

Sustainable Development and Environmental Security in the Western Canadian Arctic

Research Report

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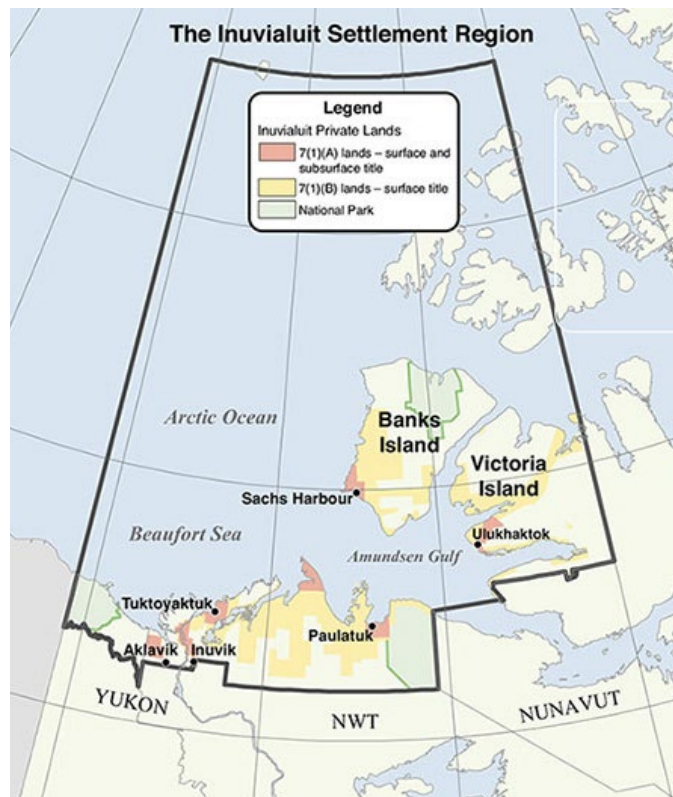
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1. Introduction

Climate change is putting unique ecosystems and cultures at risk of severe consequences (IPCC 2014: 12). Canada's communities in the Far North are typically more vulnerable to environmental pollutants and the impacts of climate change than their counterparts in southern Canada (Stoddart & Smith 2016). Inuit communities have been adapting to changes in their environment since time immemorial, but they are now facing hurdles they have never experienced before (Pearce et al. 2015). The majority of Arctic residents live in small to medium-sized communities that rely on climate-sensitive practices including hunting, fishing, herding, and forestry (Ford & Furgal 2009). As the region's environment changes and the use of traditional practices such as subsistence living becomes limited, new types of behaviours, policies, and partnerships will be necessary (Ford et al. 2010). Due to the influences of colonization and globalization, however, implementing meaningful change can be a difficult task for policymakers and communities situated within the framework of the modern Canadian political economy.

Climate change in the Canadian Arctic thus poses a challenging problem for policymakers and their constituents. Significant environmental changes in the Arctic region create new social issues, economic opportunities, and challenges for all Arctic nations and their peoples. The creation of an 'Arctic Paradox' – the combined fear of climate change and anticipation of resource development – raises questions about how the various levels of Canadian society will respond to the need for socially responsible policies that help northern communities adapt to the consequences of environmental changes as well as manage new economic interests in the Arctic.

This report highlights the findings and main arguments of a study conducted from 2017-2018 that identified and examined interlinkages between climate change and sustainable development, environmental security, and adaptive capacity in two communities in the Inuvialuit Settlement Region (ISR): Inuvik and Tuktoyaktuk. The ISR is located in Canada's western Arctic and includes significant portions of the Beaufort Sea coastline. It was established in 1984 following the signing of the Inuvialuit Final Agreement between the Inuvialuit and the Government of Canada. Inuvik, the largest community in the ISR, is located on the East Channel of the Mackenzie Delta. It is a regional administrative centre that is home to Indigenous, local, regional, territorial, and



federal government offices. Tuktoyaktuk is a second, smaller Inuvialuit community, located on the coastline of the Beaufort Sea.

Both communities have experienced significant changes to the local climate and landscape. These changes have resulted in a variety of impacts on the people and ecosystems of the region. In addition to the challenges that climate change poses, both communities are also struggling with other social problems including mental health challenges and food insecurity. Moreover, the region is expected to contain large oil and/or gas deposits, both onshore and potentially under the Beaufort Sea. Oil and gas companies have brought economic boosts to both communities during times of exploration and testing, but the abandoned work camps on the outskirts of Tuktoyaktuk is a testament to the unstable nature of the resource economy in northern Canada. Therefore, this study sought to understand how leaders in the communities of Inuvik and Tuktoyaktuk perceive climate change and define sustainable development, including in relation to oil and gas development. A central question guided this research: How do leaders in these communities hope to address the human security concerns and inevitable changes that are resulting from both the environmental challenges they are experiencing and the economic demands of a Canadian economy that is increasingly turning its attention to the resources of the North? Perceptions and policies regarding sustainable development were central to this exploration.

Over the past decade or so, the rise of ‘sustainable development,’ as a legitimate response to environmental and social concerns on the international and domestic levels, has refocused policy approaches to development. This has had an influence on environmental politics and community development by concentrating policy debates on the concept of ‘sustainability,’ ranging in scale from the local level to the global level (e.g. the UN Sustainable Development Goals). It has significantly raised the importance of developing policies that recognize ecological, social, and economic aspects. Issues can begin to arise, however, when understandings of what sustainable development means differ across distinctive geopolitical regions and between levels of governance. Additionally, when sustainable development is framed at the federal level as a matter of environmental security (that it is not secure if it is not sustainable), policy approaches that do not acknowledge what sustainability means to other levels of governance could have potentially negative impacts on local communities.

Similarly, environmental security has developed as a field of study in relation to the perceived impacts of climate change on global environments, resources, and political relations. Climate change is having a noticeable impact on the Arctic environment and its communities. Both the impacts of climate change and the recognition of it as being a global issue have not only altered the opportunities for and threats to communities in the Arctic, but they have also changed global and domestic environmental politics.

Sustainable development and environmental security are twin pillars of concern in policy and strategy documents orienting the Canadian government’s approach to the Arctic. These documents include the federal government’s former 2009 *Northern Strategy*, the Department of National Defence’s (DND) 2017 defence policy *Strong, Secure, Engaged*, and the 2019 *Arctic and Northern*

Policy Framework. These documents present various ways in which the federal government has viewed security in the Canadian Arctic. As I will discuss further, security in the human context (i.e. human security) underlines these policies. Canada's previous *Northern Strategy* positioned social and economic development as a key priority for all decision making, framing economic development in the North in relation to promoting Canadian sovereignty and establishing the environment as being a crucial factor influencing national security. The more recent *Arctic and Northern Policy Framework* underlines the need for sustainable development, but the framework also takes it a step further by highlighting the importance of the environment in traditional lifestyles in the North, framing its protection as being existentially important, and identifying the threats that climate change poses for northern communities. From another perspective, DND's *Strong, Secure, Engaged* approached environmental security by analyzing the threats that climate change poses for Canada's national security in the region in relation to its allies, its partners, and Canada's northern communities.

The Government of the Northwest Territories (GNWT) has also outlined various research priorities in its *Knowledge Agenda: Northern Research for Northern Priorities* (2017) document, which recognized the need for research focused on improving community adaptation and resiliency within a transitioning environmental and political landscape. The *Knowledge Agenda* acknowledged that the GNWT "requires sound, reliable, evidence-based information to make decisions," and that it "faces major social, political, economic and environmental changes, which require various types of knowledge to address." My research thus sought to contribute to the GNWT's Sustainable Communities strategic priority (see Government of Northwest Territories 2017).

With this strategic priority in mind, the central objective of this research was to advance our understanding of (1) the intersection of environmental security and sustainable development in the Canadian Arctic, and (2) the constraints that local communities may be experiencing when seeking to benefit from emerging opportunities, due to competing notions of sustainable development and environmental security. Through interviews with local leaders in Inuvik and Tuktoyaktuk conducted in 2018, this study explored community participation in and input on current and future resource development and sustainable development policies in the Beaufort Sea area, particularly in terms of how local leaders from Inuvik and Tuktoyaktuk view the challenges they face related to climate change and how they define the idea of sustainable development in the context of their region. The findings of this study contribute to an improved understanding of the receptiveness (potential economic or social benefits, security, safety) and resistance (environmental concerns, negative community impacts) of stakeholders to resource development and sustainable development policies.

The Sustainable Development Concept

Recent international debates have acknowledged the irreversible impacts that humans have had on Earth's environment, and responses to environmental degradation and climate change have been commonly focused on mitigation and adaptation (Blewitt 2008). The Industrial Revolution

and capitalism's requirement for continual economic growth have intensified a host of environmental and social concerns, which have led to the emergence of "sustainability" and "sustainable development" as critical concepts in contemporary politics (see Caradonna 2014; Blewitt 2008). According to Robinson (2004), the concept of sustainable development emerged in the early 1980s "as an attempt to bridge the gap between environmental concerns about the increasingly evident ecological consequences of human activities and socio-political concerns about human development issues" (Robinson 2004: 370). Sustainable development has become synonymous with the idea of responsible growth and the attempt to reach an equilibrium that meets the needs of both society and the natural environment. While this may, in fact, be the goal, the literature surrounding sustainable development – as well as what it means and how it should be measured – is diverse and complex. What sustainable development means to the author, researcher, or state depends partly on their own economic, political, and environmental contexts, their political opinions, and their philosophical/religious conceptions of the relationship between humans and the environment. Sustainable development has, however, become an internationally recognized concept and approach in global environmental politics.

The World Commission on Environment and Development's landmark 1987 report, *Our Common Future* (also known as the Brundtland Report), defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations 1987: 43). Although this report helped to bring the concept of sustainability to the forefront of international and national development policy discussions, various scholars argue that the vagueness of the definition of sustainability weakens the concept: it lacks practicality, everyone can agree to it, and it can mean different things to different people or groups (Robinson 2004; Davidson 2011; Lindsey 2001; Mebratu 1998). Robinson has also acknowledged, however, that the concept "could profit from constructive ambiguity" (Robinson 2004: 374), especially within the diplomatic community.

Authors such as Kate Rigby (2017) have argued that the three interdependent pillars of sustainable development noted in the Brundtland Report and promoted by the UN – economic development, social development, and environmental protection – led to widespread acceptance of the popular "triple bottom line" concept. Rigby's (2017) primary concern is that this leaves economic concerns to take precedence over social and environmental issues. Kathryn Davidson agrees that this approach actually means "sustained economic growth" consistent with neoliberal ideals: that the world economy can and should continue to grow as long as resources can be replaced at a faster rate than they are being used (Davidson 2011: 351). This approach rejects environmentalists' opposition to growth and development and instead promotes market incentives to care for the natural environment. Davidson suggests that "sustainable development has become, in essence, a version of environmental protection that does not pose a threat to the current economic structures of modern industrial societies" (Davidson 2011: 352). Radical approaches to sustainable development highlight contradictions in the concept itself, suggesting that sustainability and development are mutually exclusive concepts and that social and environmental considerations should take priority over economic growth. This informs a different understanding

of sustainability: that policy-makers must place restraints on economic operations to preserve the environment, encourage social justice, and allow for an economy that is not based on permanent growth (Davidson 2011; Robinson 2004).

Although the evolution of the concept has yielded competing definitions (see Mebratu 1998), and the Brundtland Report's vagueness has led to successive concepts meant to better implement policy (see Jacobs 2013; United Nations 2018), sustainable development remains the key principle in international environmental policymaking. The 17 Sustainable Development Goals (SDGs) of the United Nations, set in 2015, are indicative, serving as a key aspect of the UN's 2030 Agenda for Sustainable Development, which the UN claims to be a "new plan of action for people, planet and prosperity" (United Nations 2018; IISD 2018). Elements of the UN Agenda can also be seen in Canada's Federal Sustainable Development Strategy (FSDS) for 2016-2019, known as *Achieving a Sustainable Future* (see Government of Canada 2018).

Various experts have applied the UN SDGs in the context of the Arctic (Chater 2018), with the SDGs featuring prominently in Finland's Arctic Council chairmanship (Koivurova 2018). Sustainable development has thus become a key driving principle in international and domestic environmental policy, particularly in Canada and in the broader Arctic policy environment.

However, conflicting development priorities advanced by different levels of governance can create tension (Happaerts 2012). Thus, it is important to understand the issues surrounding the implementation of this concept in reality. This study therefore examined conceptions of sustainable development at the local level, especially as they arise in discussions of environmental security. A tension exists between economic development and environmental protection, which has the potential to place impactful constraints on local communities. If left unacknowledged, these constraints could restrict communities from taking advantage of the few opportunities available to them in the Arctic.

Copenhagen School of Security Studies

Used as a basis for understanding "security" in this study, the Copenhagen School's (CS) approach to security studies offers an analytical framework for understanding the relationships and tensions between different levels of analysis as well as their interactions, from the lowest level of the individual all the way to the highest level of the international system. The CS has effectively 'widened' the traditional security agenda by arguing for an intersubjective understanding of security that includes societal, economic, and environmental 'sectors' of security alongside the traditional military and political sectors. These five sectors make up the widened security perspective of the Copenhagen School and are perceptual lenses meant for focusing on different issues in the same world (Buzan, Wæver, & de Wilde 1998).

According to Buzan, Wæver, and de Wilde (1998), the sectoral approach laid out within their framework is necessary for three reasons: (1) the use of sectors allows for traditional security studies to be integrated into their wider framework; (2) the sectoral approach mirrors what actors already do when they add the term 'security' onto sector designators (economic security, etc.) in

an attempt to tactically raise the priority of a political issue; and (3) the CS school provides a way to recognize the different and common qualities of security, as well as the unique actors, referent objects, dynamics, and contradictions that need to be understood within each sector of the wider security agenda. It is important to understand the different features of security within each sector because “sectors are distinctive arenas of discourse in which a variety of different values (sovereignty, wealth, identity, sustainability, and so on) can be the focus of power struggles” (Buzan, Wæver, & de Wilde 1998: 196). Using sectors as different lenses to observe security issues helps to identify specific types of interactions. Tactical political moves that seek to elevate the priority of certain political objectives to the level of security issues can have deep political consequences if successful, and the sectoral approach provides a way to understand relationships among sectors that exist within the widened and integrated field of security (Buzan, Wæver, & de Wilde 1998).

For example, tensions or conflicts between states that seemingly arise due to relative military strength may in fact turn out to be driven by underlying concerns in the other four sectors. Separating security concerns into sectors is helpful for determining patterns of vulnerabilities and threats, differences in referent objects and relevant actors, and different relationships that influence “territorializing and deterritorializing trends” in the international system (Buzan, Wæver, & de Wilde 1998: 167). According to Buzan, Wæver, and de Wilde (1998), threats and vulnerabilities arise as security issues in many different parts of society, within and outside of traditional military-related understandings of security. In order to be considered a security issue, however, the issue in question must meet a defined criterion that prioritizes it over normal political considerations. Vulnerabilities or threats must be “staged as existential threats to a referent object by a securitizing actor who thereby generates endorsement of emergency measures beyond rules that would otherwise bind” (Buzan, Wæver, & de Wilde 1998: 5).

Environmental Security Sector

This study used the environmental sector as a perceptual lens to further our understanding of how the natural environment affects decision makers’ perceptions of the Arctic, and the potential implications for communities related to how policy-makers have framed environmental security issues to reach certain political goals on both the domestic and international levels.

Much like sustainable development, environmental security is a human-centred concept. The framing of the consequences of environmental degradation and climate change as existential threats to Canada, its Arctic region, and its communities has had significant implications for all levels of society in Canada’s Arctic. According to Klubnikin and Causey (2002), environmental security emerged as a concept after society gained a better understanding of the multidimensional aspects of the natural world and its role in local, national, and global economies. The presence of the environment in the affairs of states was first acknowledged during the Cold War, and greater understanding of the intersection of states and the transboundary dimensions of natural resources relative to peace and security only began in the early 1970s (Klubnikin & Causey 2002). The release of the Brundtland Commission’s *Our Common Future* report in 1987 launched an era of

global environmental thought and action, as it institutionalized the relationship between human security and the environment and promoted the idea that sustainable development is only possible in an atmosphere of peace and security (Klubnikin & Causey 2002; Dalby 2013). Additionally, as Simon Dalby (2013) has argued, the environmental security relates to the obligation of states to protect the human security of their peoples under the principle of the Responsibility to Protect (Dalby 2013; ICISS 2001). For Myers (1993), environmental security is the collectivity of citizens' needs that determine their well-being, including access to water, food, shelter, health, employment, and protection from harm. Put more simply, Stokke (2014) has defined environmental security as “concerning the ability of the natural environment to sustain human activities” (Stokke 2014: 122).

This transition of environmental politics from ‘low’ to ‘high’ politics in the Arctic has led to the adoption of environmental protection as the main platform for functional cooperation, leading to new levels of cooperation and stability in the region (Heininen 2016). This includes a dense network of Indigenous actors, subnational governments, NGOs, and academic communities that shape the discourse alongside states (ADAC 2019; Heininen 2016). International cooperation in the region has since had a context-specific focus on environmental security, defined by Huebert, Exner-Pirot, Lajeunesse, and Gulledge as “avoiding or mitigating acts leading to environmental damage or deterioration that could violate the interests of Arctic states and their populations, in particular their northern and northern Indigenous peoples” (Huebert et al. 2012: 15; Nord 2019).

Sustainable Development and Environmental Security: Key Connections

The rise of ‘sustainable development’ as a legitimate response to environmental and social concerns on the international and domestic levels has refocused policy approaches concerning development. Scholars including Simon Dalby (2013) have acknowledged the link between sustainable development and environmental security and recognized the parallel international discussions surrounding resource management, environmental degradation, and development that led to the institutionalization of sustainable development in *Our Common Future*. The World Bank (1995) has tied the idea of environmental security to the concepts of intergenerational and intragenerational equity by arguing that environmental sustainability is closely connected with both generational concepts of equity. According to the World Bank (1995), when the wealthy consume more resources overall, the poor tend to rely on the direct exploitation of natural resources and may have no choice but to engage in unsustainable uses of environmental resources. As Buzan, Wæver, and de Wilde (1998) have noted, the concept of ‘sustainability’ is the ultimate form of environmental security, as it stages environmental and social issues as existential issues that some actors present as being issues of supreme priority to society’s survival; the term sustainability is often used in reference to the future. The definitions of sustainability and sustainable development lead to only two outcomes: either society changes to a system that provides current and future generations with the ability to survive, or the destructive actions of human society will impair it to the point of no return. By combining multiple existential threats and focusing on few future outcomes, whether society can shift to become more sustainable could be perceived as an existential issue in the environmental sector.

Climate change is having a noticeable impact on the Arctic environment and its communities. Various stakeholders in the region are working to overcome the challenges that climate change presents by finding ways to adapt to changes to both the Arctic's natural environment and contemporary global environmental politics. Both the impacts of climate change and the recognition of it as being a global issue have not only altered the opportunities for and threats to communities in the Arctic, but they have also changed global and domestic environmental politics (see UN SDGs and the 2015 Paris Climate Agreement). According to the findings of Huebert et al. (2012), most policy statements by Arctic states underlined the need to “maintain environmental security and sustainable development,” with both Canada and the United States making it clear that “the sustainable development of the region within their national control was a priority” (Huebert et al. 2012: 17). Huebert et al. (2012) found that this theme was prevalent throughout Russian documentation as well, with Russia explicitly claiming the “need to protect its Arctic environment to justify extending its control over both the lands and the waters of its Arctic region” (Huebert et al. 2012: 17). While it is important to acknowledge that Russia's activities point to a co-opting of environmental security by conventional ‘hard security’ actors, this study concentrated on the human-focused perspectives of the Canadian government and its Arctic communities.

Issues may begin to arise, however, when understandings of what sustainable development means differ across distinctive geopolitical regions and between levels of society. This has the potential to create significant issues for Arctic communities because experiences of climate change in the Arctic and what constitutes ‘sustainable development’ may vary at the local, regional, and state levels of governance. An environmental security narrative of sustainable development would suggest that a society is not secure if it is not environmentally, socially, and economically sustainable. This type of narrative at higher levels of governance, however, could impact the capacity of Arctic communities to respond to climate change due to the limitations it may impose on certain economic and/or social activities of interest to communities. This phenomenon is discussed further in chapter 3 in the context of participant perspectives on the idea of sustainable development from Inuvik and Tuktoyaktuk.

Potential Implications of Sustainable Development Policy in Arctic Communities

There has been significant research surrounding the various social, economic, environmental, and political vulnerabilities that local communities in the Arctic experience (Keskitalo 2008; Ford et al. 2010). The political power imbalance that exists between local communities and the federal government, however, could be impacting the ability of the territories and local communities to define sustainable development in a way that reflects the social, economic, and environmental needs and contexts of the people who live throughout different parts of the Arctic. While discussing the politics of social-ecological resiliency and transition management through technology, Smith and Stirling (2010) contend that ‘headline’ sustainability goals such as carbon reduction stem from conventional public policy arenas, but “more specific environmental, economic, and social criteria are hotly contested.” This, they argue, leads to questions about whose sustainability gets prioritized in a transition arena (i.e., the Arctic) (Smith & Stirling 2010). Power and politics play into

answering these questions (Smith & Stirling 2010), and it must be considered how these power relations influence how sustainability is realized in the Arctic region. This can be understood in the Arctic by observing the power differences between local communities and the federal government, as well as the imposition of global, circumpolar, and national definitions of sustainable development through policies that may have an impact on local communities. It is possible that the imposition of southern priorities and outside definitions of 'sustainable development' are impacting the adaptive capacity of communities in Canada's Arctic – and thus their resilience to risk, disaster, and change – in a region where local communities must constantly adapt to a changing environmental, political, and security landscape.

Various scholars have discussed the relationship between sustainability and resilience (Brown 2014; Perrings 2006; Marshall & Toffel 2005; Adger 2000), and there is a continually growing body of research focused on vulnerability and resilience in the Canadian and North American Arctic (Ford, Smit, & Wandel 2006; Furgal & Prowse 2009; Keskitalo 2008; Trainor et al. 2007; Furgal & Seguin 2006; Sakakibara 2017; Pearce et al. 2015). Much of the research concerning Arctic community resilience in regards to climate and societal changes has taken a social-ecological systems approach (Folke 2006; Berkes & Jolly 2001), with the *Arctic Resilience Report* also using this approach (Arctic Council 2016). The *Arctic Resilience Report* “uses the concepts of resilience and social-economic systems to provide a holistic view of the Arctic,” and resilience is defined as “the capacity to buffer and adapt to stress and shocks, and thus navigate and even shape change” (Arctic Council 2016: ix).

Adaptive capacity can be defined as “the possibility to respond to change and undertake certain adaptations in the process... [I]t describes the extent to which a system may decrease its vulnerability by learning and applying new economic, social, or political approaches to limit risks” (Keskitalo 2008: 10). While concepts such as resilience or adaptive capacity are often discussed in terms of responding to climate change, they can also be used to understand vulnerabilities brought on by other social, political, and economic influences, as well as the power dynamics that exist within a specific region (Keskitalo 2008) or interdependent relationship (Keohane & Nye 2001). According to Ford et al. (2010), the challenges that the Inuit are facing “reflect the sweeping socio-cultural changes in the second half of the twentieth century, as former semi-nomadic hunting groups were re-settled into centralized communities and incorporated into a colonial relationship with the Canadian state” (Ford et al. 2010: 179). This transformation of social and cultural interactions within many Inuit communities, as well as their current social and economic conditions, frames the context for how they will experience and respond to climate change (Ford et al. 2010). Keskitalo’s (2008) findings during a study on the impacts of globalization on climate change adaptation in the Arctic established that “general adaptive capacity should be analyzed in terms of the principle impacts of ongoing and anticipated economic, political and social changes on stakeholders’ livelihoods” (Keskitalo 2008: 184).

Thus, it is important to consider the substantial impacts of Indigenous communities’ economic and social integration into Canada over the past century. Canada’s history of colonization has had

countless impacts on Indigenous peoples, and this harmful legacy continues to negatively influence communities today (Simon 2016). The vast social challenges related to this colonial legacy include a loss of culture, language, traditional knowledge, and community and familial connections, which communities and governments at every level in Canada are attempting to address (Simon 2016). These social and political changes across the North not only frame how climate change is being experienced, but also the responses available to communities to adapt and build resilience.

2. Community-level Perspectives on Local ‘Threats’: Climatic, Social, and Economic Changes in Inuvik and Tuktoyaktuk

The Inuit are a diverse group of Indigenous peoples that span across four countries (Russia, the USA, Canada, and Greenland/Denmark). They have not only survived in one of the harshest environments in the world, but, in the words of a Northerner, they have “flourished.” Many of these groups have also been involved in successful trade and working relationships with Southerners. They also, however, have suffered from harmful colonial legacies throughout the last century. These include Canada’s residential school system, relocation programs, and the rejection of Indigenous consultation on resource extraction activities on their traditional lands.

The Inuvialuit, the group represented in this study, have a long and storied history in their region of the Arctic. While they share much with Inuit groups across the North, the Inuvialuit have their own understandings and traditional practices that are tied to the environment and ecosystem of the Mackenzie Delta and the Beaufort Sea coast. They have been adapting to environmental and climatic changes in this region for centuries. The Inuvialuit have also been rapidly adapting to societal and economic changes since the beginning of the whaling trade in the Beaufort Sea in the late 1800s. This context is important, and thus the climatic (environmental), economic, and societal changes that interview participants described will be highlighted here, including how some of these interwoven changes shape the priorities of their communities in terms of sustainable development and human security.

Climate Change

Climate change is impacting Inuvik and Tuktoyaktuk in a variety of ways. The primary concerns that the participants raised include increased coastal erosion, permafrost thaw, and increased slumping and shifts in the ecosystem due to “seasonal changes.” The representation of climate change – whether as a threat, a practical issue, or both – varied across all of the participants. The ways in which the participants described climate change were related to the types of change they have experienced, the urgency of that change to the participant, and the vulnerability they may or may not feel due to that change.

Increased coastal erosion, due to longer ice-free periods on the Beaufort Sea and the increasing strength of storms, is of significant concern to the residents of Tuktoyaktuk. Participants who are physically experiencing and dealing with the urgency of coastal erosion described it as a serious threat. According to many participants, the coast is eroding quickly enough that some individual homes along the coast have already been moved, and plans are being made to move others. The hamlet council is also discussing the possibility of physically moving the entire town further inland in the future. The fear that a large storm could wash away large portions of the coast at any point, and the inability to either prevent it or move residents before it happens due to a lack of financial capacity, feeds into the portrayal of coastal erosion as a threat to the community. The community has undertaken various approaches in the past meant to slow the coastal erosion, including sandbagging and the introduction of large boulders, but these have experienced varied success. As

one local participant in Tuktoyaktuk described, “we used sandbags. Big sandbags. That was good for one summer. A fall storm just took all the sandbags away.” None of the approaches so far, however, have been able to prevent the erosion altogether, and there is a general recognition that something more needs to be done.

Permafrost thaw is a serious concern for both communities due to the various impacts it is having on infrastructure, the concerns it raises for individuals out on the land, and the impact it could be having on the local ecosystem. Some participants considered the impacts of warming temperatures on permafrost to be a threat to infrastructure, due to the impacts of heaving and shifting on the buildings, structures, and roads. Participants also mentioned their recognition that building on permafrost has always been difficult and that a lot has been learned over the years about what can be done to overcome some of the associated challenges. The issue that climate change presents, however, is the increased unpredictability of seasonal changes, the acceleration of permafrost thaw, the high cost to repair or modify current structures, and the increased costs of building new structures due to the new expensive construction requirements in the Arctic. As another participant noted:

I think they used to put a pile down 20 feet, 6, 7 metres, and now they go down as far as 15 [metres]. So, it really adds a lot. I think that’s one of the big impacts: the cost. I mean, we can adapt and stuff, but it usually means higher cost[s], and it’s building anything in the North, Inuvik or wherever – Inuvik is probably better than most, but as you get into the more isolated communities, the construction costs skyrocket. It’s very expensive to build. That’s... the biggest thing, the cost involved.

While the two towns do experience certain facets of climate change differently, participants in both towns shared their concerns associated with permafrost thaw. In particular, interviewees from both Inuvik and Tuktoyaktuk recognized that the already high cost of building in the North is increasing due to climate change, citing this as a significant challenge and concern. Participants framed this challenge as a threat to community sustainability, while, at the same time, some described it as a practical issue they have always struggled with as the towns have developed over time.

Other concerns raised regarding permafrost thaw included slumping and the impacts it could be having on the local ecosystem. Slumping occurs when the permafrost weakens to the point where the land eventually collapses. Some participants noted observing this phenomenon recently in the Mackenzie Delta and along the Beaufort Sea coastline. Slumping raises several issues, including increased hazards for people who are travelling, hunting, or fishing on the Delta or along the coast. Damage to hunting camps and community outposts used for cultural activities has occurred as well. Participants also raised concerns for the local ecosystem, involving increased challenges for migrating animals and fish populations due to the impacts of slumping on rivers and lakes in the area.

Changes to the ecosystem pose various challenges for both communities. People from both communities rely heavily on harvesting various traditional country foods such as caribou, moose,

seal, fish, whale, and birds. These animals are sensitive to environmental changes, and many participants voiced significant concern about the increased difficulty in accessing some of these foods. Participants mentioned noticeable changes in migration patterns, the decreasing populations observed, and a changing terrain as being challenges for hunters and fishers. They attributed these changes to climate change and further noted unseasonable weather, ice becoming more unpredictable, and warming waters. These issues relate to many aspects of Inuvialuit life because they affect “the harvesting that people rely on for their culture and their nutrition and their daily diet” (interview participant). According to a hamlet council member in Tuktoyaktuk:

That’s the biggest thing, because I tell you, most of our community, I think 90 percent of our community, relies on traditional food... It’s our culture; it’s our practice. Just having the traditional foods, it helps a lot. Sure, if we lose all that, we can buy the meat and all that. But our food chains, our food life, is going to change. So, our diet is going to change; a lot of them are going to get diabetes, obesity, and everything.

Participants in this study described the reality of climate change in their communities as something they deal with on a daily basis. Leaders in these communities are constantly working to plan for the future and to acquire government funding to assist in their community’s adaptation to climate change. As some participants noted, the Inuvialuit have been very successful at adapting to changes in their region, but the ways in which they can adapt have transformed as the communities have become increasingly integrated into Canada over the last century. The Inuvialuit are no longer a semi-nomadic people who are directly tied to migration patterns and seasonal or landscape changes. Inuvik and Tuktoyaktuk are permanent communities, and the Inuvialuit have interest in growing their economies and developing their towns. The social, political, and economic changes they have experienced, therefore, frame the impacts of climate change as well as their responses to it.

Social, Political, and Economic Changes

While climate change is posing significant challenges for the communities, those climatic changes are not happening in a vacuum. The social, political, and economic challenges that the communities have been facing not only frame how climate change is being experienced but also the types of responses available to the communities for adaptation. Cultural traditions such as hunting and trapping are extremely important for the communities’ well-being, but they are not the only important parts of residents’ lives. The Inuvialuit have become increasingly integrated with Canada over the past century, both economically and socially, but this integration has not occurred without substantial challenges.

The Inuvialuit have historically been a mobile people. According to one participant, the fact that they have settled in established communities such as Tuktoyaktuk and Inuvik is new when compared to their longer-term history as a semi-nomadic people. As a former Tuktoyaktuk mayor mentioned, “we’re really an adaptive people. When our old communities [were] gone, we [would] just relocate and move here and move there. We haven’t moved for the last 100 years.” According

to various participants in this study, the Inuvialuit have taken advantage of emerging opportunities, which have allowed them to trade with the outside world, remain in the same areas, and establish permanent communities. Many of those interviewed noted that it is a part of their society to adapt to changes in their region by taking advantage of opportunities that arise around them. In economic terms, these opportunities have included the “first oil boom of the North” (the baleen whale oil industry) as well as the seal industry, the fur industry, and, most recently, the oil and gas industry. All of these industries, with the partial exception of the latter, have relied on the expertise and knowledge of the Inuvialuit as local peoples. They were primary players in the early economic activities that reached the Beaufort Sea in the early to mid-20th century.

These economic activities had social implications as well, however, due to the treatment of the region as “just something to exploit.” As another Tuktoyaktuk resident recalled, the “whaling companies came up in masses to Herschel Island. They almost decimated the bowhead whale and the living there was a really wild [and] crazy...” The oil and gas exploration ‘boom’ that began in the 1970s also raised serious issues with local Inuit peoples around environmental regulations, a lack of consultation, and little control of the Inuvialuit over their own territory. These issues required significant political adaptation, which resulted in the Inuvialuit successfully negotiating a comprehensive land claim agreement with Canada in 1984.

The story of the Inuvialuit Final Agreement (IFA) is one of the Inuvialuit’s most significant adaptations to the societal changes they were facing. According to one participant, the Inuvialuit adapted to the political situation they were facing in order to create a “solution-oriented vision” that reflected the needs of their people. The land claim process is indicative of how the Inuvialuit were forced to respond to the societal changes being thrust upon them:

We never had bands or chiefs or anything. You just had people who were knowledgeable, and people just naturally followed them because they knew more and they were learning all the time... The sad part of it, when the companies were getting more and more interested in the resources, it was a very difficult time not to get angry... And that’s why we went into land claims... You have to constitute yourself as a people... You have to be a legal entity. You know, all these things had no real meaning to us.

The need for a land claim and the following negotiations were representative of the societal and economic changes the Inuvialuit had been experiencing over the last century. The Inuvialuit Final Agreement set aside the Inuvialuit’s significant rights to and responsibilities over their territory. The final agreement lays out rules and procedures – or “the rules of the game,” as one leader put it – on how business is conducted in their territory. It has required companies in all industries, including the oil and gas industry, to work with the Inuvialuit to meet the Inuvialuit’s rules and procedures. While the IFA has established a comprehensive agreement between the Inuvialuit and the Government of Canada, there are provisions in the agreement that still need to be addressed. These include Inuvialuit rights to offshore territory in the Beaufort Sea (which was

supposed to be addressed within the two years following the 1984 final agreement) and an agreement regarding further self-government, which is in its advanced stages.

The IFA is indicative of the fact that, like in the rest of Canada, economic development has become a key aspect of community success. For example, as more than one participant described, snowmobiles, trucks, and boats are necessary for hunting, trapping, and fishing, and the high cost to buy, maintain, and run them puts a strain on individuals and families in the communities. Jobs are needed to pay for that equipment and manage the high cost of living that Northerners already experience. Very little opportunity for work exists in Tuktoyaktuk, and much of the community relies on transfer payments from the government: “the majority of our community lives on income support... If you look around, we have 900-and-something people here, and there’s only a handful of jobs available.” Inuvik, on the other hand, has a more stable economic base due to its role in the region as a government town with federal, territorial, Inuvialuit, and Gwich’in offices. Those without government work, however, experience more economic instability.

Thus, although climate change is causing urgent issues for Inuvik and Tuktoyaktuk, it is also putting other socioeconomic challenges under additional strain. Inuvik and Tuktoyaktuk are dealing with uncertainty in many interconnected areas, and as a regional leader noted, this underlines the need for a pragmatic and multi-faceted response. Participants from both towns showed fundamentally different perspectives on climate change when compared to federal or international perspectives on the phenomenon. This is demonstrated in the underlying perception among many of the interviewees that climate change is a natural phenomenon that the people of Inuvik and Tuktoyaktuk have historically experienced, the feeling that they personally have little to do with the direct causes of anthropogenic climate change (which stem from southern economies), and the sense that they have very little ability to mitigate its primary causes. The already high cost of living, as well as the lack of financial capacity to easily meet the adaptation needs of the communities, immediately puts the development of oil and gas resources on the table, regardless of the Arctic Paradox (see Palosaari 2019). This raises questions about sustainable development, how the concept is defined in Inuvik and Tuktoyaktuk, and the concept’s role in improving human security in the region.

3. What Does Sustainable Development Mean in the Canadian Arctic?

Despite the Canadian Arctic's similar environmental and spatial characteristics, including its cold climate, vulnerability to climate change, and remote Indigenous communities, Canada's North has distinct differences across the three territories. Indeed, there is a diverse population of Dene, Métis, Inuit, and First Nations citizens, as well as uneven social and economic development across the region (Abele 2016). This diverse group of actors is important and should play a key role in defining what sustainable development means in the Canadian Arctic, as well as how policy implementation takes place in the region.

In terms of the regional priorities set by the territorial governments, the *Pan-Territorial Vision for Sustainable Development* places the people of the NWT, Yukon, and Nunavut as the number one priority. The *Pan-Territorial Vision* document considers economic development and diversification to be foundational both to this people-centred goal and to the protection of the environment, which Northerners referred to in relation to the needs of economic development (Northwest Territories, Yukon, & Nunavut 2017).

Sustainable development has also been a key concept in the federal government's domestic and foreign Arctic policy agendas. In 2010, the Canadian government prioritized key approaches related to sustainable development in its *Statement on Canada's Arctic Foreign Policy* (Government of Canada 2010). In a comprehensive examination of the historical evolution of Canada's Arctic strategies prior to the release of the *Arctic and Northern Policy Framework* (ANPF) in 2019, Lackenbauer and Lalonde (2017) discussed the federal government's historical aspirations in the Arctic and outlined the four pillars of Canada's *Statement on Canada's Arctic Foreign Policy*: (1) Canada's commitment to uphold and exercise its rights as a sovereign coastal state in a cooperative environment with its circumpolar neighbours and Northerners; (2) "Promoting Economic and Social Development" by creating a sustainable northern economy in recognition of the Arctic's valuable resource sector; (3) "Protecting the Arctic Environment" through a comprehensive approach based on the concept of sustainability and science-based decision making to ensure an even pace between conservation and development; and (4) "Improving and Devolving Governance and Empowering the Peoples of the North" by continuing a high level of engagement with northern stakeholders through ongoing negotiations and the implementation of agreements with northern Indigenous peoples and territorial governments on the domestic level, by ensuring the active participation of northern governments and Indigenous organizations in Arctic policy issues, and by supporting Permanent Participant organizations of the Arctic Council (Lackenbauer & Lalonde 2017: 138-141). Additionally, Canada's emphasis on the sustainable development of natural resources and building sustainable circumpolar communities was evident during its chairmanship of the Arctic Council from 2013-2015 (see Lackenbauer & Lalonde 2017), in the federal government's approach to developing its new 'Arctic Policy Framework' (see Simon 2016; Everett 2018; Kikkert and Lackenbauer, 2019), and in the *Arctic and Northern Policy Framework* (ANPF) that was released in 2019. Together, these point to the importance of the sustainable development concept in Canada's approach to the Arctic.

Canada's Arctic and Northern Policy Framework (ANPF)

The Government of Canada released its ANPF in 2019 after an unprecedented “consultative and co-development” process undertaken in collaboration with Indigenous, territorial, and provincial partners (Canada 2019).¹ The ANPF has extensively engaged with issues across the North, and it provides valuable insight into how the federal government has framed climate change in the context of other social, economic, and security challenges. The policy framework acknowledges the fact that the Arctic is one of the regions most affected by climate change; that climate change is “redefining” the environmental, social, and economic landscapes; that Arctic ecosystems are at a higher risk of experiencing adverse effects of climate change; and that northern peoples who are closely connected to the land are experiencing these challenges the most (Canada 2019). The ANPF has taken a whole-of-society approach to climate change, connecting the broad spectrum of challenges facing the North and acknowledging the complexity of the issues facing Northerners and northern institutions. Thus, the ANPF has called for a whole-of-government approach to addressing the challenges facing the North, using climate change as a nexus:

If there is a single argument for a collaborative approach to a shared Arctic and northern future, it is the shared and complex challenges posed by climate change. The response of all partners to this challenge must be no less transformative in scale, scope or duration. (Canada 2019)

Within this context, the ANPF acknowledges non-traditional forms of security, noting the importance of the environment to human well-being and that:

For peoples closely connected to the land, ways of knowing are challenged to keep pace with the change around them. This is affecting cultural and social norms, such as engaging youth on the land, accessing country foods, gathering medicinal plants, and protecting water sources. (Canada 2019)

The ANPF repeatedly emphasizes the economic, social, and defence implications of a changing environment in the North. Participants raised economic development as a key theme during the roundtable sessions leading to the formation of the ANPF, stating that territorial and provincial governments have “emphasized that regional economies will need to be built upon both sustainable resource extraction and the development of other sectors” (Canada 2019). In the *Pan-Territorial* partner chapter of the ANPF, Canada's three territories outline their focus on responsible resource development, economic diversification, infrastructure, and innovation as ways to build healthy and strong communities (Yukon, Northwest Territories, & Nunavut 2019). Other partner chapters, including the Inuit Tapiriit Kanatami's (ITK) chapter, frame economic development as existentially important to improving life in the North:

Inuit experience extreme inequality compared to other Canadians, and to other Canadians in Inuit Nunangat. Addressing social and economic inequity, both between

¹ The ANPF is one continuous web-based document without any page numbers. The ANPF partner chapters, however, are documents with page numbers and will be cited as such.

Inuit Nunangat and within Inuit Nunangat itself, is a necessary pre-condition to the development of a *healthy, resilient and secure* Canadian Arctic. (ITK 2019: 2, emphasis added)

The ANPF consistently recognizes that northern communities need an increased financial capacity to adapt to environmental and societal changes in the region. The framework notes that to build resilience, investments are needed to improve infrastructure, education services, healthcare, and housing in order to increase the capacity of Northerners to engage with the wage economy, emphasizing economic development as the primary means for managing the social and environmental impacts of climate change (Canada 2019). The ANPF broadly acknowledges that location and environment partly determine the options available for addressing these issues, but that economic development and/or diversification is a key aspect of overcoming climate change and other societal challenges (Canada 2019). The federal government specifically ties resilience to a strong economy, stating: “A strong economy contributes to the resilience of Arctic and northern communities and sustainable growth that benefits all Canadians” (Canada 2019).

Although the ANPF goes into much greater detail on a variety of other related points including sovereignty, national security, and reconciliation, the key points outlined here indicate the federal government’s perspective on building community resilience and its view of economic development as a key component of resilience in the North.

Defining Sustainable Development in Inuvik and Tuktoyaktuk

What sustainable development means to the individual, researcher, region, or state depends partly on their own economic, political, and environmental contexts, their political opinions, and their philosophical/religious conceptions of the relationship between humans and the environment. Sustainable development has become an internationally recognized concept and approach in global environmental politics. It has become synonymous with the idea of responsible growth and the attempt to reach an equilibrium that meets the needs of both society and the natural environment.

In this study, most participants’ perceptions of sustainable development were related to their community’s history, their present situation, and what they hope for their community in the future. When asked to define ‘sustainable development,’ almost all of the participants defined it as development that allows them to sustain their families, their cultures, and their communities. At its core, sustainable development was about adapting to change and taking advantage of new opportunities, while maintaining their community members’ traditional and cultural ways of life.

The primary theme that emerged during the key informant interview process captures these priorities: *sustainable development is about community prosperity and having a place for future generations in the North*. This theme lies at the core of the participants’ views of ‘sustainability’ and ‘sustainable development.’ While there was some difference in perspective on how to achieve “having a place for future generations in the North,” there was a general acceptance that sustainable development requires a *balance* between environmental protection and economic growth.

This balance is of critical importance to the leaders interviewed, and considering their cultural ties to the environment, it is interesting to note their acceptance of economic growth as a key aspect of community prosperity and survival in the region. This acceptance demonstrates the extent to which the communities are integrated with Canada and the need for a multi-faceted approach to addressing the significant changes to the societal, economic, and climatic aspects of community life. An Inuvik town councillor described this perspective of sustainability as the “ability to basically grow and thrive with the environment rather than trying to fight the environment.” Understandably, the type of economic growth that most participants desire indicates an inclusion of neoliberal ideals into northern society, which pulls the community towards a definition of sustainable development that values the need for economic growth. As the same leader described, sustainable development has “got to be something that’s not going to harm the environment. It’s also got to be something that’s going to get the benefit of employment to people.”

Balancing Environmental Protection and Economic Development

First and foremost, all participants recognized that environmental protection has been, and will continue to be, critical for the Inuvialuit way of life. The region’s environment has been an invaluable and defining aspect of northern life throughout history, and the connection the communities have to their land and sea is part of everyday life for many Northerners. As a participant mentioned:

People here are very connected to the environment. It’s very much a part of the Indigenous culture that you’re connected to the environment. But you can’t live in this climate and not understand you’re connected to the environment. We’re not protected in this city. There’s no false sense that something else is going to look after you. You’re here. It’s real. If the power goes out here, we all know it’s a concern because we know after a couple hours we’re going to start getting really cold.

Many people in the communities rely significantly on the ecosystem for traditional foods. Protecting the environment is key to maintaining the region as a place for future generations. This is a critical defining aspect of sustainable development: any development cannot threaten the ability of Northerners to participate in cultural activities that rely on a healthy environment, including hunting, trapping, and fishing. The desire for economic growth, however, framed the discussions of environmental protection throughout all interviews, due to the recognition of the need for an economic base for future generations. It was the view of most participants that economic growth could help their community address the several changes they are experiencing and continue practicing cultural traditions. As a former mayor of Inuvik explained:

It’s great to protect everything, but if you don’t have anybody here, any industry, or don’t have an economy, I guess what is there going to be to protect? There would be the land and stuff, but if we don’t have the means to use it, because it’s not cheap to go [out]... even like I say for subsistence, if you want to go whaling or caribou hunting or moose hunting, you need the resources. Either you need to have an income so that you

can buy whatever you need, the equipment, the gas or whatever to do the hunting and stuff. So yeah, it all ties together there, but I think with education and employment, I think we can overcome a lot of the other social issues. They will always be there, but they are better managed if you have people employed, providing for themselves and being able to provide for their children. It has to work together; it can't just be all industry or all protecting the environment. If you're going to be sustainable for people, we need both.

People live in the North, and if they expect to live similar lifestyles to the rest of Canada, "the North can't just become a giant park. There's got to be economic development. Nobody wants to protect the environment more than the people who live here."

These quotes are important because they capture a fundamental and essential defining element of sustainable development: the concept is human-centric. It places the needs of human society as we know it today, which is dominated by a capitalist requirement for continual growth, as the primary point of departure when discussing issues such as environmental protection. The concept inherently values a need for *balance* "if you're going to be sustainable for people." Sustainable development cannot imagine a way forward without the forms of economic development that are understood today in Canada and in the broader global political economy. Therefore, it structures the types of responses available to address the multiple changes occurring in the communities, including how vulnerabilities are framed and policy solutions are formulated.

Making decisions about environmental protection and development, which are constantly being framed by the underlying requirement for an economic base that fits the neoliberal political economy of Canada, creates tension. This tension can be seen in the attempt to reconcile the environmental risks inherent in resource development, particularly with respect to oil and gas extraction, with the willingness to take those risks in order to adapt to the changing societal and economic atmosphere in the region. For example, some participants believe that the economic stimulus from oil and gas extraction could reduce social vulnerabilities in Tuktoyaktuk, such as the need to move the town inland (due to climate change and accelerated coastal erosion). Although the community has so far been limited in its ability to benefit economically from oil and gas development, the risk of environmental disaster from these activities will always be present. An environmental disaster of this kind could cause irreversible damage to the ecosystem that the community relies on for its traditional and cultural practices. A Tuktoyaktuk hamlet council member described this tension:

Sustainable development. I don't know. I don't know how we can do it. If we take a look at it, how do I keep my food? The traditions. Stop oil and gas? No, [not] when I need it in our community. I can't stop development from happening but try to do it in an environmentally safe way so it's not harming my traditional foods.

The desire for a *balance* between environmental protection and economic growth, therefore, is clear. It is ultimately found in the common recognition of the multi-faceted issues the communities are dealing with, the perception that economic stimulus would help residents to stay in their

communities, the desire to reduce the need for younger generations to leave their communities for work elsewhere, and the general longing to have access to lifestyles and opportunities in life similar to those that other Canadians enjoy. A former Inuvik mayor acknowledged the desire for balance and the importance of resource development in sustaining the community:

It seems, except for the people in the North, that we need to protect the Arctic. But there's people here in the Arctic that need an economy, right? They need the development to sustain the North, the territory. I've said this several times: there's nothing happening in the Canadian Arctic, but there sure is everywhere else in the Arctic globally. We need to recognize that potential, and we need to develop it. The environment is important to protect, but the resources would be a big part of our sustainable economy in this region, in the North, and in Canada.

For some participants, it was hard to see a future for the next generation in the communities without any sort of economic activity. Others also noted associated societal issues, including mental health concerns, for those unable to participate in cultural activities or work. As a former Tuktoyaktuk mayor mentioned, "idle hands are not good for our community," and many people in the community want to be productive, work, and contribute to Canada rather than live off "handouts." A Tuktoyaktuk hamlet council member described this sentiment as well:

There is no economy, so we see a lot...have psychological problems, mental health issues, because they're dealing with [the fact that] there's nothing for them. They're bored... I've seen so many issues and problems in the Arctic and in the eastern Arctic because they're so isolated. I don't want that to happen to my community... there's nothing for my community right now... I really don't want to lose anybody to drugs and alcohol or boredom or to peer pressure or to that sort of thing... I think [the] economy, finding jobs, doing it, it's going to help them. Sure, it may cause problems. In the long run... it's going to help them, and if they realize they can buy their own snowmobiles, they can buy their own clothes, they can do something, they're doing something...it's a self-worth. They work, and they work for their money.

Ultimately, the economy is a fundamental pillar in the definition of sustainable development in the region. As a regional leader described, sustainable development is:

trying to find things to do for a long period of time, over and over. You've got to think about what's the next thing. When one thing is done, like for instance the road, we have the road that was just completed. Okay, we've got to start thinking about what's the next thing that's going to sustain the economy to make us keep working as a society so we are not on the system... So, we have lots of natural resources around our region, and it's just doing strategically what will maximize and make it last as long as we can so we can still continue to work and survive in our region without living off the system. Being self-sufficient.

The perspectives of sustainable development that the participants in Inuvik and Tuktoyaktuk shared are ultimately consistent with the internationally accepted definition of the concept, as described in the World Commission on Environment and Development's Brundtland Report, *Our Common Future*, which defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations 1987: 43). Davidson's (2011) critique of the concept, that sustainable development requires "sustained economic growth" consistent with neoliberal ideals, can also be seen in the perspectives of those interviewed. Having economic growth as a key part of sustaining the region results in the acceptance of market incentives to care for the natural environment, a balance with environmental protection "that does not pose a threat to the current economic structures of modern industrial societies" (Davidson 2011: 352).

Communities in the Inuvialuit Settlement Region, however, are working from a very different starting point when compared to southern population centres. Government transfer payments and departmental offices support Tuktoyaktuk's and Inuvik's economies. Government activities generally maintain the flow of money into these towns, but these have been unable to employ the majority of the population or address the wide variety of societal challenges that exist.

The participants largely agreed that some form of economic development could help address at least some of the social issues present. On the other hand, though, any form of economic development would have the potential to put pressure on other aspects of community life. Some participants identified the need for improved infrastructure to protect the town and to access and benefit from new opportunities. While the recent completion of the Inuvik-Tuktoyaktuk Highway, some participants identified a desire for more infrastructure to make potential economic opportunities a reality. A primary point of interest, which will be explored further, is the fact that many of the leaders interviewed acknowledged oil and gas extraction to be a fundamental aspect of sustainable development in their region. This raises questions. What kinds of risk are communities willing to assume? Is the risk worth the benefits? While the participants also hoped for increased tourism, the oil and gas industry was a significant point of discussion due to its historical role in both communities, the role it could play in the future, and also the significant impacts (both positive and negative) that it could have on the community.

Oil and Gas Extraction as Part of a Sustainable Development Plan

The desire for economic growth as part of a sustainable development plan was reflected in the fact that most participants stated that they believe that some form of economic stimulus would be required to sustain themselves in "this place." Such stimulus, they indicated, could come from resource development, including oil and/or gas extraction, in their private Inuvialuit lands and potentially in the Beaufort Sea. Also, 11 of the 12 interview participants acknowledged the extraction of oil and gas resources as being part of an overall sustainable development plan for the region.

According to a regional leader:

In terms of sustainability, that's a question we have all the time. We have known oil fields, known gas fields for 50 years, that's been stranded. We've got to figure out a way to make it work for us. How we can extract it and ship it out. How we can create opportunities. I always say with our land claims [that] we have the tools in place to do it safe and to do it right. To find that balance between protecting the environment, which most of our people are concerned about, and finding the economic opportunities... [If] we were to be more self-sufficient, we know that when our people are working, they're happy. They're buying stuff for themselves; they can go out and do extra-curricular stuff after they work with their families. It costs a lot of money to go out on the land, even for just a family outing on the weekend. But if you work, those kinds of things can happen also... if you're working you can [get away] from the government. So, with the oil and gas, sustainability, we have it, we know there's reserves. Let's come up with a plan so that we can use it for heating our homes, green energy, but we also have the opportunity, the excess that we don't need we can ship out, and we can build on the royalties.

The confidence in oil and gas development seems to also arise from the past experiences that various participants have had with oil and gas companies. Some participants looked back fondly on the work experiences they had and the benefits that came from oil and gas development. These benefits included jobs, education, training, an income for the community, and infrastructure investments such as the construction of Tuktoyaktuk's water reservoir. A resident of Tuktoyaktuk, who worked for Esso Resources for 12 years in the 1970s and 1980s, described his experience working in the industry:

You know, I'll tell you something. When the oil company came in '71 up here, it was a big culture shock for the whole community. Even the leaders. It hit us so hard, and there was no land claim then. It took us five years to get used to it. Then when we got used to it, they started hiring us, which was good. There was a lot of our people in the area. A couple of them became drillers, some of them became bosses, but when Esso moved out, we got a pink slip. But it was a real good experience... I really enjoyed working for the oil company because I really got to know the rig. I was a service hand, a crane rigger. A lot of times I didn't work on the crane because there was nothing delivered to lift in, but I learned all the operations of the rig. They treated me good.

A former Inuvik mayor also described his experience with the oil industry in the Beaufort Sea as a "golden opportunity":

It's where we actually started our business in Tuk...which we still operate. But yeah, it was a good opportunity. There was a lot of activity back then in the Beaufort with the exploration, so there was a lot of opportunity, a lot of work there, and it was a lot of different, you know, companies in that region as well. The oil companies, the service companies, so there was lots happening back then.

Many of those interviewed revealed that they would like to see these benefits be available for future generations, and if the oil and gas companies were to return, they would expect to see their people being educated, trained, and employed in all aspects of the operation, particularly in environmental monitoring and remediation. “Let’s make sure,” one participant intoned, “that our people are trained to deal with issues so they can manage an oil spill instead of waiting for a team to come out from Edmonton, Hay River, Inuvik, wherever. Our guys, bang, jump, they are here. They’re the ones that will do this.”

While most people acknowledged that oil and gas development is a form of economic growth that could contribute to the communities, and that environmental concerns are of primary importance, it should also be noted that ‘oil and gas’ has been used in this study as a catch-all term. This is important because there are differences in resources and in the ways in which they are extracted. These include onshore and offshore natural gas deposits and onshore and offshore oil deposits, all of which require different extraction techniques with varying levels of risk associated with them. As Inuvialuit Regional Corporation chair Duane Smith mentioned in reference to oil and gas being considered part of a sustainable development plan for the region:

I can see it for on-the-land gas, for sure. Oil is a question mark. Offshore is an even bigger question mark because our culture and communities depend so much on the marine ecosystem being healthy for our diet... the people would have to choose if they wanted to see any offshore development or not.

The resources would also be used differently, with participants identifying natural gas as a resource that could be used for energy production in order to reduce the region’s reliance on trucked-in diesel. In general, however, during the interview process, participants made little differentiation between these resources when discussing them as being part of a sustainable development plan.

Because of the inherent risks, many participants pointed to the importance of oil and gas extraction being done in a way that meets their best practices as well as societal and environmental standards. Most participants noted that although there were potentially negative impacts of oil and gas exploration in the past, when community members raise concerns today, they are generally framed with regard to past experience, in a context which occurred before the Inuvialuit Final Agreement was negotiated. The Inuvialuit Final Agreement, signed in 1984 between the Inuvialuit peoples and the Government of Canada, transferred approximately 91,000 square kilometres of land to the Inuvialuit. In fact, certain participants suggested that this land claim has been laid out specifically to take advantage of oil and gas resources, the extraction of which was seen, at that time, as a high priority.

Today, the Inuvialuit hold subsurface rights to oil, gas, and minerals in 13,000 square kilometres of the land claim, as well as surface rights for hunting and harvesting in the remaining 78,000 square kilometres. In addition, the Inuvialuit Final Agreement established requirements for consultation and the creation of co-management bodies between the federal government and the Inuvialuit Settlement Region. Before the final agreement, there was no requirement for the Inuvialuit to be consulted. Their lifestyles were negatively impacted by pollution resulting from

poor environmental standards. This contributed to a substantial degree of powerlessness associated with not having legal ownership of their traditional lands. The need to consult directly with the Inuvialuit and the communities, along with the ability to financially benefit directly from the extraction of the resources, has changed local perspectives on the activity. This increased ability to partake in and benefit from oil and gas extraction activities changes the communities' perception of the risks of such development, because these activities would now directly benefit the communities. The ability to set "the rules of the game," or the rules and procedures of doing business on their lands, provides residents with the power to choose what happens on their lands for themselves. The ability to set the standards required for oil and gas companies also places the Inuvialuit Regional Corporation (IRC) in a position of responsibility. According to Inuvialuit Development Corporation chairman Patrick Gruben, it is increasingly important that decisions regarding oil and gas development are made within the region:

I always say that's why we have the land claim. We use that as a tool to make things work right. Myself and my colleague in the IRC chair, our job is to make sure that there's opportunities, business opportunities, for employment, development is there for our people to be sustainable... Don't let somebody in Ottawa or Yellowknife make a decision for us. Come to us, consult, and let us make the decision whether or not it's a go or not a go. We're the ones; it's in our backyard. That's what I think. You can consult with everybody, but we're the ones that are firsthand. We've lived it, we know what's going to work, and if something fails, it's our fault. We can live with that. But we can't live with somebody else making that decision for us in Ottawa or Yellowknife.

Many participants discussed how competing perceptions of the Arctic and notions of sustainable development from outside the region have had an influence on local opportunities. This is an important concern because competing perceptions of what Northerners need and/or desire in the region could have an influence on the ability of these communities to sustainably adapt as they see fit. Therefore, these concerns need to be acknowledged. As such, this theme of community development and prosperity in relation to sustainable development was an important one, but it was not the only theme that informants identified as being significant to a discussion of sustainable development.

The Impacts of Competing Perceptions of the Arctic and Sustainable Development

Another primary theme identified in the key informant interview process was that *competing perceptions of the Arctic influence regional definitions of sustainable development and adaptive capacity*. Most participants identified that the way Southerners perceive and understand the North has had an influence on their ability to develop their local economies and grow their communities in their own way. Interviewees believe that national and global perspectives of the Arctic impact the local capacity of northern communities to develop in ways that they believe are sustainable, and that southern perspectives of the region have shaped policies that affect Northerners. There was a general feeling among interviewees that southern perspectives of the Arctic are not realistic and do not reflect everyday life in the North. Multiple participants stated that environmental

regulations can be overly burdensome, that in some cases such regulations have prevented sought-after projects from getting off the ground, and that limitations to economic development due to southern perceptions only serve to continue community reliance on government funds.

USA-Canada Beaufort Sea Oil and Gas Moratorium (2016)

While participants mentioned some notable delayed or failed projects, such as the Mackenzie Delta Pipeline project, they specifically discussed the federal government's more recent moratorium on oil and gas development in the Beaufort Sea, because the interview process specifically included questions about it. The federal government imposed the moratorium – which halted and banned offshore oil and gas development off the coast of the Inuvialuit Settlement Region – on the Beaufort Sea in December 2016 as a joint action between the Obama administration in the United States and the Trudeau government in Canada. While some participants saw the merit of the moratorium in terms of environmental protection, most respondents viewed the moratorium as another example of southern misunderstanding and indifference towards the North. According to all participants, there was absolutely no consultation with the territorial, regional, or local governments before the moratorium was put in place, which some stated goes against the spirit of both the Inuvialuit Final Agreement and the recently declared Inuit-to-Crown relationship. Some also noted that the ban was unnecessary due to the limited activity currently taking place in the Beaufort Sea and the environmental and safety measures already in force. Other interviewees saw it as a political move by the Trudeau government. According to a former regional leader, “it was just a political move. We were working with companies, and as long as the companies were up here, we had the strength and their respect from them. They didn't do anything that we didn't want them to do.”

This political move is somewhat reflective of the added challenge of being a coastal region in the Arctic: the economic desires of the community involving oil and gas do not necessarily align with a geopolitical narrative that often presents the region as a pristine environment in need of heightened environmental protection.

Ultimately, these types of actions on the state level contribute to what some participants feel is an unfair representation of their home:

[P]eople's perception of the Arctic is so different. Remember when *National Geographic* put out those pictures of the starving polar bears, but no context to that? That's what it feels like a lot. Like you[ve] got to understand what's here and you've got to understand there's nobody more concerned about the Arctic than the people living in it. The last thing we want [to] do is destroy our own home... you can't just say to a third of the country: you can't develop.

Many participants shared this sentiment in various ways, and these perspectives contribute to their belief that while the Inuvialuit Settlement Agreement has provided the ISR with the rights to control many of its own affairs, it is still burdened by southern perspectives. In this respect, Inuvialuit Regional Corporation chair Duane Smith said:

I wouldn't say there's any perception. I go to Ottawa a fair bit and I remind them that this is the forgotten part of Canada, it seems. Well, look at it. You walk down the main street and half the businesses are shut down. So, I don't know if they have a perception one way or another, and it would be good to work with us on developing that.

Participants emphasized that the Inuvialuit Final Agreement is an agreement between Canada and the Inuvialuit, and they believed that Canada has had difficulty fulfilling its end of the deal. In reference to whether the community has been limited in reaching certain goals because of this, Duane Smith responded:

Yes, to some degree, but again under our final agreement, it isn't just the Inuvialuit's final agreement. It's all of Canada's. Canada signed on to it to be a partner with us. So the federal government also has obligations and responsibilities to work proactively with us to implement it, and that includes economic measures.

This is important because inconsistent perceptions of the Arctic have an influence on policymaking related to the region. There is a feeling among some participants that southern perceptions of the region are idealistic, unfair, disingenuous, and ultimately misrepresentative of some of the realities that Northerners are facing. From the perspective of Inuvialuit Development Corporation chair Patrick Gruben:

We seem like we have to teach everybody over and over again about our land claim. I think it was just in the news the other day that they have too many people making decisions on the North that really don't understand the North. I believe that's so true. If they come up here and understand what we're talking about, they'll understand where we are and where we're trying to go. We know where we want to go. I think that's the difficult part. But I mean for us the limitations, a lot of them we see it, we're kind of a group that's pro-development because we're one of the first groups in Canada to settle our land claim... We're a growing territory, we're a growing country, so we need to find these economic opportunities to move forward.

Such thinking resonates with academic scholarship on political imbalances between regions in Canada, particularly between the Arctic and Ottawa, in terms of the serious social implications for northern populations (Abele 2016). This has partly defined how the rest of Canada views the North. How the South has perceived the North is evident in prior umbrella policies – including Canada's previous northern strategies– that were created to manage the entire North and thus have not accounted for the diversity that exists there (Abele 2016). For those who live in Tuktoyaktuk and Inuvik, the Arctic is home. It is where many were born and raised, where many of their ancestors are from, and where they have chosen to live their lives. It is a part of their identity. It is a place where they want to be able to sustain themselves and future generations. These historical and social factors play into their own perceptions of their region as well as how they define what sustainable development could possibly mean to them. These two towns, however, do not exist in a vacuum, and they must unfortunately compete against outside perceptions of the Arctic region on both the national and circumpolar levels. A Tuktoyaktuk hamlet councillor succinctly captured

the disconnect that can arise from this dynamic, in reference to the oil and gas moratorium: “I don’t see their big picture. I see my big picture. My big picture is my community. Then they see their big picture as the whole world.”

These ideas about how the Arctic is perceived are important because they help to contribute to an understanding of how northern communities imagine sustainable development. As Duane Smith noted regarding varying definitions of sustainable development, “you’re going to have differing interpretations wherever you go or see because the activities in different regions are different again, and I guess I would have an Arctic rural view on what that interpretation was versus somebody sitting in Toronto.”

While many participants shared their perspective that outside/southern perspectives of the Arctic have influenced the ability of northern communities to “sustainably develop,” northern perspectives of the South have an influence on northern definitions of sustainable development as well. There is a general paradox in terms of oil and gas development extraction in the Arctic as an economic opportunity that could help fund adaptation needs in the region, which is revealing of the human-centric nature of the sustainable development concept. The idea that climate change is a ‘southern problem’ to which Northerners have not contributed, as well as the continued need for oil in the global economy, compels leaders such as a former Tuktoyaktuk mayor to ask the question, “why shouldn’t we benefit from that need?”

Sustainable Development, Community Survival, and Adaptive Capacity

The idea that economic growth has become a key aspect of community survival, enshrined as part of a pragmatic, multi-faceted response to climate change and other issues in the communities, is an important defining characteristic of their approach to sustainable development. There is need for an economic base to produce money that would assist with adapting to changes in the region, allow the continuation of various traditional and cultural activities, and provide employment that offers people a feeling of purpose and self-worth (and that keeps people from moving out of the community to look for work elsewhere). These needs effectively reinforce economic growth as a primary pillar of sustainable development. A Tuktoyaktuk hamlet councillor expressed this sentiment: “we need industry to keep our culture; our culture is about adapting to new opportunities.” Another participant went further and noted that “you can have the best government structure, the most highly respected constitution, but if you don’t have any money to look after it, you’ve got nothing. Things are changing, and people need money. People need jobs. People need it because things are changing.”

According to a former Inuvik mayor, these economic activities are a critical aspect of sustainable development:

I think that’s the future for the next generation. I mean, they need something to look forward to or keep the generation in the North... in recent years it’s been fairly depressed, and that’s certainly a challenge living in the North. So we need some sustainable development to survive. Whether that be resource development, tourism,

or it's going to have to be a combination. We certainly can't put all our eggs in one basket, but I think resources, tourism, and, I guess, technology, and research is another good opportunity.

As a Tuktoyaktuk hamlet councillor noted regarding the oil and gas companies, "my thing as a council member is to try and get them to help us keep our community going. If not, donating a large amount of money can go towards moving something. Anything to help. But it's going to help us adapt. It will help us."

Some interviewees considered oil and gas development to be part of a sustainable development plan because the economic stimulus would help to sustain the communities in their current locations, without requiring that they be relocated. Such ideas about sustainable development include oil and gas development not because it is 'green' or because it is good for the environment, but, as many of the leaders interviewed suggested, because this type of development could grow the regional economy and could provide an economic base for future generations of Northerners – a necessity in an increasingly globalized and neoliberal political economy.

In conclusion, many participants suggested that a practical 'northern' approach is needed for the communities to successfully exist in the region. The North has changed, and will continue to change, but according to the participants interviewed in this study, Northerners cannot separate their environmental, social, and economic priorities. This understanding also contributes to the idea that sustainable development, and the implementation of this concept through formal federal policies without local context, has an influence on the adaptive capacity of local communities. Economic growth is a significant aspect of adaptation to environmental and societal challenges, and limited economic opportunities exist. While some participants shared the perspective that "it is possible to have an oil industry that is clean enough to not threaten other natural resources, as long as it meets our standards," others rhetorically asked the question: "what other choice do we have?" The majority of the participants in this study asserted that economic development has become a primary pillar in sustaining communities and helping them meet the societal needs of their people.

4. Conclusions

Climate change is having significant and urgent impacts on both the natural environment of the Inuvialuit Settlement Region and its communities. The primary concerns that the participants of this research project described included increased coastal erosion, permafrost thaw, slumping, and various ecosystem changes. This study found that the ways in which the participants described climate change were related to the types of changes they have experienced, which included both changes to their natural environment and the various changes in their communities. Participants also described climate change in relation to the perceived urgency of that change, for instance expressing anxiety over the increased difficulty of travelling on the land and/or potentially losing a home into the sea, and the vulnerability they may or may not feel due to the changes they have personally experienced. Climate change is something that people in Inuvik and Tuktoyaktuk deal with on a daily basis, and leaders in these communities are working to plan for the future. While the Inuvialuit have been a tremendously adaptive people throughout history, the avenues for adaptation have transformed significantly over the last century. As participants mentioned, the Inuvialuit, who were formerly a semi-nomadic people, live in permanent communities, and the communities of Inuvik and Tuktoyaktuk have an interest in growing their economies and developing their towns. These interests, along with the societal, economic, and political changes they have experienced, frame participants' views of the impacts of climate change as well as their responses to it. Thus, the context in which climate change is discussed must be made explicit: that the environmental, economic, and societal changes and challenges the communities are facing are interwoven into a complex set of issues for both communities that cannot be addressed separately.

The key informant interview process revealed how important perspective is when approaching an issue such as climate change. Considering climate change as a threat or a practical issue is important because these perspectives are inherently political and shape how people approach climate change concerns, particularly in terms of environmental or human security. Some described climate change as a threat due to the imminent problems it poses for the communities, including the increased coastal erosion that is forcing Tuktoyaktuk to consider plans to move further inland. Others, however, described climate change as a practical issue that is something they have always dealt with throughout their history. Ultimately, these perceptions are important because they expose the interrelationship between climate change challenges and the societal and economic challenges that the communities are facing. Those who described climate change as a threat also described the challenges that exist for them to adapt to it, which included difficulty accessing funding, the worsening of issues including food insecurity, and the lack of an economy able to help pay for the high costs of living and adaptation in the Arctic. These types of explanations shift the focus onto other societal and economic challenges that the communities are facing. This raises the question: Is climate change itself a threat, or is the inhibited ability to adapt to the issues presented by climate change the threat?

The participants who characterized climate change as a practical issue also described it as a natural phenomenon that their people have always dealt with to some degree and that, therefore,

requires a practical recognition of the challenges and responses available to the communities. Some participants asserted that policymakers can and should be more pragmatic and realistic about the issues that Arctic communities are facing. While climate change may be something that Northerners have always been dealing with in the Arctic, the ways in which the communities are *experiencing* climate change have changed significantly in the last century. While human activity is accelerating climate change, changing connections to the land are also shifting people's perspectives of that land. Climate change, therefore, is not the only issue these communities are facing, reiterating the idea that climate change requires a holistic and pragmatic response.

Climate change may 'threaten' certain aspects of life in the North, but it is possible that a changing relationship with the land is prompting a different perception of what constitutes a threat to the communities. As some participants noted, people are spending less and less time on the land due to a variety of reasons, they live in permanent communities that must be protected, and they have important social and economic ties to the rest of Canada. Climate change is a complex problem in the Arctic because human activity is not only accelerating that natural phenomenon, but it is also exacerbating the challenges these communities are experiencing in other areas. Thus, there is a need for a dynamic and multi-faceted approach to the complex and interconnected issues these Arctic communities are facing that considers both local contexts and the environmental, societal, and economic aspects of life in the North.

Sustainable Development

'Sustainable development' has become the globally and nationally recognized multi-faceted approach to address the interconnected environmental, societal, and economic issues that society faces. This study has presented perspectives that contribute to an understanding of sustainable development in the context of two communities in the Inuvialuit Settlement Region, particularly in terms of the many changes these Arctic communities have been experiencing, including climate change. These perspectives contribute to an understanding of how northern communities imagine sustainable development and ultimately how differences in perspective can have an impact on the adaptive capacity of northern communities.

According to the emergent themes from the key informant interviews, sustainable development is about community prosperity and having a place for future generations in the North. Interviewees considered sustainable development to be a *balance* between environmental protection and economic growth, and they perceived economic growth to be a key aspect of community survival and prosperity owing to the significant political and societal changes that have occurred in the last century. The vast majority of the leaders interviewed illustrated that an increased financial capacity is needed to adapt to environmental and societal changes in the region. Families also need money to continue various traditional and cultural activities that require the ability to purchase snowmobiles, vehicles, boats, fuel, rifles, and other common items needed for everyday life in the North. Some also considered employment as contributing to a feeling of purpose and self-worth for some community members, as well as being a reason to discourage people from moving out of the community for work elsewhere.

While sustainable development is a convenient term for describing the balance desired by many of the leaders interviewed, the findings of this study suggest that the concept is highly context dependent. The issues that northern communities face may be similar to those in other parts of Canada in a general sense, but their location and environment constrains and shapes the options available to address these challenges. In Inuvik and Tuktoyaktuk, participants emphasized that the environment needs to be protected to maintain the important cultural practices and subsistence lifestyles in which many community members engage. While many participants classified oil and gas extraction in the region as part of a sustainable development plan that could help address various societal challenges, environmental protection remains critical for the Inuvialuit way of life and therefore would demand a delicate balance. Many community members still rely on harvesting for food and cultural practices. While oil and gas extraction could pose a potentially existential threat to these activities, it is also true that a multi-faceted approach based on notions of ‘sustainable development’ requires a focus on economic growth.

The desire for a *balance* between environmental protection and economic growth is ultimately found in the common recognition of the multi-faceted issues the communities are dealing with, the perception that economic stimulus would help residents to stay in their communities, the desire to reduce the need for younger generations to leave their communities to work elsewhere, and the general longing to have the option to enjoy similar lifestyles and opportunities in life as those available to other Canadians. The majority of leaders interviewed illustrated that an increased financial capacity is needed to adapt to environmental and societal changes in the region. By virtue of the limited economic opportunities available to the communities, the pursuit of sustainable development places oil and gas extraction as part of a potential sustainable development plan for the region. While the leaders interviewed acknowledged the environmental risks of and concerns regarding the traditional practices that are involved in such an activity, the perspective that economic growth is a key aspect of community survival keeps oil and gas activity on the table.

Should oil and gas extraction activities resume in the future, many of the participants stated that they should be conducted in a way that fulfills the rules and procedures they have set to minimize societal and environmental risks. Ultimately, however, the idea that economic growth has become part of a pragmatic, multi-faceted response to climate change and other important issues is a significant defining characteristic of how sustainable development was viewed.

Unlike the position adopted by the Canadian federal government in their 2016 Beaufort Sea moratorium, most interviewees from the ISR considered oil and gas extraction to be part of a sustainable development plan because, if done responsibly, it would help to sustain their communities within the context of the political economy in which they exist. Thus, sustainable development, and its implementation through formal policies at higher levels of governance, has the potential to influence the resilience and adaptive capacity of local communities by placing various limitations and boundaries on what forms of adaptation are available to them. Experiences of change and the more recent demands of a neoliberal capitalist society are important contexts shaping the options available to Inuvik and Tuktoyaktuk to adapt to climate change. From a

neoliberal political economy perspective, the avenues for adaptation are thus limited, and this creates a tension between different levels of northern society, particularly when outside perspectives and higher levels of governance inform and implement policies that are not reflective of the realities the communities are facing. In recognition of the different attitudes in the South and around the world about oil and gas extraction, as well as the long-standing frustration over outside southern influence over decision making in the North, many leaders described the need for a practical ‘northern’ approach to sustainable development.

Critiquing Sustainable Development Through an Environmental Security Lens

By approaching sustainable development through a human or environmental security lens, it can be seen how and why some scholars and commentators have argued that if something is not sustainable, then it is not secure. From a broad theoretical or conceptual perspective, this may seem to be true. But in reality, as this study argues, this belief is desecuritizing environmental issues because it effectively distracts from sustainable development’s inherent flaw: that a neoliberal political economy, based on continual economic growth, cannot be sustainable without economic growth as a core pillar of the concept. This contradiction promotes activity that contributes to an economic paradigm that has the potential to place the protection of the environment as an underlying factor in economic and human success. It does not change the fundamental aspects of society that are unsustainable, but it instead changes the way in which they are viewed and, by doing so, protects them.

These findings also raise questions about how existing frameworks of sustainable development contribute to meeting the needs of northern society and human security. Can these limited findings be reflective of more general conditions? Are northern societies adopting a more capitalist understanding of the concept, and do they agree that there is a need for continual growth? Could it be said that these perceptions are developing through a capitalist and colonial lens, meaning that the pursuit of sustainable development and the requirement for economic growth perpetuate colonialism and colonial structures in Canada’s North by limiting the perceived options available to communities to be sustainable and successful? Informants in this research project certainly suggested this when, while considering economic development and oil and gas extraction, they rhetorically asked: “what else do we have?”

Various scholars have declared that a new approach is needed to handle the challenges that climate change poses, as well as the evident changes in the global organization of production (Abele 2016; Trainor et al. 2007). Paterson notes that an increasing number of scholars are calling for an end to development. These authors are “not interested in development alternatives but in alternatives to development, that is, the rejection of the paradigm altogether” (Paterson 2001: 151). Yet, the rejection of the current paradigm would require the removal of the market as the dominant structure within global society. Such a shift in the Canadian and global political economy is extremely unlikely to occur. Therefore, strategies that better represent the explicit views of reality held by stakeholders being affected on the local and regional levels need to be employed. An

Inuvik town councillor reflected upon one of the many reasons for northern involvement in decision making about the Arctic:

Is something going to work or not? What is the risk? Can we mitigate it, or do we say that that's just too risky? I think we need northern people involved in those decisions. I think we need Indigenous groups involved in those decisions. We tend to have levels of government working well here together, so you'll have your territorial government and then your Indigenous governments; however, many are in that area, looking at an issue. We[']ve got to keep doing that. We absolutely have to. We have to involve people from the communities and ask them. What do you know? What do you think? Will it work? Will it not? Because people here tend to be very thoughtful about development. It's not just a "let's rush away and go and do it." Everything here takes so much money and so much time. You've got to plan it out.

Environmental and Human Security

Sustainable development and environmental security intersect in ways that are human-centric, particularly on the community level. This study has highlighted the challenges that Inuvik and Tuktoyaktuk face in adapting and responding to the numerable changes they are experiencing within the boundaries presented by different evaluations of environmental security at higher levels of governance, such as those related to the Beaufort Sea oil and gas moratorium imposed by the federal government that have been discussed here. From the perspective of the leaders interviewed in Inuvik and Tuktoyaktuk, this action was unnecessary and violated the normal appropriate spectrum of response.

It is difficult, given the scope of this study, to claim that the federal government's actions reflect environmental securitization on the national or international scale. However, environmental securitization can be seen in federal policy documents, in which the government has frequently been explicit in its framing of environmental degradation as being an existential threat to Arctic communities and their environment. By placing potential environmental degradation as an issue above normal domestic and regional politics, the federal government's actions may be impacting the communities' adaptive capacity by preventing them from pursuing their own understandings of sustainable development and undertaking activities relevant within their own social, environmental, and economic contexts. Clearly, policies like the oil and gas moratorium – although it placed a limitation on what was an already unlikely activity at the time – are symbolic of how federal policies impose limitations on local communities' ability to respond to the societal challenges they face through economic development.

Overall, this study suggests that sustainable development in the Arctic must be understood in a local as well as global context, and with reference to the unique conditions of the North. There are so many challenges and so few options for Arctic communities as they work to maintain themselves within a colonial and neoliberal framework. There are many external pressures on communities, and real power differences exist between the local, territorial, and federal

governments. While northern communities have their own perspectives, this study has shown that the way in which the Arctic environment is securitized has a lot to do with how southern policymakers imagine the Arctic. The imagery of the Arctic that is promoted in the South, that of a pristine natural environment, drives the feeling noted by many participants that the Arctic is a “forgotten part of Canada,” or, at least, that the values, priorities, and worldviews of local people in the Arctic are overlooked.

Policy Implications

In recognition of the influence that outside and southern perspectives have on the communities, many of the participants discussed their desire for an increase in northern involvement in policymaking and increased education in the South regarding the issues Northerners face on a daily basis. As all participants noted, greater consultation regarding policies that affect Arctic communities is needed. Due to the fact that domestic and international policies are so closely tied in the Canadian Arctic, new or enhanced multi-stakeholder partnerships are needed to provide better context when developing policies, to discuss the values and priorities that exist at different levels of governance, and to help determine better compromises or alternative options for communities when working to sustain themselves and the environment on which they depend so greatly. It also needs to be considered at the state level how nation-wide approaches may be impacting local Indigenous communities, particularly in the North. Multi-stakeholder partnerships and greater consultation can help account for context and the issues faced on the local level, as well as determine if national policies are having the intended positive impacts.

Conclusion

The general findings of this study suggest that policymakers must acknowledge regionally specific understandings of sustainable development, sustainability, and environmental security in order to develop successful coordination and cooperation strategies in the NWT and the Canadian Arctic. Local perspectives of the issues communities face need to be included, and the findings of the key informant interview process could be of help in this regard. Additionally, the geopolitical environment in the Arctic is unique, which may require local perspectives to be more deeply understood at the state level. For example, this has consequences for the application of the conservation economy principles being discussed for the region, and as this study has found, competing notions of sustainable development and environmental security may be impacting local communities. The ways in which leaders in Inuvik and Tuktoyaktuk frame the environment, climate change, and economic development need to be understood in order to ensure that “economic opportunities are in line with the conservation objectives for a particular area” (Government of Northwest Territories 2017: 37). This study has provided insights into how leaders in the two communities frame sustainable development, the types of economic development many of them see as important, and ultimately how economic development and environmental protection are to be balanced.

The concept of securitization proved to be a useful framework to view how issues such as climate change, societal change, and competing notions of sustainable development could be threatening or negatively affecting the well-being of communities in the Canadian Arctic. While the securitization approach has various limitations and challenges, including the difficulty of separating and defining different forms of ‘security,’ it provided an opportunity to discuss the challenges that northern communities are experiencing from their unique perspectives. It allowed me to identify different perceptions of what constitutes a threat at the local and state levels, and it revealed how these community leaders in the western Canadian Arctic perceive different threats in comparison to the federal government. In so doing, it challenged responses to climate change and environmental degradation, placed greater importance on local definitions of sustainable development, and exposed the important position that local Arctic communities hold in a unique geopolitical region. It also allowed for a deeper understanding of how notions of environmental security and sustainable development impact adaptive capacity: that different understandings of what is existentially threatened (and why) at the state level influence policy responses that may or may not be effective on the local level, thus potentially limiting the adaptive capacity of local communities.

This study suggests that environmental security and sustainable development are human-centric concepts that focus on human experiences and perspectives of the environment and their societal needs. Competing notions of sustainable development and environmental security between the local and state levels of governance have the potential to place constraints on local communities seeking to benefit from emerging opportunities. More attention needs to be paid to the complex changes that northern communities are (and have been) experiencing, northern understandings of sustainable development in relation to community resilience, the broader but related concerns and priorities of local communities, and the intended and unintended impacts that securitizing the environment at the state level can have on local communities.

The findings suggest that the federal government should engage in deeper consultation with Arctic communities, establish and enhance multi-stakeholder partnerships with northern communities and groups, increase and improve education in the South regarding the issues Northerners are facing (and the role northern communities play in Canada), and continue to devolve governance so that policy development better reflects the needs of northern communities rather than the perspectives of southern policymakers. In regards to the political and economic paradigm in Canada, this study offers a reminder that while the Arctic has a fragile and relatively ‘unspoiled’ environment, there are people who live there and who, like the rest of Canadians, want to have healthy and happy lives. When discussing environmental protection, conservation, and economic development in the Arctic at the national and global levels, the perspectives of those living in the Arctic, who have called the region home for time immemorial, need to be understood and applied.

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