Arctic meltdown: A problematic property rights structure translates into poor resource management

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Abstract

As access to the Arctic region continues to grow, many land-use issues have become increasingly prominent. The exposure of shorter shipping routes, unresolved maritime boundaries between the bordering states, and most importantly, the plethora of renewable and non-renewable resources in the region have created a strain on international relations between the states bordering the Arctic. Rising global temperatures have created the promise and opportunity of better access to natural resources in the coming years, raising the likelihood of potentially substantial economic gains to the bordering states. However, the current property rights structure in the Arctic, as governed by the United Nations Convention on the Law of the Sea (UNCLOS), dictates that the jurisdiction of each coastal nation state shall not exceed past 200 nautical miles beyond the coastline of each respective state. The goal of this report is to provide an assessment of the basic property rights that govern the Arctic territory in an attempt to illuminate how current and future inefficiencies in natural resource extraction and management can result from a poor property rights structure. The current property rights structure has led to a departure from an efficient allocation of rights and as a result currently operates under an anticommons scenario, while also setting the stage for a tragedy of the commons in the not so distant future. To move away from these sub-optimal outcomes and toward more efficient resource management, open communication, cooperation, and better defined property rights are important components needed to strengthen resource management among Arctic states.

Keywords: Arctic land-use and property rights (assessment of); natural resource extraction and management (inefficiencies in); anticommons scenario; tragedy of the commons; Arctic Council; UNCLOS

Introduction

International tension over Arctic resources and the division of property rights between bordering countries has become an increasingly prominent issue. The purpose of this paper is to assess the current structure of property rights in the Arctic in order to map out present and future inefficiencies in natural resource extraction and management. Using Alchian and Demsetz's (1973) property rights paradigm as an analytical framework, this report aims to assess how the current structure governing property rights in the Arctic has driven the current and future state of natural resources in the region to sub-optimal outcomes. First, it is necessary to construct a theoretical optimal outcome; second, to identify where divergences can occur between the optimal outcome and the actual outcome; and third, to apply this knowledge to critically assess the current solutions available

to solve territorial disputes among nations and to address and manage the challenges that result from the allocation and management of scarce resources in the Arctic.

Alchian and Demsetz: Property Rights Paradigm

Alchian and Demsetz (1973) provide an effective analytical model that can be used to assess land-use problems. In terms of this paradigm, property rights are discussed in an economic sense, referring directly to the "ability of individuals to exercise their rights over an asset" (Musole, 2009). The paradigm itself requires the consideration and evaluation of three qualities concerning property rights. First, one must consider the current structure of rights for a particular piece of property. In terms of property, the notion of ownership implies that an entity owns

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particular rights which, in turn, allows the use of a resource. However, these rights are limited in the sense that owned rights are “socially recognized rights of action which prohibit actions of the owner deemed unacceptable by society” (Alchian & Demsetz, 1973). Furthermore, a detailed description of the structure of rights can include the “right to use an asset, the right to capture benefits from an asset, the right to change its form and substance, and/or the right to transfer all or some of the rights” to other parties (Pejovich, 1990). The structure of a property rights regime can also be defined as the “divisibility, exclusivity, transferability, duration, quality of title, and flexibility” that make up a bundle of rights (Grafton, Squires & Fox, 2000). The assessment of the structure of property rights also extends to the strength and domain of the owned property rights. The strength of property rights, for example, can include the ability of an entity to make decisions that govern the use of the resource and to enforce ownership. The domain of property rights structure defines the entity or entities that own particular rights and also outlines the distinctions between the allowable actions and limitations of particular right-holders.

Second, the paradigm requires the study of how the current structure of property rights came into being. Musole (2009) highlights the notion that property rights are formed based on existing institutions and social norms of a particular society. Moreover, as these institutions and norms change over time, so do the property rights. Therefore, it is essential to understand the origin of property rights structure, along with the factors that have facilitated their evolution over time. With this understanding, the third component of the property rights paradigm involves the evaluation of the various consequences that result from the property rights structure.

Determining the Optimal Allocation of a Scarce Resource

An important relationship exists between successful resource management and well-defined property rights. Ultimately it is the structure of property rights that determines the consequences that “individuals face, the types of actions they take, and the outcomes they achieve” (Schlager & Ostrom, 1992). Libecap (1986) argues that property rights influence economic behaviour by governing incentives. Specifically, property rights “delineate decision-making authority over economic resources, determine time horizons, specify permitted asset uses, define transferability, and direct the assignment of net benefits; [moreover], because they define the costs and rewards of decision making, property rights establish the parameters under which decisions are made regarding resource use” (Libecap, 1986). Therefore, a resource user should hypothetically be incentivized to manage a resource optimally so that the present value of net benefits of the owner can be maximized.

Theoretically, as illustrated in **Figure 1**, this optimal outcome is achieved when both the marginal benefit curve and the marginal cost curve intersect, meaning that the resource will be managed sustainably and the user who owns the rights to the resource will also receive positive rent return. In this case, when time is static, the shaded green area represents a maximization of the present value of net benefits available to the user given this optimal allocation. If the user were to begin extracting units beyond the optimal quantity (Q^*), the present value of net benefits of the owner would begin to decrease.

Figure 1. The optimal allocation of a scarce resource resulting in an efficient outcome.

However, this model is rather simplistic. In the real world, natural resource management is dynamic because it aims to balance resource extraction between multiple users and across varying time periods along with sustainability measures. It is important to note that in many cases, resource users are attempting to access resources characterized as common property. In its simplest form, common property refers to a property regime where “there is no hierarchical relationship among owners such that society recognizes as final the decision of any single owner”; and furthermore, common property can be characterized by the fact that resource users hold the “right not to be excluded” from the resource (Heller, 1998; Macpherson, 1978). According to Schlager and Ostrom (1992), one of the most important rights to own in order to effectively manage a resource is the right to exclude others from accessing that resource. The assignment of this exclusion right is significant given that it can determine whether or not a resource is managed efficiently and sustainably. One of the main consequences resulting from the misuse or absence of this exclusion right is the ability to drive resource allocation and management to sub-optimal outcomes that may result in lower rent return to resource owners and can inherently threaten the future stability and vitality of the resource itself. Therefore, given the assumptions made above concerning the qualities of common property, resource management over time can become increasingly difficult and/or destructive when the strong institutions that are needed to govern and limit the use

and extraction by resource users are absent, inactive, or misused (Ostrom, 2008).

Departures from the Optimal Allocation of a Scarce Resource

Tragedy of the anticommons

Within a given property rights regime, there are two negative extremes that exist with respect to possible sub-optimal outcomes resulting from a poor assignment of the exclusion right. The first consequence is referred to as the anticommons, where multiple co-owners who all possess the right to exclude, exercise exclusion over each other, preventing use and/or exploitation of the resource in question. As a result, the resource remains unused and the value of the resource is wasted (Buchanan & Yoon, 2000; Kosnik, 2012). Ideally, one would assume that when multiple owners manage a resource collectively, they would make a conscious effort to collaborate over resource management decisions in order for all owners to collect positive rent returns afforded by operating at Q^* , as seen in **Figure 1**. Yet, it is a more realistic assumption to note that disagreement and conflict among property rights holders are inevitable. In this sense, one can draw a parallel between this type of conflict over resources and the notion of the “prisoner’s dilemma.” In the absence of “enforceable rule imposed from outside the group,” conflict has the ability to drive rights holders to make independent decisions concerning the use and management of a resource which can ultimately lead to “inferior outcomes” (Runge, 1981). Conflict and tension among rights-holders place strain on the cooperation and communication that is required for efficient resource management, making each property rights-holder less likely to work towards a common goal with the other members of the group. This model does make the assumption that owners or resource users are always going to be uncooperative. However, even when rights holders are willing to try and work collaboratively with each other to manage a resource, problems will still arise given how difficult it can be to manage resources on a global scale with multiple nations as stakeholders (Deaton, 2012).

Overall, a tragedy of the anticommons consequentially results when “rational individuals, acting separately, collectively waste a resource by underconsuming it compared with a social optimum” of use (Heller, 1998). **Figure 2** depicts the sub-optimal anticommons (Q_1) as the underutilization of the resource from the optimal level (Q^*). Recall that at Q^* , the present value of net benefits and positive rent returns to the owner would be maximized. In correspondence with Q_1 , the resulting value (P_1) in the anticommons model represents the diminished rent that the owners would receive when compared to the more optimal rent return (P^*). In comparison with the optimal outcome, owners suffering from this tragedy have managed to

significantly reduce not only their own present value of net benefits, but have also reduced the benefits to all other co-owners.

Figure 2. Tragedy of the anticommons versus the optimal allocation of a resource.

Open access resulting in a tragedy of the commons

The second extreme case of a sub-optimal outcome is created when no user or governing body can claim ownership of a resource and therefore owns no right to exclude others. This type of regime is referred to as open access. In this case, a tragedy arises when “rational individuals, acting separately, may collectively over-consume scarce resources” and as each individual user extracts from the resource, a significant cost is imposed on the greater community of resource users (Heller, 1998; Hardin, 1968). As seen in **Figure 3**, unregulated access and intensive harvesting can drive the stock of the resource from the optimal, sustainable level (Q^*) to a point where the resource becomes exhausted (Q_2). In an open access situation it is more difficult to prevent this sub-optimal outcome because there is no way to enforce restraint over the competitive and destructive behaviour of individual resource users. It is important to note that a tragedy of the commons does not necessarily result in the extinction of the resource itself (Deaton, 2012). For example, within a fishery a tragedy would occur when fishermen have no way to preclude other users from designated fishing grounds resulting in a “lack of incentive to keep the stock at an efficient level”; [moreover], in the presence of sufficient demand, excessive exploitation of the fishery prevents the fishermen from “appropriating the scarcity rent, so instead it is lost” (Tietenberg & Lewis, 2009). Tietenberg and Lewis (2009) note that the environment and the aspects of it that society categorizes as resources are inherently economic assets. In the example of the fishery, a tragedy ultimately occurs when the owner or user no longer receives benefits, such as positive rent return from the fishery. This consequence may arise when there are still fish remaining in the stock, but their numbers have been depleted to a point where it would cost the fishermen too much to seek out the remaining stock. Given the lack of an

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exclusion right under these circumstances, the resource as an economic asset is no longer viable because the rent from the resource has dissipated.

Figure 3. Tragedy of the commons versus the optimal allocation of a resource.

The property regimes, or lack thereof, that lead to either an anticommons or a tragedy of the commons result from the poor application of the right to exclude users from a particular resource. By effectively understanding and applying these concepts to a real-world land-use issue it will be possible to identify possible management initiatives that can protect common-property resources and steer their productivity toward a more optimal allocation.

Case Study: Border Disputes in the Arctic and Impacts on Resource Allocation and Management

Research implications: What is at stake?

One contemporary land-use issue that has become increasingly prominent is the international tension brewing in the Arctic over resource extraction and management. According to Bert (2012), the power of a nation is not only defined by “military might and diplomatic influence,” but power is also measured by economic strength. In the Arctic, economic gains from current and future natural resource extraction have sparked the interest of the nations who border the vast territory including Russia, Canada, the USA and the Netherlands (Brosnan, Leschine & Miles, 2011). Despite the fact that this region is often characterized by a consistent cover of ice and snow, the warming of global temperatures has exacerbated both the demand for resources by nation states and the promise of better availability through easier access. With global temperatures increasing at an average rate of “0.6°C since the Industrial Revolution, the effect of warming in the Arctic is observed at over twice the global average rate. And that rate is expected to increase further, as white reflective ice disappears and leaves dark land and oceans, which further absorb heat” (Sharp, 2011).

In terms of the extent of ice cover over the Arctic Ocean, researchers have studied the retreating summer ice flows, which reach minimum levels in September, and have concluded that the long-term trend shows an accelerated decline in the extent of summer ice cover that is unparalleled when compared to the data measuring ice cover over the last century (Perovich & Richter-Menge, 2009; Walsh & Chapman, 2001).

Given these changes, the bordering states present in the Arctic have become concerned with three main issues. The first is that the retreat of summer sea ice has opened up shorter shipping routes and exposed natural resources; the second surrounds “long-standing, unresolved Arctic maritime boundaries;” and the third concerns the fact that several of the Arctic states have already unofficially claimed land beyond their own allowable coastal 200-mile limit (Brosnan, Leschine, & Miles, 2011). The race for Arctic territory is driven by the promise of a plethora of valuable natural resources beneath the ice and snow which holds the opportunity for current and future economic gains (Gautier et al., 2009; Brosnan, Leschine & Miles, 2011). Some renewable resources include fish and other marine mammals while non-renewable resources include energy resources, specifically natural gas and oil, lying beneath the ice. For example, in the Alaskan region alone the United States estimates that there are “30 billion barrels of oil and more than 220 trillion cubic feet of natural gas, as well as rare earth minerals and massive renewable wind, tidal, and geothermal sources of energy (Bert, 2012). Overall, the U.S. Geological Survey (2008) estimated that “the extensive Arctic continental shelves may constitute geographically the largest unexplored prospective area for petroleum remaining on earth”; moreover, the report also suggests that “90 billion barrels of oil, 1,669 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids may remain to be found in the Arctic, of which approximately 84 percent is expected to occur in offshore areas.”

The results of climactic changes in the Arctic have created the opportunity for the bordering nation states to try to enhance their economic strength. To understand the implications of their resource extraction and management decisions on the long-term sustainability of the resources and the region, it can be argued that Arctic nations have mimicked an anticommons model by having each state fabricate the right to exclude others, and will continue to operate in this way until the United Nations (UN) officially tells them otherwise. Moreover, these states are also at risk of creating a tragedy of the commons in the event that the bordering states all agree that the region should revert to open access, in which case the rush to resources will have a detrimental effect in the region.

Current structure: UN convention on the law of the sea

The fundamental aspect of the structural international property rights that govern the Arctic is the UN Convention on the Law of the Sea (UNCLOS). Specifically, Part 5 of this Convention pertains to the “exclusive economic zone”, which is the area where first, “the coastal State has sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources”; second, the “exclusive economic zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured” and; third, the “rights and duties of other States in the exclusive economic zone shall comply with the laws and regulations adopted by the coastal State” (UN, 2011). Figures 4 and 5 depict the range of the 200-mile limit in the Arctic Ocean, which represents the exclusive economic zone of each state. **Figure 4** also alludes to additional disputed boundaries between the bordering states. Currently, beyond the 200-mile limit the ocean, ice, and any resources beneath it are subject to open access.

Figure 4. The Arctic ocean and the exclusive economic zones for each bordering country.

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Figure 5. Arctic boundaries. Solid lines are agreed-upon boundaries, whereas the dotted lines indicate boundaries that are not yet settled.

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Development of the existing property rights structure

Despite the fact that as a property rights structure, the UNCLOS was originally developed as a means to put an end to worldwide conflict over the ownership of oceanic territory, confusion and tensions still persist over boundaries. Historically, before the UNCLOS (UN, 1998):

A tangle of claims; spreading pollution; competing demands for lucrative fish stocks in coastal waters and adjacent seas; growing tension between coastal nations' rights to these resources and those of distant-water fishermen; the prospects of a rich harvest of resources on the sea floor; the increased presence of maritime powers; and, the pressures of long-distance navigation and a seemingly outdated, if not inherently conflicting, freedom-of-the-seas doctrine were all threatening international peace.

By 1967, Malta's Ambassador to the UN, Arvid Pardo, addressed the UN General Assembly asking for “an effective international regime over the seabed and the ocean floor beyond a clearly defined national jurisdiction” (UN, 1998). In 1973, a conference was held in New York to address this issue; however, it would take nine years and countless negotiations between representatives of the sovereign states before UNCLOS was finalized in 1982 (UN, 1998). The Convention’s ultimate goal was to create “a legal order for the seas and oceans [that would] facilitate international communication, and promote the peaceful use of the seas and oceans, [and] the equitable and efficient utilization of their resources.” In doing so, the Convention ideally hoped to ensure that “the achievement of these goals [would] contribute to the realization of a just and equitable international economic order” (UN, 2013).

Which parties are involved in this debate and how are they situated?

Despite the fact that the UNCLOS states that countries do not have jurisdiction beyond their respective and exclusive economic zones, the countries bordering the Arctic have each already claimed territory beyond their limits as seen in **Figure 6**. One of the major actors in this rush for resources has been Russia, who was also incidentally the first to launch an expedition to the Arctic in 2007 in order to place a titanium Russian flag on the North Pole and stake its claim (Graff, 2007). Soon after, the remaining actors – Canada, the United States, and the Netherlands – all launched various missions of their own in order to stake claims in the Arctic. The race for territory was fuelled by the Intergovernmental Panel on Climate Change’s projection models, which predict that an ice-free summer in

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the Arctic is estimated to occur roughly in 2037 (Wang & Overland, 2009).

With the possibility of resource extraction occurring in the near future, many of the bordering countries have tried to acquire additional territory by submitting claims to the UN under the “Extension of Underwater Continental Shelves” clause. This clause requires scientific documentation to prove that a country can claim territory beyond its respective exclusive economic zone if there is a natural prolongation of its continental shelf (Ansink, 2011). However, many of the countries have submitted claims that overlap making it difficult for the UN to verify the legitimacy of such claims (Ansink, 2011; Cressey, 2008). Moreover, given the lack of boundary resolution, “all countries, except Norway, have stated to opt out of the binding dispute resolution provided by [the] UNCLOS” which further complicates communication and effectively fuels disagreement between states in the Arctic (Ansink, 2011; Holmes, 2008). As a result, Arctic states have seemingly engaged in competition with each other to assert and exercise sovereignty over the geopolitically undefined regions beyond their 200-mile limits (Dittmer, Moisio, Ingram, & Dodds, 2011).

In order to display dedication to Arctic territorial expansion and sovereignty, the United States, Canada, Russia, Norway, and Denmark have all published new or updated Arctic strategies and policies that are meant to govern three important themes pertaining to resource management: sovereignty, governance, and resource development (Brosnan, Leschine, & Miles, 2011). In terms of sovereignty in the Arctic, states are concerned with two issues: first is the “determination of the extent of their extended continental shelves” in order to extend the legal reach of their exclusive economic zones and second is the assertion of their sovereign presence in the Arctic (Brosnan, Leschine, & Miles, 2011). Sovereign presence refers to “activities such as establishing a fixed human presence, military exercises, or police activity including deterring, detecting, and interdicting illegal activity” by individuals or other states (Brosnan, Leschine, & Miles, 2011; Zellen, 2009).

In relation to sovereignty, effective governance in the Arctic is also a main concern for Arctic states. Governance refers to “the formal and informal policies and processes that steer human activities in the Arctic” and therefore, must be “woven into [activities involving] resource development, shipping, environmental issues, and scientific research” (Brosnan, Leschine, & Miles, 2011). The most common theme in each of the strategies put forth by the Arctic states is resource development. As the territory becomes more accessible, the opportunity to have access to resources such as oil, natural gas, fish, and terrestrial minerals – some of the most important resources that could become available to some or all of the Arctic states – exacerbates the need to control more territory (Brosnan, Leschine & Miles, 2011). In terms of oil and gas specifically, a geological survey assessment carried out by the US in 2008

Figure 6. Territory in the Arctic ocean claimed beyond the 200-mile limit of each bordering country.

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suggests that the Arctic may hold up to 13 percent of the world’s undiscovered oil and 30 percent of the world’s undiscovered gas (Gautier et al., 2009; Brosnan, Leschine, & Miles, 2011). It is not surprising to see that as accessibility to these resources has become easier and more plausible due to retreating ice and a warming climate, tensions between countries have continued to grow.

Applying the anticommons model to the Arctic

Before considering how management of resources in the Arctic has been converted into an anticommons scenario, it is important to note that all of the involved parties have ratified the UNCLOS except for the US. Given that the UNCLOS is currently the backbone structuring the international relations and the property rights regime in the Arctic, a contributing factor leading to the onset of conflict in the Arctic may have been that other states were concerned that the USA did not have to play by the same rules that they did. On the other hand, some states may have simply been seduced by the thought of power. Recall that the power of a nation is not only defined by “military might and diplomatic influence” but also by “economic strength” (Bert, 2012). For example, Russia, who was the first to physically stake a claim, would have gained the largest slice of Arctic territory beyond the 200-mile limit in the event that its new claims to territory were accepted by the UN and/or the bordering states. Whatever the motivation, the actions taken thus far by the Arctic states have led to an anticommons scenario whereby all actors are exercising an exclusion right to the point where the resources are unused, wasted, and no individual is receiving any rent return.

The Arctic states essentially all act as co-owners of a piece of property. Each state has exclusive access to a portion of that property which is defined by their exclusive economic zones. Beyond this area lies territory which, under the UNCLOS, is considered to be open access. Legally, any state can enter and extract resources from this region and no individual or state has the right to exclude others from doing so. However, a warming climate has already led to better natural resource accessibility in the region, which according to climate science is a trend that is likely to continue (Wang & Overland, 2009; Sharp, 2011). The extraction of these resources will mean considerable future economic gains, also known as rent return, for the owner that does the extracting. Each country would like to believe that the territory beyond their exclusive economic zones holds profitable resources that are just waiting to be tapped. Moreover, since the locations for most of these resources are still hidden under ice and snow, the states simply speculate that the more territory they can claim as their own, the better-off they will be in the long-run. Evidently, states have already begun staking claims in this open access region, flexing their military might and power over the disputed territory shown in **Figure 6**. The declarations made by each of the bordering states to claim territory beyond their legal exclusive economic zones and the security efforts made to patrol land are illegal efforts to exclude what is not a property right recognized by the UNCLOS.

Given that the UNCLOS cannot designate rights to owners of an area that is considered open access, the states bordering the Arctic are seemingly caught in a stalemate with each other. It is important to note that accepting the new boundaries defined in **Figure 6** is not a plausible solution. First, **Figure 6** is an oversimplification of the disputed regions. Recall that in actuality, part of the problem for the UNCLOS during the attempted dispute resolution process was that some of the states had claimed overlapping territory, and it was therefore difficult to determine who was entitled to what land (Ansink, 2011). Second, the disputed area is still considered open access, meaning that any country around the world is legally allowed to access it. For example, if in the future, more direct shipping routes opened up across the Arctic oceans, countries would be passing through waters legally accessible to them as opposed to being subjected to the laws, regulations, and taxes of multiple states. Since the Arctic states have yet to release their unofficial and illegal right to exclude other countries from accessing the disputed territory, it is likely that any resources that are available or will become available will be underused and wasted in terms of rent return. In relation to the theoretical model of an anticommons scenario (**Figure 2**), the Arctic states are currently operating at a sub-optimal level (Q_1) of resource management; since each state is separately exercising the right to exclude, they are collectively wasting the resources in the region as opposed to operating at the ideal level (Q^*) where the states would receive positive rent returns and available resources would be managed sustainably (Heller, 1998).

Heading for a tragedy of commons under open access in the Arctic

The current anticommons situation in the Arctic is not the only sub-optimal outcome that the bordering Arctic states have created a perfect setting for. Given the unequal distribution of unclaimed territory in the Arctic, there is a possibility that the Arctic states will not be able to come to a legally binding compromise over unclaimed territory and resources in the region. If each state were finally forced to remove their military muscle due to a breach of international law, the issue may turn into a tragedy of the commons as a result of open access to resources. It is important to note that resources in the Arctic can be characterized as “divisible,” meaning that if one person consumes a part of a resource, the benefits to another user begin to diminish (Gardner, Ostrom & Walker, 1990). It is for this reason that if each state were to lose its ability to enforce its unofficial exclusion over the other states, they would all most likely begin making individual and selfish extraction choices. This would ensure that each state maximizes its own present value of net benefits. However, as represented in **Figure 3** by Q_2 , the cumulative result of this behaviour on the resources will be over-consumption, which will eventually lead to their non-renewable depletion.

Multilateral cooperation: Emerging from the anticommons while preventing a tragedy of the commons

While the current status of international relations in the Arctic has led the states to suffer from an anticommons problem, the opportunity for them to make their way towards a more cumulative, optimal outcome does exist. Ideally, mutual cooperation and negotiation between all of the Arctic states is necessary to achieve peace and effective resource management. However, given that the UNCLOS has failed to provide effective resolution of boundary disputes in the Arctic, an alternative option is needed to foster cooperation and communication among these bordering Arctic countries.

In 1996, the Ottawa Declaration established an institution called the Arctic Council as a “high level intergovernmental forum to provide a means for promoting cooperation, coordination and interaction among the Arctic States, with the involvement of the Arctic Indigenous communities and other Arctic inhabitants on common Arctic issues” (Arctic Council, 2012). Despite the fact that the Arctic Council has existed since 1996 and yet tensions in the Arctic have persisted, its unrealized abilities should not be underestimated or overlooked.

One benefit of the council is its diversity. First, the council is composed of eight different countries: “the Nordic countries (Norway, Sweden, Finland, Denmark including Greenland, and Iceland), Russia, Canada, and the USA;”

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second, the Council also includes particular indigenous groups; and third, the Council welcomes the perspective of environmental NGOs, as well as scientific organizations with an Arctic or northern scope (Keskitalo, 2007; Tennberg, 2000). Moreover, on May 15th 2013, Canada acquired the chairmanship of the Arctic Council from Sweden beginning its two-year term as the head of the Council. As Canada's new Arctic Council minister, Nunavut MP Leona Aglukkaq has vowed to also broaden the Arctic Council by including the businesses belonging to the private sector to take part in debates through an "Arctic business forum as a way for northerners and northern business to share ideas and solutions" (Bell, 2013; Weber, 2013). Historically, the focus of the Arctic Council has been on environmental protection and scientific research (Bell, 2013). According to Aglukkaq, this new business forum will launch in 2014 and will not impede the Council's attention towards environmental issues (Bell, 2013; Weber, 2013).

While no multilateral agreements yet exist that can aid this specific issue in the Arctic, it would be prudent for the Council to shift and broaden their focus by realizing that negotiations are "not a process of discovering what [they] want, but a process of reflecting upon what there is the most reason to want" (Raz, 1997). It is unreasonable that the Arctic states have positioned themselves in such a way that an anticommons scenario has already erupted and they have paved the way for a future tragedy of the commons in the Arctic over resources that have not yet even been confirmed or become available. However, the question that remains is whether or not these actors are willing to hold off on military action at least long enough to plan for the future conservation of untapped resources. Given that it is reasonable for humans to extract from a resource to support the basic needs of living, the Arctic Council should begin planning for a future where property rights are legally defined and the available territory and accompanying resources are shared or equally divided in such a way that sustainable use ensures their longest possible existence and use.

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