

Resilience and legitimacy of natural resource governance through adaptive co-management: The case of Nunavut's Co-Management Boards

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In recent decades, commons, i.e. natural resources to which all members of a society are entitled, have received great attention within scientific discourse as well as in the administrative practice of many countries. As various studies have shown, institutions are needed to establish collectively binding rules and regulations for the use of those natural resources. In this context, co-management arrangements have become a favourite form of organization applied by the authorities in many countries around the world. One case in point is that of the Co-Management Boards created for the newly established Nunavut territory in the Canadian Northern Territories. It is made up of representatives from federal as well as territorial governments, plus committed civil society individuals. Starting from an institutional approach, this contribution investigates to what extent these new institutions succeed in fulfilling the requirements of resilience and legitimacy of resource governance. As will be argued, Nunavut's Co-Management Boards not only manage to meet these tasks in a formal sense, but also constitute platforms for intercultural exchange of knowledge and experiences, – a factor that makes these institutions unique.

Keywords: adaptive co-management, natural resources governance, resilience, legitimacy, Nunavut's Co-Management Boards

Resilienz und Legitimität der Governance natürlicher Ressourcen durch adaptives Co-Management: Der Fall der Co-Management Boards von Nunavut

Im Zuge der Diskussion um die so genannten Allmende-Güter, natürlicher Ressourcen also, die allen Mitgliedern der Gesellschaft als Kollektivgut zustehen, hat sich in wissenschaftlichem Diskurs wie auch in der administrativen Praxis vielerorts die Überzeugung durchgesetzt, dass es Institutionen braucht, die für verbindliche Regeln für den Gebrauch dieser Ressourcen sorgen. Eine Organisationsform, die sich für die Governance natürlicher Ressourcen in den letzten Jahren vielerorts durchgesetzt hat: die der Co-Management Arrangements. Auch für den kanadischen Norden wurden solche Institutionen ins Leben gerufen, die sich aus Vertretern von Regierungsbehörden auf föderaler und territorialer Ebene wie auch aus engagierten Personen aus der Zivilgesellschaft zusammensetzen. Ausgehend von einem institutionellen Zugang geht dieser Beitrag der Frage nach, ob diese Institutionen den Anforderungen an Resilienz und Legitimität der Governance natürlicher Ressourcen gerecht wird. Wie herausgestellt werden soll, sprechen nicht nur formale Kriterien für die Annahme, dass dabei sowohl der Resilienz als auch Legitimität weitgehend entsprochen werden kann, sondern dass auch die interkulturelle Kommunikation und der Austausch von Wissen wie Erfahrungen in diesen Gremien ein durchaus bemerkenswertes Alleinstellungsmerkmal darstellen.

Resiliencia y legitimidad de la gobernanza de recursos naturales a través de la cogestión: el caso de los comités de cogestión de Nunavut

En las últimas décadas, los recursos comunes recibieron una gran atención tanto en los discursos científicos, como en la práctica administrativa de muchos países. Como muchos estudios demuestran, se necesitan instituciones que establezcan normas y reglamentos vinculantes y también regulaciones para evitar la sobreexplotación de los recursos naturales afectados. En este contexto, los acuerdos de cogestión se transformaron en una forma de organización cada vez más aplicada por el aparato burocrático

de muchos países alrededor del mundo. Estas instituciones se crearon también en el norte de Canadá, las cuales se componen de representantes de los organismos gubernamentales a nivel federal y territorial, así como de representantes de la sociedad civil. A partir de un enfoque institucional, esta contribución busca entender hasta qué punto estas nuevas instituciones logran cumplir con los requisitos de resiliencia y legitimidad de la gobernanza de recursos. Como se argumentará, los comités de cogestión establecidos, no solo logran cumplir estas tareas en un sentido formal, sino que también constituyen plataformas de intercambio intercultural de conocimientos y experiencias, un factor que hace de estas instituciones algo único.

1 Introduction

The main tasks of political settings for governing common resources are twofold: On the one hand, policies and political practices related to resource governance need to be resilient. That is to say that resource management has to be able to cope with uncertain and unexpected circumstances. According to Holling (1978), an adaptive approach to resource management subsequently opens up for greater resilience for natural, economic, and social systems. “That is, if we learn how to adjust and adapt, natural and societal systems will be better able to bounce back or recalibrate relative to changing circumstances or sudden shocks. The alternative is to be brittle and therefore more vulnerable or fragile when evolving circumstances make behaviour that worked well in the past no longer relevant.” (Mitchell 2004: 13) In democratic societies, however, the other key task is that of legitimacy. Resource policies have to ground their authority on a principle of political legitimacy, “(...) which shows why their access to, and exercise of, power is rightful, and why those subject to it have a corresponding duty to obey” (Beetham 2004: 107). Therefore, resource governance ought to have instruments in place “(...) to provide legitimacy for a vision and to facilitate the implementation of goals and objectives related to the vision. Such instruments include political commitment, statutory foundation, administrative arrangements, financial support, and stakeholder support. The more instruments in place, the more likely that a vision will have credibility or legitimacy.” (Mitchell 2004: 11) This takes commitment from senior elected officials as well as the political support from Federal and Provincial governments. Explicit and specific administrative directives and structures can lead to increased support for a vision and guide people with responsibility for it. Without directives and structures it is too easy for individuals to interpret political statements or legislation in a way that supports their own needs or interests (Mitchell 2004: 12). Most importantly, these instruments construct an image in which their own ways of responding to political problems or the challenges of socio-cultural and political diversity appears convincing to a majority of the ruled and thus legitimate.

This article explores the extent to which the co-management boards established under the Nunavut Land Claims Agreement open up for greater resilience and legitimacy of the management of natural resources in the territory.

2 Co-management in general

If we talk about agreements that established institutions made up by representatives from government and civil society, these new bodies are often subsumed under the term “co-management”. Similarly to governance, co-management has become a “catch all”-term for power-sharing, a challenge in capacity building for both community and government, a mechanism to implement aboriginal rights, and an arena in which different systems of knowledge can be brought together. “Co-Management has been used as a catch-all term from the various responses to growing demands for a role for users and communities in environmental management and conflict resolution” (Berkes 2007: 19). To cut a long story short, the basic notion of co-management is that of: “(...) sharing power and responsibility between the government and local resource users.” (Berkes et al. 1991) Meanwhile, it is also clear that co-management shares features of other partnerships of environmental governance arrangements; it is a kind of partnership that bridges scales and links two or more levels of governance. Additionally, co-management also exists in unionised management policies within kinds of businesses and private enterprises, too (Bierbaum 2000). To sum up, co-management includes multi-stakeholder bodies like organisations, policy networks, institutional networks, boundary organisations, polycentric systems, and epistemic communities.

According to Berkes (2007), however, co-management can be seen from various approaches: First of all, co-management minimises problems of institutional interplay described by Young (2002). This theory lined out that sometimes problems arise from the fact that certain issues are dealt with on different scales or levels governance when institutions on one level do not know what their counterparts on other levels are doing. Co-management links institutions of different levels together and thereby enhances communication among them. Secondly, in most cases co-management constitutes a form of power-sharing. Instead of installing hierarchical models of command-and-control, co-management ensures that voices of different levels of governance as well as those from civil society count equal. Third, co-management calls for new institutions and is therefore also understood as a form of institution-building. Fourth, co-management also enhances trust between different actors and different levels of governance. Fifth, co-management also creates new chances for social learning by installing institutions that bring together different beliefs, value systems, (cultural) traditions, and local knowledge. Sixth, co-management is also a form of problem-solving which ensures that different levels can cooperate and find solutions to conflicts between and among them. And last but not least, co-management touches on the very core of what is understood under the term “governance”: A belief that governing is no longer done by formal government institutions alone, but rather the result of complex interactions within networks between government and civil society institutions and representatives.

In its essence, though, co-management models fall under the category of collaboration. According to Borrini-Feyerabend et al. (2004), there are various ways in

Table 1: The various ways in which collaboration, including co-management, is understood (according to Borrini-Feyerabend et al. 2004)

Collaboration as a form of self-defense	In a changing world, indigenous peoples and local communities need more than ever strong internal and external forms of cooperation to be able to withstand various threats and dangers.
Collaboration as a response to complexity	The natural resource base of livelihoods cuts across a variety of political, administrative, cultural, and social boundaries, and there exist a multiplicity of concerned social actors.
Collaboration for effectiveness and efficiency	Different social actors possess complementary capacities and comparative advantages in management, which can be profitably harnessed together.
Collaboration for respect and equity	A fair sharing of the costs and benefits of managing natural resources and ecosystems is essential for initiatives aiming at human development and conservation with equity.
Collaboration through Negotiation	At the core of most co-management agreements are formal and / or informal plans and agreements. Such arrangements need to be negotiated through a fair and flexible process of learning-by-doing.
Collaboration as a social institution	The harnessing of complementary capacities and the fair distribution of costs & benefits are the foundation of many institutional arrangements for co-management.

which collaboration can be understood (see table 1): a form of self-defense, a response to complexity, a way of achieving more effectiveness and efficiency, a way of reaching more respect and equity, a form of negotiating, and a social institution. Furthermore, collaboration and shared decision-making in co-management institutions are also a form of participation. On Arnstein's (1969) ladder of participation, collaboration within co-management institutions would in many cases fall into the category of "tokenism" (Diduck 2004). That is to say that in many cases consultation and information of formal government institutions prevails. Full citizen control and delegated power is rather seldom in this realm.

A decisive factor for co-management is the setting within which it takes place. As explained later in this paper, however, co-management sometimes deals with socio-ecological change in intercultural environments. In fact, "one of the emerging poles of increasing interest in this widening circle is that of culture and identity" (Doubleday 2007: 228). In this case, it is necessary for minority groups to become successful practitioners of adaptive co-management in a new approach to governance. Furthermore, there's increasing need for informed praxis. "When working across an interface of cultural difference in attempting co-management, as is the case of management of renewable resources in Canada's North, we need to actively consider the role of culture in adaptive practice." (Doubleday 2007: 228) Furthermore, asymmetries of power often impede co-management in practice: As we know from the work of Nadasdy (2003), inequalities rooted in power relations and cultural

difference can constitute insurmountable obstacles to effective co-management. At this point, Doubleday (2007) argues that culture and culture-derived identity may also serve as a power bases for minority groups and cultures “in the sense of being inherent properties of cultural/social/ecological systems, and differ from negotiated formal powers” (Doubleday 2007: 230). Therefore, the responsiveness to local knowledge and traditional values of indigenous groups is likely to decrease power asymmetries that exist on paper by informed praxis.

In the Canadian context, a variety of participatory approaches to environmental and resource management have been developed under the heading of co-management. These arrangements were designed in close reference to the definition of the International Union for the Conservation of Nature which defined co-management as: “(...) a partnership in which government agencies, local communities and resource users, non-governmental organisations and other stakeholders negotiate, as appropriate to each context, the authority and responsibility for the management of a specific area or set of resources” (IUCN 1996: 1). Understood as the “joint management of the commons” (Carlsson & Berkes 2005), co-management has led to establishment of institutions for joint consultation and decision-making on the resources of the Canadian North. In this sense, co-management arrangements “(...) typically include decision-makers other than state or industry managers, encourage participation of local resource-users, stress negotiation rather than litigation in situations of conflict, and try to combine Western science with traditional and local knowledge.” (Diduck 2004: 517). Established this way, though, co-management institutions can also become platforms that support learning by having all stakeholders on board in the initial negotiation process, by producing and institutionalising an organisational vision of a desirable future, by identifying expected results and indicators with respect to each plan, by implementing the plan and then monitoring and evaluating options taken, by modifying actions, plans, and agreements based on evaluation results, and by engaging with resource-users throughout these processes in a participatory and ongoing manner (Diduck 2004). Such an approach would also back the legitimacy and resilience of co-management arrangements. The following part will look at the example of Nunavut’s co-management boards and the extent to which these institutions establish legitimacy and resilience of resource governance in the territory.

3 Co-management in practice: the case of Nunavut’s Co-Management Boards

In the Canadian North, conditions for a long time clearly lacked political legitimacy: While structural characteristics and institutional arrangements only scarcely mirrored a southern model of a conventional, provincial government, residents were denied access to lands and resources in their neighbourhoods. For instance, voting rights for the North’s native Inuit population did not exist up into the nineteen-

sixties. This all culminated in a situation in which the political order *north of 60* and especially the outset of resource governance had no legitimacy and thus desperately called for change (Dickerson 1992). Therefore, the creation of a territory with its own governmental system in the Central and Eastern Arctic was the declared aim of the Tunngavik Federation of Nunavut (TFN), the emancipation-movement of the Canadian Inuit. In the phase of negotiations with the federal government, the organisations' president Paul Quassa lined out that: "We want to be full citizens in our home and country, our native land. Settlement of the land claims and creation of a Nunavut Territory will bind us closer to Canada and to all Canadians and promote a more productive relationship between Inuit and the federal government" (Paul Quassa as quoted in Dickerson 1992: 10). A new political order fulfilling this vision and thus providing more political legitimacy was found in the Nunavut Land Claims Agreement signed by federal and Inuit negotiators in 1993. This treaty between the Canadian federation and the Inuit fundamentally changed the political order in the Canadian North: By dividing the Northwest Territories into two parts, a new territory called Nunavut emerged and with it new institutional settings in the North. In the Canadian context, this new framework was not a radical departure from already existing approaches. Instead, "the 'Nunavut package' (...) was designed to both accommodate Inuit self-government aspirations yet fit comfortably within established traditions of main-stream Canadian governance" (Hicks & White 2000: 31). It is nonetheless not entirely misleading to assume that, for the federal government, getting Inuit consent on a new governance-model for the North also meant climbing up a step towards more political legitimacy in the country, too.

At the same time, restoring resilience in the territory was a declared aim of the Canadian government. The establishment of the so-called co-management boards prior to the Nunavut Land Claims Agreement not only aimed at implementing the treaty, but also meant reforming the resource governance regime in the Canadian North. Usually, we can identify three efforts of restoring governance: First of all, it envisages dealing with an unknown future by building up resilience, rather than by relying upon prediction. Secondly, it aims at searching for grounds of support other than democratic decisions. And finally, it is an attempt at engaging in multi-level governance (van Gunsteren 2006). The effort of restoring resilience is also relevant for governance in general: "The move from government to governance can also be seen as part of the effort to restore regime resilience. Here also, as was the case with output legitimacy and consensual politics, the price for this improvement is a limitation of the reach of politics – and thereby of democratic deliberation and decision-making" (van Gunsteren 2006: 88). To this end, establishing the five co-management boards in not only turned the tide for the local, predominantly Inuit population of the territory (Borsdorf 2008), but also constituted an early experiment with governance-arrangements more generally.

Constituting a key question relevant for individuals and society, natural resources are the central drivers of economic growth and well-being. Some of these resources are essential to private businesses without being important to all citizens. On the

other hand, there are some resources which are relevant to all of us such as air, water, crops, and animals. These resources are called “the commons” (Barr 2008). In his famous study on the problematic overconsumption in Western societies, Garrett Hardin (1968) outlined that the idyllic situation of a subsistent use of resources has come to an end. “Finally, however, comes the day of reckoning, that is, the day when the long-desired goal of social stability becomes a reality. At this point, the inherent logic of the commons remorselessly generates tragedy.” (Hardin 1968: 1244) This overexploitation of natural resources has also left its impacts on the situation in Nunavut. But it were the southerners that overhunted the lands and overfished the seas, while Inuit lifestyles and their relationship to these resources stayed subsistent. In her seminal book on *Governing the Commons*, Ostrom (1990) outlined the necessity of reinforcing the development of institutions for collective action to anticipate the Tragedy of the Commons. However, such institutions would bind governments, markets and consumers in collectively found agreements on how much to hunt, fish, or harvest. Much in the tradition of such an approach, the Canadian Government installed the so-called Co-Management Boards in the territorial north which initially sought to avoid such a tragic situation in the Arctic.

Within the Canadian political economy, Nunavut occupies the position of a resource hinter-land: A weak economic basis and the high degree of dependence on volatile prices for its products on world markets dominate its economic position in the domestic Canadian context. Problems like high unemployment rates could not be solved without federal funding (Borsdorf 2006; Hicks & White 2000). In the policy area of resource management, though, the Nunavut Land Claims Agreement has transferred rights to lands and resources over to Inuit control: 342,240 km² of exclusive land ownership and another 36,000 km² of land use rights were handed over to territorial and local authorities (Hicks & White 2000). But while these exclusive ownership rights to lands and resources were negotiated and co-management boards as advisory bodies came into existence, final decision-making power in the field of resource management remained in the hands of the federation.

Alongside with discussions on the federal level, the Inuit themselves began to fight for their rights to lands and resources (alongside with many other indigenous groups in Canada). In this context, though, it is essential to understand that the federal government of Canada still has proprietary rights to lands and resources in the territorial north (Mitchell 2004). This situation had to change because: “Land and resources are far more than merely something to exploit, as is often the case in non-aboriginal society” (Booth & Skelton 2004). Section 35 of the new Canadian constitution of 1982 meant an enormous improvement in this struggle for indigenous rights in Canada (Booth & Skelton 2004; Borsdorf 2006; Chandran 2002). In this section, the federal government recognised that First Nations have a right of access to and use of resources. From that time onwards, however, aboriginal peoples had to be consulted in many cases that concerned their lands. Nowadays, there is an obligation for federal and provincial authorities to negotiate with aboriginal leaders over natural resources (Booth & Skelton 2004). These obligations were also a central factor that

significantly facilitated the negotiations that lead up to the Nunavut Land Claims Agreement as well as the establishment of the so-called Co-Management Boards in the territory.

As institutions of public governance, Nunavut's so-called Co-Management Boards were created in the course of the negotiations that lead up to the *Nunavut Land Claims Agreement*. These new institutions followed the approach of *environmental resource management* (ERM) and thus had the task to deal with environmental issues within a unique institutional setting (White 2002, 2003). While not constituting a Nunavut-specificity, Canadian federal departments retained crucial influence over the management of land and resources due to their personal presence in the boards. To be more precise, these institutions are neither federal, nor territorial (White 2003, 2003). Rather, they constitute advisory institutions comprising the views, approaches and interests of federal, territorial and civil society appointees. While Nunavut became a new territory in 1993, not all rights to lands and resources were given to their full control. "Nunavut has its own legislative assembly, holds unrestricted harvesting rights within the territory, includes water and mineral rights within 10 per cent of the land base in the land title, and requires substantial consultation with wildlife and environmental co-management boards, which have significant Inuit representation" (Booth & Skelton 2004: 106–107). Therefore, there was not much doubt in the scientific community that establishing Nunavut was "the most promising and innovative political development to appear on the northern horizon" (Bone 2003: 189). As mentioned before, the developments that lead up to the Nunavut Land Claims Agreement took place under very favourable circumstances as well as court decisions. "Moving from Aboriginal title to a land claims agreement requires a formal process. The land claim process resolves the matter of size, geographic area, and access to resources" (Bone 2003: 195). While this process lead to the successful implementation of the Nunavut Land Claims Agreement, some institutions remained in place that existed prior to the establishment of Nunavut: the so-called Co-Management Boards (see fig. 1).

Nunavut's five Co-Management Boards have different focuses: The most important Co-Management Board is the *Nunavut Wildlife Management Board*. It deals with wildlife management in the entire Nunavut territory and consists of three representatives of the Canadian federal government, three members of Nunavut's territorial bureaucracy, two people from civil society, and one independent member. The *Nunavut Water Board* deals with water resources in Nunavut and consists of territorial as well as civil society representatives. The *Nunavut Surface Rights Tribunal* is the institution that deals with all matters that concern natural resources that were given to the Inuit under the umbrella of the *Nunavut Land Claims Agreement*. It only consists of Inuit and is intended to settle conflicts that concern non-renewable natural resources. The *Nunavut Impact Review Board* was established to supervise and evaluate the environmental impacts of resource development in the territory. It is made up of two representatives from Canadian federal government institutions, three representatives of the Nunavut territorial authorities, and four people from civil society. The Nunavut Planning Commission is the central institution that deals with sustainability issues and the planning for the future. It consists of two representatives from

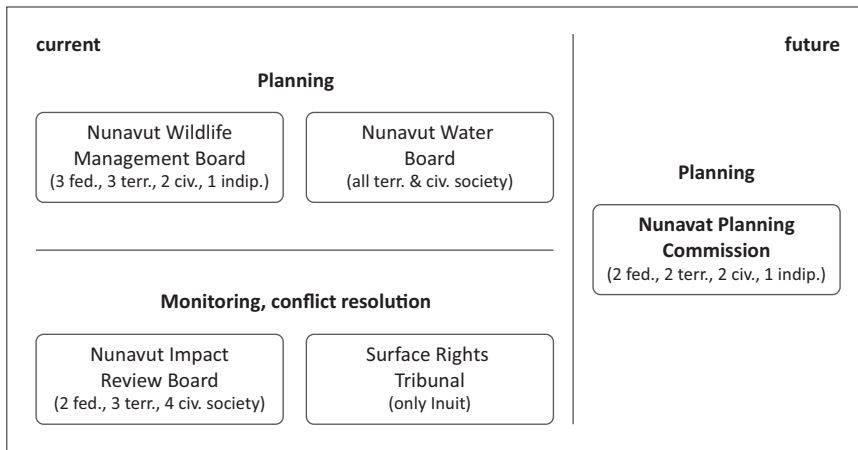


Fig. 1: Nunavut's Co-Management Boards

federal government institutions, two people from Nunavut's territorial authorities, two people from civil society organisations, and one independent member.

Currently, many issues dealt with in the Co-Management Boards revolve around a phenomenon that seriously threatens wildlife and fisheries in Nunavut: the problem of Climate Change. "The premier's view was that climate change had already been destroying the environment of his territory and that such destruction could never be compensated for through equalisation payments from the have provinces that benefited from their reliance on fossil-fuel energy. Therefore, he supported Kyoto. (...) In terms of social interests, polls suggested that the general public was strongly in favour of Canada ratifying the Kyoto Protocol, while many in the business community opposed it. With such conflicting perspectives, it was a challenge to develop a national position regarding the protocol" (Mitchell 2004: 4). Furthermore, the melting of the poles managed to whet the appetite of some countries closest to the Arctic (Russia, Canada, the United States of America), especially regarding non-renewable resources of the region (Borsdorf 2008; Krücken 2009). Therefore, scenarios of a changing Climate has also been an important issue in all meetings of the Arctic Council, an institution within which all indigenous groups living in the Arctic cooperate and try to increase pressure on international negotiations regarding Climate Change.

4 Discussion

Looking at the extent to which resilience has been altered in Nunavut through the establishment of co-management arrangements, we need to bear in mind four vital categories of factors for building resilience: First of all, building resilience means learning to live with and accept change and uncertainty. Secondly, it calls for nurturing diversity as a means of ensuring greater options for renewal and reorganisation.

Third, it creates the chance of combining knowledge types to enhance learning. And finally, it means creating conditions and opportunities for self-organisation (Folke et al. 2003). Applied to the example of Nunavut's co-management boards, this means that these new institutions bear the potentials of becoming settings that enhance resilience in the territory: The boards cover all issues that are relevant for the territory. Hunting and fishing quota can be issued according to the knowledge available on the amount of animals present in the Nunavut settlement area. Having institutions like the Nunavut Wildlife Management Board in place already ensures that both traditional and scientific knowledge have a forum to be brought together in helping to adapt to change and uncertainty. "More significantly, from the perspective of this analysis of the role of culture in adaptation, we see that adaptive capacity can also be understood as an important cultural property analogous to resilience in ecological terms" (Doubleday 2007: 243). In this view, co-management boards are not only places where different management cultures meet, but also constitute platforms for intercultural learning. Different perspectives and interests herald that dealing with change and uncertainty is part of the programme pursued by these institutions. Furthermore, having the Nunavut Impact Review Board in place can also be read as a sign for the willingness to deal with change and uncertainty in Nunavut's social-ecological landscapes by all actors involved. To sum up, Nunavut's co-management boards are excellent institutions for dealing with change and uncertainty in the territory's settlement area appropriately.

Post-colonial relations in the Canadian North are the central focus of attention when we look at the legitimacy of Nunavut's co-management bodies. As outlined before, legitimacy is a crucial element of democracy (Ewert et al. 2004), and was missing in the area north of 60 for quite a long time. Up until the time speaking, asymmetries of power are a crucial element in the relationship between Nunavut's predominantly Inuit population and Canadian federal authorities. "A dynamic view of co-management as a behavioural form that is both adaptive and participatory is useful. Arguably, it offers an alternative to a fixation on asymmetries of power as obstacles to the emergence of co-management" (Doubleday 2007: 231). To this end, collaboration in co-management boards can be seen as a form of self-defence for Nunavut's population. Despite the fact that resource issues remained in the legislative hands of federal authorities, Co-Management Boards clearly enable Nunavut's citizens to play a more active role in resource governance via influence on their appointed fellow-Inuit officials in these institutions. Therefore, we could argue that despite power asymmetries in relations between Nunavut's officials and federal authorities, the establishment of co-management boards mean an enormous improvement regarding the legitimacy of resource policies in and for the Canadian North. But while input legitimacy is only ensured by the fact that members of the co-management boards are appointed by democratically elected officials of Nunavut's territorial authorities (a rather indirect legitimation), federal authorities always followed the recommendations of Nunavut's co-management boards (Borsdorf 2008). Hence it is not entirely wrong to assume that output legitimacy – "in other words, whether peo-

ple are content with the product of policies, like customers in the supermarket” (van Gunsteren 2006) – clearly exists in the case of Nunavut’s co-management boards.

Taking into account both resilience and legitimacy, however, co-management boards are also important platforms for sustainability learning in the territory. Interpreted with Tábara and Pahl-Wostl’s (2007) famous SEIC framework, these collaborative arrangements between federal and territorial authorities ensure that: “(...) energy and resources (e) use is consistent with low-range needs and goals; generate diverse information and knowledge (i) about the system to ensure adaptability; and lead and manage change (c) using the three proceeding factors so that the change does not exceed the system’s size, thresholds, and connections” (Diduck 2004: 506). To this end, cooperation and collaboration in co-management boards invite officials from federal and territorial authorities as well as members of civil society to learn from each other’s approaches to sustainability.

Exceeding questions of resilience and legitimacy, though, co-management boards can be seen as institutions for innovative governance of natural resources in the Canadian North. In the light of an emerging need for participatory processes in natural resource management (Renn 2003), adaptive co-management arrangements signified a move towards more effective and democratic natural resource management (Stoll-Kleemann & Welp 2003) by establishing platforms upon which federal, territorial and civil society representatives can communicate and cooperate in reaching a more sustainable resource use in the territory. In line with this insight, Doubleday (2007) proposes three further additions that would ultimately move us closer to envisioning an emergent, adaptive co-management and sustainable future: “First, we might consider the adoption of a long-term developmental approach to adaptive co-management linked to evolving norms of social and ecological sustainability, recognising cultural resilience as an important emergent property of complex and diverse social/ cultural ecological systems. Second, we need to clarify the potential of culture as well as citizenship for creating windows of opportunity. Third, we need to know more about the adaptive potential of co-management as a process for enabling transformational learning and nurturing self-efficacy in these complex systems” (Doubleday 2007: 244). Such an approach could ultimately further improve co-management of natural resources in Nunavut significantly.

5 Conclusion

Returning to our key question, however, we can hold that the co-management boards established under the Nunavut Land Claims Agreement open up for greater resilience and legitimacy of the management of natural resources in the territory. Although full participation of the local (Inuit) population in all resource issues could not be reached up until the time speaking, co-management boards clearly constitute an improvement in this realm. Furthermore, creating institutions for governing the Commons in a collaborative and cooperative fashion are in line with suggestions

made by several scholars such as Ostrom (1990). Last but not least, restoring resilience by creating institutions for collaborative governance appears to have been a central aim of the establishment of co-management in and for the Canadian North. Nunavut's Co-Management Boards clearly try to establish greater resilience for natural, economic, and social systems.

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