we can put it into our knowledge and say 'yes we have these things' and forty years later 'we had these things but they died'" (Interviewee #1, personal communication, 2010). It is also evident in the IBA that the importance of learning through governance extends beyond knowledge about biophysical features to include topics of socio-cultural importance (Environment Canada *et al*., 2008). For example, the IBA requires that "At a minimum, Wildlife Areas of Importance to Inuit reports shall include the location of each such Area and a description of its wildlife resources and their importance to Inuit" (Environment Canada *et al*., 2008).

5.3.4 Benefits of CMEG

One particularly important condition for CMEG which was identified was the importance of providing and clarifying its potential benefits, especially at the local and regional levels. This condition may refer to anything from local employment opportunities at the local level, to numerous other benefits including rights to establish businesses, core funding, compensation and so on (Environment Canada *et al*., 2008). Two federal government employees spoke of the importance of making the tangible benefits of collaborative multi-level environmental

governance known, especially at the local level, and the importance of framing potential CMEG accordingly (Interviewee #8, personal communication, 2010; Interviewee #9, personal communication, 2010). It was suggested by one interviewee that the way that potential benefits of CMEG are framed may significantly affect the potential success of the initiative at the IBA phase of establishment (Interviewee #8, personal communication, 2010). The distribution of costs and benefits may directly influence political support for CMEG.

5.3.5. Flexibility

It appears that participant flexibility, as opposed to rigidity, is important in achieving a successful CMEG arrangement. Using the Inuit IBA as an example, it appears that without a willingness to deviate from rigid top-down approaches to establishing a governance arrangement, the NNWA initiative would have likely failed prior to the conclusion of the Inuit IBA. This applies primarily to the scope of issues to be addressed in negotiations. Interestingly, this appears to be a situation where the use of legal tools (i.e. through the NPL) aided in increasing the flexibility of government institutions. From the perspective of the biosphere reserve initiative, some greater flexibility in the requirement for grassroots nominations may help to encourage successful CMEG (Example needed). Additionally, the willingness to reinterpret the biosphere reserve nomination and implementation process concept from a local and regional perspective may also contribute to flexibility.

This section suggests that there are several variables which are of importance to CMEG formation, but were not included in the CMEG arrangement formation framework (Chapter2). These can be viewed as a direct contribution of this research. These variables include: early collaboration, leadership, learning, benefits, and flexibility.

CHAPTER 6: DISCUSSION AND CONCLUSIONS

6.1 Introduction

This chapter discusses the main findings of this thesis, and provides some thoughts on how they pertain to the literature reviewed. Discussion focuses around the following themes: CMEG arrangement participants and formation processes, the revised framework of variables for CMEG, important variables, and the history and future of the ICI.

6.2 CMEG Participants and Formation

In line with the governance literature reviewed, numerous formal and informal participants were involved in the ICI over time, representing different levels of organization. These included: two local organizations, of which one was concerned primarily with the site level; a regional Inuit organization (and subsequent indirect involvement from adjacent local level organizations); a territorial government agency, which appears to have given way to a territorial Inuit organization; several different federal government organizations which appear to have given way to a single government agency; as well as national level NGOs with links to international agencies, which appear to have ceased participation in the CMEG arrangement.

Of additional importance has been the creation of several multi-level collaborative institutions such as the NWMB and the Ninginganiq ACMC. This exemplifies the implementation of cooperative management arrangements. This observation is in line with environmental governance theory which argues that top-down approaches to governance associated with the nation-state have given way to multi-level process which may also be regional or international (i.e. Sampford, 2002). With this being observed, it should also be noted

that collaborative approaches to management may also take place exemplifying collaborative, and or multi-level governance arrangement processes. In other words, a community-based governance arrangement formation may form the basis of a process which is also supplemented by approaches which entail regional and national negotiation.

Several different governance arrangement formation approaches can be said to have characterized the ICI over time. Prior to any non-local involvement, the Inuit appear to have governed the site of the present NNWA, and the surrounding area. Corresponding with collaborative research about whales, and an expressed interest by the local hunters and trappers, a community-based approach to planning for conservation was undertaken which involved support from a non-local NGO. This confirms the potential importance of environmental governance which goes beyond the local level (Berkes, 2002). In addition to this, it demonstrates a community-based approach to governance planning which involved non-local organizations in facilitating community-level resources (Dressler *et al*., 2010). Following some fairly informal participation from a broad range of stakeholders, the community-based approach came to characterize processes undertaken between the local steering committee and the CWS.

Negotiations and planning which took place primarily between the local steering committee and the CWS, eventually resulted in a proposed management agreement involving several territorial and federal government agencies and Inuit organizations. However, this approach appears to have been inappropriate upon requirement of approval by regional and territorial Inuit organizations that had become further empowered through the NLP. This seems to confirm that community-based approaches to governance face challenges when applied beyond specific spatial and socio-political conditions (Dressler *et al.,* 2010). Analysis suggests

that some high-level planning was needed in order to set the terms of reference for the governance arrangement.

As suggested by Young (2002) multi-level governance, may require higher-level institutions to act in the interest of those at lower levels, especially when it comes to empowering local institutions and protecting rights. As a result, it appears to have become necessary to take a multi-levelled approach to establishment and formation of the NNWA. With input from multiple-levels gathered through an Inuit IBA process, a co-management arrangement was agreed upon which involved the local, regional, territorial, and national level organizations and agencies. Interestingly, the significant representation of government agencies which was present in the draft management agreement appears to have given way to a significant representation of Inuit organizations under the Inuit IBA, suggesting that Inuit institutions have gained increased legitimacy.

These observations appear to represent many elements of the governance theory identified in the literature review. This includes: the participation of non-state actors, a tendency toward multi-level and multi-scale approaches, as well as the presence of pre-identified governance approaches on the ground. The process of governance arrangement formation represents a layering of these different approaches. With regards to furthering the proposed biosphere reserve, it is likely that a process similar to, or building on, the establishment of the NNWA would be necessary. In addition to this, a biosphere reserve or other similar arrangement could include agencies which were not signatories to the Inuit IBA such as the Government of Nunavut and the DFO. The variables and conditions of likely importance to such a process have been explored in the CMEG formation framework.

6.3 Framework for Understanding CMEG

The framework for understanding CMEG arrangement formation proved useful in identifying numerous conditions for successful CMEG in this case study. According to this analysis, both the pre-identified and emergent variables and conditions are seen as being important to the case study, and together comprise a revised framework for understanding CMEG (Table 7).

While all of the variables and conditions are seen as being of importance to the case study, the most noteworthy are thought to include: the legislation, policy, and political support variable, specifically, the enabling legislation, political support, and leadership conditions; the roles and responsibilities variable, specifically, the early collaboration and respect for Aboriginal rights conditions; and the human and financial resources variable, specifically, the financial resources condition. These variables and conditions are seen as being of most obvious importance for CMEG arrangement formation in this case study, and are each discussed below.

6.3.1 Legislation, Policy, and Political Support

6.3.1.1 Enabling Legislation

Having legal tools which match the goals and objectives of the initiative is seen as being one of the most important variables for CMEG in the ICI. This is because formal legal status was seen as providing legitimacy to conservation designations. As an example of this, it was noted several times by participants that the NWA could provide legal protection for the site, whereas the biosphere reserve could not (Interviewee #12, personal communication, 2010). In addition to this, the legal establishment of a NWA, or similar designation, was seen as a prerequisite for inclusion in further environmental governance initiatives. The NLP legislation also appears to

provide more legitimacy to community conserved areas in Nunavut as well as to other Inuit and collaborative institutions.

6.3.1.2 Political Support

Political support from multiple levels and organizations is seen as being of much importance to the success of the ICI. Local political support is seen as being especially important for CMEG, due to the aforementioned importance of early and ongoing collaboration. Political support also appears to be important at higher and more formalized levels, such as through negotiation of the Inuit IBA for Migratory Bird Sanctuaries and National Wildlife Areas in Nunavut. In this case, it appears that without support from any one of the several signatories, the Inuit IBA process may have broken down. Also noteworthy, is the potential for local political support to secure additional support from existing or emerging powers within processes of environmental governance formation.

In the case of the biosphere reserve, it appears that basic political support existed for the concept at multiple levels, but that priority was shown for the NWA. This case study suggests that in the future, local support for a biosphere reserve, or another other governance mechanism, could also increase support from other potential participants and authorities. Leadership is also thought to be a key condition in ascertaining such political support.

6.3.1.3 Leadership

Both formal and informal leadership is seen as being important to the formation of CMEG arrangements. While formal leadership may be designated or identified in an

organization's mandate, it may be difficult to document informal leadership. With regards to the establishment of the NWA, formal leadership has been attributed to those at different levels including: resident and Inuit organizations, specific government departments, and specific NGOs. With regards to the biosphere reserve initiative, for quite some time, the BRWG took a formal leadership role in furthering potential biosphere reserves in Canada however, over the time the formal leadership responsibility has shifted towards the local level. This suggests that leadership for some CMEG establishment initiatives may need to come from the grassroots level. With this being said, informal leadership has been shown by several key individuals in the Canadian biosphere reserve community. Perhaps formal leadership for the establishment of biosphere reserves in Canada could contribute to successful CMEG arrangement formation, as it appears to have done in the NNWA via the CWS.

6.3.2 Roles and Responsibilities

6.3.2.1 Early Collaboration

The early collaboration which took place between residents, researchers, NGOs, and government, appears to have created a situation favourable to CMEG formation, despite challenges which were met along the way. This seems to have enabled shared goals and objectives and encouraged political support from multiple levels. In addition to this, the ongoing community-based approach taken by the CWS seems to have helped ensure that the community interests were considered prior to multi-level negotiations.

6.3.2.2 Respect for Aboriginal Rights

Respect for Aboriginal rights was instrumental in setting the stage for collaborative approaches to governance formation. In addition to this, it is seen as essential in securing necessary political support for the ICI, as well as meeting legal obligations under the NLP.

Within the case study, it appears that early on, those at the local and regional levels were cautious so as to avoid potential infringements on Inuit rights through the ICI. Respect for Aboriginal rights also appears to have been very important in formal negotiations for the Inuit IBA addressing Migratory Bird Sanctuaries and National Wildlife Areas in Nunavut. As one personal communication (Pelly, 2010) suggested, it was a primary concern of Nunavut Tunngavik Inc. negotiators that the Inuit IBA be approached in accordance with developments made through the NLP. It seems unlikely that the multi-level negotiations would have succeeded without basic recognition and respect for Inuit rights in Nunavut.

6.3.3 Human and Financial Resources

6.3.3.1 Financial Resources

Securing financial resources necessary for implementation of the NWA appears to have been critical in the success of this case study. This is thought to be important for obvious practical reasons relating to implementation, but may also be very important in ensuring that the responsibility and accountability which accompanies decision-making is fairly distributed. Within the context of the ICI, core funding to support newly gained responsibilities is seen as being critical for success given the relative lack of financial resources available otherwise in this case study. With regards to the biosphere reserve, some form of core funding may also be quite important for potential success.

Based on the analyses conducted, these aforementioned variables and conditions appear to have been important to the success of the ICI CMEG arrangement formation process. While all variables are seen as being important to the final success, these are discussed because they are seen as being particularly noteworthy, and perhaps crucial, to this case study.

6.4 The History and Future of the ICI

Based on analyses, the ICI is seen as a successful CMEG formation initiative which has set a precedent for others which may follow. While the biosphere reserve has not yet been nominated, the work of the ICI participants has placed the NNWA in an excellent position for consideration as a component of a larger CMEG initiative of this type. With this being said, the framework of variables for successful CMEG arrangement formation may be of interest to those who wish to undertake any future work towards the goals of the ICI. While many of the goals and objectives which were associated with the ICI have been addressed through the Inuit IBA for NWAs and Migratory Bird Sanctuaries, further governance initiatives may very well be held up to the standards set in this precedent Inuit IBA.

Speaking more generally, this thesis also suggests that having the right conditions for CMEG formation in place, can be a long, complicated, and fragile process, involving much hard work by multiple participants. This may be especially true in the relative absence of conflict. As such, despite the usefulness of having a framework for CMEG, it does not appear to be something that can be transplanted from one case to another. This is because, attention to historical and spatial context is also very important in understanding the formation of CMEG arrangements.

6.5 Concluding Comments

This research has asked: **what variables, and conditions, are needed to establish a collaborative multi-level environmental governance arrangement?** With regards to process and participants of CMEG formation, this research suggests that a blend of different governance approaches including: self-organized, community-based, and co-operative negotiations, can lead to CMEG formation. The participants also include a variety of non-government and government institutions. With reference to specific variables which contribute to successful CMEG, this research suggests that while all of the variables which were identified are of likely importance to the case study, the aforementioned six conditions appear to have been especially important given the particular historical and spatial context of the initiative. These two analyses taken together may provide a useful conceptual basis for better understanding the process of CMEG arrangement formation. It was also found that the use of ATLAS.ti v.6.2, or other similar software, may help to organize and interact with qualitative textual data in an efficient way.

6.5.1 Objectives Addressed

This thesis has successfully meets the research objectives set out (Chapter 1), by using the proposed research methods (Chapter 3). The research objectives are as follows:

1) Propose a framework for understanding how collaborative multi-level environmental governance arrangements emerge, including the key necessary variables and conditions;

2) Empirically describe the formation and function of collaborative multi-level environmental governance arrangement; and

3) Identify important variables and conditions for the emergence of collaborative multi-level environmental governance

These research objectives have been met in the following ways. Firstly, in order to propose a preliminary framework for understanding how multi-level environmental governance arrangements emerge, I reviewed literature from several pertinent disciplines, including some interdisciplinary literature. I found several theoretical governance approaches which are of use in understanding CMEG, including self-governing, top-down, collaborative, multi-level, and ecosystem-based. Many or all of these governance structures can be found at work within CMEG arrangement formation process. The review has also identified an extensive list of potential variables and conditions which were thought to influence CMEG arrangement formation (Chapter 2). These included the following variables: goals and objectives; legislation, policy, and political support; human and financial resources, roles and responsibilities, and relationships and processes. Key authors included: Dowsley, Clark, Slocombe, Berkes, Reed, Singleton, Young, and Natcher.

Secondly, in order to empirically describe the formation and function of CMEG in the ICI, this thesis has described the key ICI participants over time, organized using spatial characterizations (i.e. site, local, regional) (Chapter 4). Participants ranged from the local to the national levels, and some multi-level organizations have been involved in the ICI. The research characterized the various governance arrangement approaches taken over time (Chapter 4). Six distinct CMEG governance arrangement processes were identified in this case study.

Thirdly, in order to further identify important variables and conditions for the emergence of multi-level environmental governance, this thesis has used these analyses to test the CMEG formation framework against the case study (Chapter 5). In doing so, it has confirmed the importance of the pre-identified variables and conditions, and it has also identified an additional variable from the case study: leadership. It also identified five additional conditions for CMEG

including: benefits of CMEG, early collaboration, knowledge co-generation, and flexibility (Chapter 5). In doing so, this thesis has shown that it is important to be mindful of theory regarding governance structure, as well as specific historical and social context in understanding collaborative multi-level environmental governance formation.

6.5.2 Limitations

There are several limitations to this thesis which should be noted. By taking CMEG as a focal point, it is recognized that this research fails to provide equal consideration for alternative governance approaches. In addition to this, providing a detailed account of the Inuit IBA process, and some decision-making at the local and regional levels has proven to be difficult due to the confidential nature of the Inuit IBA processes, as well as reliance on archival documents and local interviews (as opposed to regional or territorial). It is also thought that language barriers made precision in discussing historical events somewhat difficult, especially where the processes were characterized by technical jargon. Prioritizing the variables for CMEG by importance was quite difficult due to the exploratory nature of this research and time and resource constraints. With this said, future research may benefit from the use of research methods directed towards addressing these limitations.

6.5.3 Contributions

This study contributes to our understanding of environmental governance initiatives as they evolve within their broader economic, social, and political contexts. It also focuses primarily on the governance arrangement formation process, which sets the stage for future decision-making, and potential future governance arrangement formation processes. By

developing and refining a framework of variables and conditions for CMEG formation, it makes a conceptual contribution to research concerned with environmental governance arrangement formation. It is hoped that the findings will be of interest to participants in the ICI, as well as other similar initiatives.

6.5.4 Future Research Opportunities

Stemming primarily from the recent establishment of the NNWA, several future research opportunities are apparent. The first concerns the actual implementation of the CMEG arrangement for the NNWA, and a second, concerns the potential evolution of the existing NNWA into further collaborative, and or multi-level environmental governance networks, such as a biosphere reserve or a marine management network. Recent controversy over proposed seismic testing adjacent to the NNWA suggests a potential reason to pursue such further planning (Nunatsiaq News, 2011). In addition to these research opportunities, it is recommended that the strategy of developing and revising a conceptual framework of variables and conditions for CMEG be applied to other case studies in order to further test its merit for understanding environmental governance formation processes.

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APPENDIX A

John Kearns Interview Guide –History of conservation initiatives in Kangiqtuqaapiq/Clyde River

-Go over consent form, ongoing right to withdraw consent

-Request permission to audiotape interview (transcripts may be provided for review and edit upon request an in English or Inuktitut)

1) Briefly, how have you been involved in the Igaliqtuuq conservation initiative? Including the protected area for bowheads and the biosphere reserve).

Beginnings...

2) How did the protected area and biosphere reserve initiatives begin?

3) What were the goals of the protected area and biosphere reserve in the beginning?

4) Who was involved in starting these conservation initiatives?

5) Early on, what type (s) of information were the protected area and biosphere reserve proposals based on?

6) How were decisions made about the protected area and biosphere reserve in the beginning?

Underway...

7) What were the goals of the protected area and biosphere reserve once they got underway?

8) Who led these initiatives once they were underway? Did this change?

9) Did the types of information used in decision-making change over time?

10) How were decisions made about the protected area and biosphere reserve once these initiatives were underway?

Interests of participants and fit...

11) Did the goals of different participant organizations complement each other? Did this change**?**
12) How did the protected area initiatives (NWA/BR) options fit with each other, and the local expectations/interests?
13) How did the protected area initiatives (NWA/BR) options fit with the regional expectations/interests?

Biosphere Reserve...

1) Can you think of any challenges to the biosphere reserve plan?
2) Are local or other organizations still interested in the biosphere reserve plan, if not what affected these plans?
3) How has the biosphere reserve proposal fit in with other conservation initiatives?
4) How has the Nunavut final agreement affect the BR proposal?
5) Why do you think that a biosphere reserve was not created up to this point?
6) Do you think it could be created in the future? (why/why not)
7) If not, do you see any other kind of conservation/sustainability initiative instead (why/why not)?
8) Is there anything about the initiative you would like to add to this information?

Other...

9) Do you have any questions you would like to ask or have answered relating to this study?

Thank you very much for your time and insight!

APPENDIX B

Pre-identified Categories and Variables

Categories	**Variables**	**Codes**
Goals and objectives	Common/compatible goals	1_Common interests
	Multiple goals	1_Multiple interests
Legislation, policy, and political support	Enabling legislation	2_Legal
	Enabling policy	2_Policy
	Political support	2_Political support
Human and financial resources	Financial Resources	3_Financial Resources
	Human Resources	4_Human Resources
Roles and responsibilities	Defined roles and responsibilities	5_Defined_RR
	Distributed roles and responsibilities	5_Distributed_RR
	Recognition of Aboriginal rights	6_Rights
Relationships and processes	Cross-scale linkages	7_Cross-scale
	Space for multiple worldviews	7_Multi_WV
	Discourse and Language	7_Discourse
	Problem solving	7_Conflict resolution

Emergent Categories (italicized) and Variables

Categories	**Variables**	**Codes**
Legislation, policy, and political support	Leadership	A_Leadership
Human and financial resources	Benefits of CMEG	A_Benefits
Roles and responsibilities	Early collaboration	A_Local_suppport
Learning	Knowledge co-generation	A_Learning
	Flexibility	A_Flexibility