

Which Canary in the Coalmine? The Arctic in the International Climate Change Regime

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1. Introduction

Thanks to the wild and inspiring beauty of its pristine landscapes, to the presence of charismatic mega-fauna, and to its particular sensitivity to climate variations, the Arctic has become a key reference in the climate discourse. Images of polar bears and the cracking of sea ice illustrate a large number of publications and presentations dedicated to climate change. The vulnerability of the region to climate impacts is enhanced by the fact that local temperatures increase almost twice as fast as the rest of the planet.¹ Furthermore, in the High North, this warming is materialized by dramatic physical changes reshaping landscapes and profoundly affecting human activities. While the increase of temperatures can be much more pernicious and difficult to experience in other regions, the thawing of permafrost and retreating sea ice are, indeed, phenomena that individuals can more easily comprehend. In this context, the Arctic has often been described as the climate crisis' "canary in the coal mine".² Additionally, a rise in the average temperature of the region will also have global repercussions – for instance, the Arctic being one of the main contributors to rising sea-levels as a result of the progressive melting of the Greenlandic icecap.³ Beyond its symbolic function, the region seems particularly relevant to international climate policy *584 and, in particular, to the international regime established under the United Nations Framework Convention on Climate Change (UNFCCC).⁴ This regime constitutes the main response of the international community to the need to address both the causes and consequences of climate change.

This chapter will, thus, consider the extent to which the climate regime addresses the particular vulnerability of the Arctic. The first step of this study will analyse references to the Arctic region in the outcomes of climate change negotiations, as well as propose further opportunities for these specificities to be taken into account. It will then consider if the status of the eight states sharing territorial jurisdiction in the region is comparable under the regime and the degree of their consequent obligations. Finally, the third section will deliberate whether regional cooperation, under the

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¹ RK Pachauri et al. (eds.), *Synthesis Report of the Fourth Assessment Report* (Geneva: IPCC, 2007).

² This allegory refers to the use by miners of birds to signal the imminence of a danger of a gas explosion.

³ See the Key finding 3 of the Executive Summary of "SWIPA – Snow, Water, Ice and Permafrost in the Arctic", reading as follows: "Arctic glaciers, ice caps and the Greenland Ice Sheet contributed over 40% of the global sea level rise of around 3 mm per year observed between 2003 and 2008", (AMAP, 2011), 11.

⁴ United Nations Framework Convention on Climate Change [hereinafter UNFCCC], 31 ILM 849.

auspices of the Arctic Council, has offered a venue to increase the visibility of Arctic specificities in the development of the international climate regime.

2. The Low Profile of the Arctic in the Outcomes of the International Climate Change Regime

This section identifies to which extent the Arctic is referred to explicitly in the main developments of the climate change regime. The first subsection briefly presents the function of the Intergovernmental Panel on Climate Change (IPCC) and its attention to the role and vulnerability of the Arctic in the climate system. The following subsection then considers whether the UNFCCC, the Kyoto Protocol⁵, and related decisions, include references to the Arctic and to which extent they may be more specifically relevant to the region. Finally, the current negotiations related to the future of the climate regime will be introduced in order to consider whether this process could offer an opportunity to take a stronger account of the vulnerability of the Arctic.

2.1. The Arctic in the Reports of the Intergovernmental Panel on Climate Change (IPCC)

2.1.1. Introduction to the Role and Function of the IPCC

The IPCC was established as early as 1988 as a joint initiative between the UN Environmental Program (UNEP) and the World Meteorological Organization *585 (WMO) to “provide internationally co-ordinated assessment of the magnitude, timing and potential environmental and socio-economic impact of climate change and realistic response strategies.”⁶ The main method of work of the panel consists in collecting all relevant research outputs – mainly scientific research but also building on the expertise of governments and NGOs – and periodically preparing thorough assessment reports. The synthesis reports accompanying these assessments constitute a very authoritative expression of the current findings of climate research.

The work of the IPCC is divided among three main working groups, dealing respectively with the physical aspects of the climate system (working group I), the natural and socio-economical consequences of climate change (working group II), and the options for mitigating climate change (working group III). The periodical assessment reports are composed by a report released by each of the working groups, as well as a synthesis report prepared jointly. The drafting of the report involves both scientific peer-reviewed research, as well as a governmental review. So far, four assessment reports have been published by the IPCC (in 1990, 1995, 2001 and 2007). A fifth report, currently under redaction, is expected for 2014.

However, the Panel is independent of the UNFCCC regime. Under the Convention, the Subsidiary Body for Scientific and Technological Advice (SBSTA) is mandated to “provide the Conference of the Parties (COP) and, as appropriate, its other subsidiary bodies with timely information and advice and scientific and technological matters

⁵ Protocol to the Framework Convention on Climate Change [hereinafter Kyoto Protocol], 37 ILM (1998), 22.

⁶ UNGA Resolution, UN Doc. A/RES/43/53, para. 5.

relating to the Convention.”⁷ The Convention does not directly refer to the function of the IPCC in the regime that it established.⁸ The first COP, however, recognized the key role of the Panel as a “source of the latest international scientific, technical, socio-economic and other information.”⁹ It also mandated the SBSTA to establish working relationships with the Panel.¹⁰ At its first meeting, the SBSTA established an informal Joint Working Group (JWG) composed of officers of the UNFCCC and of the IPCC and their respective secretariats.¹¹ This JWG holds meetings on a regular basis to ensure coordination and the exchange information on the activities of the two institutions. The provisions of the Kyoto Protocol also acknowledge the important role of the Panel.¹² *586

2.1.2. References to the Arctic in the Outputs of the IPCC

The second working group has extensively considered special aspects related to the vulnerability of the Arctic. In 1990, its first report already highlighted “a larger increase [of the temperature] of twice the global mean in the polar regions”¹³ and the fact that “most at risk are those communities in which the options for adaptability are limited (e.g. [...] polar communities).”¹⁴ Since the third assessment report, the output produced by the working group on climate impacts includes regional sections, among which one is dedicated to the Polar Regions.¹⁵ The fourth assessment report notes that the impacts of climate change on polar icecaps will have “cascading effects on key regional bio-physical systems and cause global climatic feedbacks, and in the North will affect socio-economic systems.”¹⁶ The importance of scientific information related to Arctic-specific aspects of the causes and consequences of the climate crisis are, thus, clearly acknowledged in the results of IPCC proceedings.

2.2. The Current Climate Change Regime

2.2.1. Framework Convention on Climate Change

Introduction to the UNFCCC

The release of the first assessment report of the IPCC opened the path for the negotiations of a new legal regime. The UN General Assembly established a negotiation process aiming to prepare an effective framework convention on climate change that contains appropriate commitments.¹⁷ As a result, the UNFCCC was formally adopted in 1992 at the Rio Conference on Environment and Development. The ultimate objective of the Convention is to stabilize the amount of greenhouse gases in the atmosphere in order to limit the increase of global temperatures below a dangerous level. Such a threshold is to be determined by considering the natural adaptive capacity of ecosystems, the production of food, and economic

⁷ UNFCCC, art. 9.1.

⁸ The Convention only mentions the IPCC in relation to the interim arrangements. UNFCCC, art. 21.1.

⁹ COP Decision 6/CP.1, Annex 1, para. 1(b), FCCC/CP/1995/7/Add.1.

¹⁰ COP Decision 4/CP.1, para. 1(d)iii, FCCC/CP/1995/7/Add.1.

¹¹ SBSTA, *Report of the First Meeting*, para. 24(c), FCCC/SBSTA/1995/3.

¹² See Kyoto Protocol, art. 3.4, 5.2, and 5.3.

¹³ IPCC First Assessment Report: Synthesis Report (Geneva: IPCC, 1990), 53.

¹⁴ *Ibid.*, at 55.

¹⁵ IPCC *Third Assessment Report* (Geneva: IPCC, 2001), Working Group II, Chapter 16.

¹⁶ IPCC, *First Assessment Report* (Geneva: IPCC, 1990), Working Group II, Chapter 15.

¹⁷ UN Doc. A/RES/45/212, para. 2.

development.¹⁸ The Convention provides a set of principles guiding the parties for their implementation, including the principles of equity, common but differentiated responsibility, as well as a reference to the precautionary approach and the right to sustainable development.¹⁹ It also establishes a set of institutions and bodies, including the Conference of the Parties (COP), the secretariat of the Convention, Subsidiary Body on Scientific and Technological Advice (SBSTA) and on Subsidiary Body on Implementation (SBI).

*587 However, the UNFCCC lacks many of the features and mechanisms that were key to the relative success of the previously established regime in addressing a global atmospheric crisis: the protection of the Ozone Layer.²⁰ In particular, mandatory targets for the reduction of emissions were omitted in order to increase the political acceptability of the agreement.²¹ The only commitment expressed in the text of the Convention consists of “aiming” for developed countries to stabilize their emissions at levels comparable to 1990 levels before the end of the decade. However, this commitment was set without defining the consequences that parties would face if they failed to comply with this objective.²² The Convention did not aim to set a full-fledged regime, but to provide – in a similar manner to the design of the Ozone regime – the framework within which states could develop further agreements and adopt concrete commitments.²³ This is exemplified by the fact that it contains a call for a review of the adequacy of the mitigation commitments provided in the Convention.²⁴

References to the Arctic in the Convention and in the Decisions Adopted under the Convention

In general, the Convention takes a universal approach to the issue of climate change, affirming as one of its core principles the common (but differentiated) responsibility of the parties to protect the climate.²⁵ The differentiation between the obligations of various sets of countries is based on economic rather than geographic criteria, distinguishing between developing, developed countries, and developed countries undergoing the process of transition to a market economy.²⁶ The Convention also notes the particular vulnerability of *low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems [which] are particularly vulnerable to the adverse effects of climate change.*²⁷ Consequently, it calls on parties to the Convention to implement their

¹⁸ UNFCCC, art. 2.

¹⁹ *Ibid.*, art. 3.

²⁰ See the 1985 Convention on the Protection of the Ozone Layer, 26 ILM 1529 and the Montreal Protocol, Protocol on Substances that Deplete the Ozone Layer (Montreal), UKTS 19 (1990).

²¹ Daniel Bodansky, “The United Nations Framework Convention on Climate Change: A Commentary”, *Yale Journal of International Law*, Vol.18 (1993): 555.

²² UNFCCC, art. 4.2(b).

²³ See Patricia Birnie, Alan Boyle and Catherine Redgwell, *International Law and the Environment*, 3rd edition (Oxford: Oxford University Press, 2009).

²⁴ UNFCCC, art. 4.2(d).

²⁵ *Ibid.*, art. 3.1.

²⁶ *Ibid.* art. 4 and Annexes I and II.

²⁷ *Ibid.*, preamble, para. 19.

obligations with particular regards to the needs of the countries *588 falling within one or more of these categories.²⁸ This list only contains references to specific geographic factors on the basis of which the implementation of the Convention might be differentiated. Reference to the particular vulnerability of the Arctic would not have fitted within the content of this enumeration as the region falls exclusively within the jurisdiction of developed countries.

In over 1500 pages of COP decisions, adopted since the Convention's entry into force, the Arctic is only referred to twice in contexts related to its perception as an indicator of climate change and as a region devoted to science. The first reference occurs in the preamble of the decision establishing the Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change. The decision provides that the COP:

*Not[ed] further the increasing body and evolving nature of scientific knowledge, including new information about significant changes in the Arctic and other areas, and of practical experiences responding to adaptation needs.*²⁹

The release of the Arctic Climate Impact Assessment (ACIA) shortly before the adoption of this decision led to the adoption of this direct reference.³⁰ The only other specific mention of the region in a COP decision occurred in a technical annex to the revised “UNFCCC reporting guidelines on global climate change observing systems.”³¹ Up to now, none of the Subsidiary Bodies ever explicitly referred to the Arctic or to the Polar Regions.³²

As the impacts of climate change are already irrevocably affecting local communities in the Arctic, adaptation and community resilience to climate changes have already become an important issue in the region. However, in the climate regime, adaptation is mainly considered to be an issue related to the needs of developing countries and the necessary support that developed countries must commit.³³ The main obligations of developed countries in relation to domestic *589 adaptation policies remain limited to their obligation to provide a short description of adaptation measures in their national reports.³⁴

²⁸ *Ibid.*, art. 4.8.

²⁹ Nairobi Work Programme (Five-year programme of work of the Subsidiary Body for Scientific and Technological Advice on impacts, vulnerability and adaptation to climate change), Decision 2/CP.11, FCCC/CP/2005/5/Add.1.

³⁰ ACIA, Arctic Climate Impact Assessment: Scientific Report (Cambridge: Cambridge University Press, 2005). The ACIA is discussed below in subsection 4.1.

³¹ These guidelines require parties to include in the reporting of their scientific activities *data on steps implemented to increase the number of buoys, vessels and sonars for Arctic and Antarctic climate research*. Revised UNFCCC reporting guidelines on global climate change observing systems, Decision 11/CP.13, FCCC/CP/2007/6/Add.2.

³² The SBI only noted in its work on awareness raising the focus of the 2007 World Meteorological Day on the issue of polar meteorology. Report SBI, 26th session, FCCC/SBI/2007/15, at 15 (under Article 6).

³³ In the Convention, adaptation is mentioned under Article 4.1, paragraphs (b) and (e), but without specific obligations. Article 4.2, defining in more specific terms the obligations of developed countries, does not address adaptation.

³⁴ See UNFCCC, art. 12.1(b); requiring all parties to include in the report “a general description of steps taken or envisaged by the Party to implement the Convention”, thus also covering the obligations provided by Article 4.1(b) and (e).

2.2.2 The Kyoto Protocol and its Mechanisms

Introduction to the Kyoto Protocol

In 1995, the first COP carried the review of the mitigation commitments provided by the Convention and reached the conclusion that such actions were not adequate to meet the ultimate objective of the Convention.³⁵ It, thus, established a negotiation process (the “Berlin Mandate”) to strengthen the commitments of developed countries. This new round of negotiations resulted in the adoption of the Kyoto Protocol in 1997. The main feature of the protocol consists of the adoption of quantified mitigation targets contained in its Annex B. In this annex, each developed country is assigned a specific objective for the reduction of its emissions during the so-called first commitment period (2008-2012) compared to a historical baseline (1990 in most cases). These objectives result in an aggregated target of 5 percent emissions reduction during the first commitment period.³⁶

In order to promote implementation in the most cost-effective manner, the protocol authorizes parties to rely on “flexibility mechanisms” in meeting their commitments.³⁷ These three mechanisms enable parties or private entities to cooperate across borders and trade carbon allowances, thus promoting mitigation actions where their abatement costs are the lowest. The protocol also establishes a strong compliance mechanism in ensuring the implementation of the obligations defined in the annex.³⁸ Due to the complexities of the implementation of the quantified targets, and of the flexibility mechanisms, the operationalization of the Kyoto Protocol required a further definition of many aspects of the newly established regime. The Marrakech Accords, adopted by the COP in 2001, defined the rules and procedures applicable under the Kyoto Protocol in more detail, thus completing the most important stages in the establishment of the climate change regime, as it is currently applicable.³⁹ ***590**

The Kyoto Protocol and the Arctic

Since the main purpose of the Kyoto Protocol is limited to providing concrete obligations to developed countries and to establish various mechanisms and rules for the implementation of those obligations, it is unsurprising that the Kyoto Protocol does not differentiate between various world regions. Indeed, the protocol lacks any reference to a specific geographic context. This absence of consideration of regional circumstances is also reflected in the decisions adopted since its entry into force. The Conference of the Parties, acting as a Meeting of the Parties to the Kyoto Protocol (CMP), has never referred to the specific case of the Arctic in its decisions. Doelle noted that, in addition to the lack of particular references to the Polar Regions, the

³⁵ Decision 1/CP.1, FCCC/CP/1995/7/Add.1.

³⁶ Kyoto Protocol, art. 3.1.

³⁷ The three flexibility mechanisms are the Clean Development Mechanism defined in article 12 of the protocol (involving a developed and a developing country), the Joint Implementation under Article 6 and International Emissions Trading under Article 17 (the later both involving two developed countries).

³⁸ Kyoto Protocol, art. 13. Birnie, Boyle and Redgwell describe this mechanism as “among the most elaborate in any environmental treaty”, *supra* note 23, at 368.

³⁹ Marrakech Accords, Decisions adopted at the COP 7, FCCC/CP/2001/13/Add.1.

obligations defined in the Protocol also fall short of matching the level of necessary mitigation action to prevent irreparable harm in the Arctic as necessary.⁴⁰

2.3. The Negotiations on the Future of the Regime

2.3.1. Parallel Negotiation Processes to define the Future Climate Regime

Since 2005, a new round of negotiations is taking place with the objective of defining the obligations of parties after the end of the first commitment period. Indeed, as mentioned in the previous subsections, only countries included in Annex I have a quantified target for the reduction of their emissions, and these targets only concern the period covering 2008-2012. Hence, the first meeting of the CMP launched a negotiation process aimed at defining what the emission reduction targets of those countries would be in a second commitment period. The Ad-hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) was then established in order to facilitate these discussions.⁴¹ Its mandate is to define new quantified targets, as well as to address issues that have aroused in the implementation of the Protocol. While the mandate of the group is to finish its work “as early as possible and in time to ensure that there is no gap between the first and second commitment periods”,⁴² progress in these negotiations has been particularly slow. However, the CMP-7 achieved a major step forward as the decision regarding the establishment of a second commitment period was finally made and the AWG-KP was requested to conclude its work before the 2012 Climate Conference in Qatar.⁴³ Such a ***591** commitment period would not have applied to all Annex I parties to the Kyoto Protocol as some of them have expressed that they would not adopt new binding targets under the protocol.⁴⁴

The establishment of a second commitment period under the Kyoto Protocol would cover only a minor part of the issues addressed by the UNFCCC. The Protocol is also almost exclusively focused on mitigation action with very few references to adaptation policies.⁴⁵ In order to address this gap, the parties agreed to launch a second negotiations process in 2005. These negotiations resulted in the adoption of the Bali Action Plan by the COP two years later.⁴⁶ The Bali Action Plan sets a roadmap for post-2012 climate regime negotiations based on four main pillars: mitigation action of Annex I and non-Annex I countries, adaptation, technologies development, and the transfer of finances.⁴⁷ The Bali Action Plan also established an Ad-hoc Working Group on Long Term Cooperative Action with the mandate to

⁴⁰ Meinhard Doelle, “The Climate Change Regime and the Arctic Region”, in Timo Koivurova, E. C. H. Kesitalo and Nigel Banks (eds.), *Climate Governance in the Arctic* (Heidelberg: Springer, 2009), 32.

⁴¹ Decision 1/CMP.1, FCCC/KP/CMP/2005/8/Add.1.

⁴² *Ibid.*

⁴³ Decision 1/CMP.7, “Outcome of the work of the AWG-KP at its sixteenth session”, FCCC/KP/CMP/2011/10/Add.1.

⁴⁴ In addition to Canada’s recent withdrawal from the Kyoto Protocol, Russia and Japan have also expressed that they would not accept targets for a second commitment period under the Kyoto Protocol. See below, sec.3.1.2.

⁴⁵ The rather weak reference to this issue is contained in Article 10 of the Kyoto Protocol.

⁴⁶ Decision 1/CP.13, FCCC/CP/2007/6/Add.1

⁴⁷ *Ibid.*, para. 1.

conclude its work in 2009.⁴⁸ Since the stalemate reached at the COP-15 in Copenhagen, each annual climate conference has since then renewed the mandate of the group for an extra year, the COP-17 finally deciding that the group would conclude its work in 2012.⁴⁹

Considering the inability of parties to conclude the discussions on the “agreed outcome” expected in the Bali Action Plan, the decision to launch a new process for the negotiation of a comprehensive agreement was reached at the Durban Climate Conference. This new negotiation process is expected to deliver “a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all parties.”⁵⁰ The Ad-hoc Working Group on the Durban Platform for Enhanced Action (ADP) was established in order to facilitate negotiations related to this new outcome. The timeframe defined for this new process foresees the conclusion of negotiations for the new agreement in 2015, while its entry into force and implementation would begin in 2020.⁵¹ *592

2.3.2. Position of the Arctic in the ongoing Negotiations shaping the Future Climate Change Regime

As expected, decisions establishing the three negotiating processes, presented previously, do not refer directly to the Arctic. The only specific circumstances mentioned in the outcomes of these processes concern the small island developing states, least developed countries, and African countries affected by droughts.⁵² The outcome of the AWG-LCA, adopted at the COP-17, also refers to the special condition of some countries due to economic and geographic factors, as defined in the Convention.⁵³ These geographic references relate to special needs in terms of support for adaptation policies and additional flexibility required for the mitigation action of some developing countries. In this context, there is little opportunity for the recognition of the special situation of the Arctic states in these processes.

The absence of specific references to the region, however, does not preclude whether the UNFCCC regime addresses the vulnerability of the Arctic through the required global actions. This reflection is particularly relevant as the Kyoto Protocol was originally regarded as “a first step towards meaningful global mitigation measures [, being] on its own, clearly inadequate to prevent irreparable harm to the Arctic.”⁵⁴ With regards to future mitigation actions, the parties to the Convention have translated the objective of the Convention to prevent dangerous anthropogenic climate change into the political objective to limit the increase of temperatures to two degrees Celsius.⁵⁵ This limit has been labelled by James Hansen, director of the NASA

⁴⁸ *Ibid.*, para. 2.

⁴⁹ Decision 1/CP.17, “Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action”, para. 1., FCCC/CP/2011/9/Add.1.

⁵⁰ *Ibid.*, para. 2.

⁵¹ *Ibid.*, para. 4.

⁵² See for instance the Bali Action Plan, *supra*, note 46, para. 1.(c)i and Outcome of the work of the AWG-LCA, Decision 2/CP.17, FCCC/CP/2011/9/Add.1, para. 32, 41 and 58.

⁵³ *Ibid.*, para. 89, for a reference to Article 4, see paras 8 and 9.

⁵⁴ Meinhard Doelle, *From Hot Air to Action?: Climate Change, Compliance and the Future of International Environmental Law* (Toronto: Thomson/Carswell, 2005), 32.

⁵⁵ Decision 1/CP.16, “The Cancun Agreements”, FCCC/CP/2010/7/Add.1, para 4. While the adoption of this objective is often associated with the Copenhagen Accord, it was only formally adopted in the

Goddard Institute for Space Studies, as a “recipe for disaster” for the High North. Indeed, paleoclimate records demonstrate that such high-level temperatures have, in the past, been synonymous with an ice-free Arctic. Furthermore, the current pledges made by most parties in the aftermath of the Copenhagen Conference have been criticized as failing to match this two-degree target.⁵⁶ The UN Environmental Programme (UNEP) has highlighted the existing gap between current national pledges and *593 the emissions reductions required to meet the two-degrees target.⁵⁷ Finally, the expected adoption of a second commitment to the Kyoto Protocol will do little to bridge this gap considering the relatively low amount of emissions covered by this amendment.⁵⁸

The current insufficiency of the obligations of parties to reduce their emissions, in comparison to the sensitivity of the Arctic, only reinforces the relevance of further negotiations toward the adoption of more stringent quantified targets. A process has been established in order to periodically consider the adequacy of the long-term global goal (the limit of the increase of temperatures by two degrees) in the light of the ultimate objective of the Convention.⁵⁹ The first review will take place between 2013 and 2015 and will consider whether a more ambitious target is required, perhaps limiting warming to a maximum of 1.5 degrees Celsius.⁶⁰ The outcome of this review should inform the level of ambition of the agreement negotiated for the post-2020 period by the AWG-DPA.⁶¹ This review could potentially provide a good opportunity for the Arctic to fully play its role as a canary in the coalmine. The two-degree increase in global temperatures will not only have a tremendous impact on the local community, but other global regions as well considering the role of the Arctic as a regulator of the global climate. Hence, this factor could be utilized to interpret the dangerous component of the ultimate objective of the regime and, thus, require more stringent emissions reductions targets from parties to the Convention.⁶²

Considering the insufficient mitigation efforts currently committed under the Convention and subsequent agreements, the need for climate adaptation in the Arctic is and will remain particularly acute. The lack of focus of the climate regime on adaptation in developed countries is unlikely to be addressed in the future regime. For instance, provisions related to the Measurement, Reporting and Verification (MRV) of the actions taken by developed countries only address mitigation actions.⁶³ *594

3. Implementation of the UNFCCC in the Arctic

climate regime in the Cancun Agreements as the COP only took note of the Copenhagen Accord. See Copenhagen Accord, Decision 2/CP.15, para 2, for this original reference. FCCC/CP/2009/11/Add.1.

⁵⁶ *Ibid.*, Annex?, Appendix I and Appendix II.

⁵⁷ See UNEP “*Bridging the Emissions Gap*” (2011), available at www.unep.org/pdf/UNEP_bridging_gap.pdf (last visited February 14, 2012).

⁵⁸ Decision 1/CMP.7, *supra* note 43.

⁵⁹ Decision 1/CP.16, *supra* note 55, para. 18 and following.

⁶⁰ *Ibid.*, para 139.

⁶¹ Decision 1/CP.17, *supra* note 49, para. 6.

⁶² See for instance for a discussion of this opportunity: Paul Crowley, “Interpreting ‘dangerous’ in the United Nations Framework Convention on Climate Change and the human rights of Inuit”, *Regional Environmental Change* 11 (2011): 265–274.

⁶³ Decision 2/CP.17, Outcome of the work of the AWG-LCA, Annex III, “UNFCCC biennial update reporting guidelines for Parties not included in Annex I to the Convention”, FCCC/CP/2011/9/Add.1.

With regard to the role of individual states, the Convention places a strong emphasis on the principle of common but differentiated responsibility.⁶⁴ In practice, this principle has led to a very simple – and perhaps too simplistic – categorization of the parties in three categories, which are quasi set in stone by the listing provided by the two annexes to the Convention. In these annexes, the status of a party determines its obligations under the Convention.⁶⁵ In current negotiations, this categorization and the consecutive existing “firewall” between the commitments of developed and developing countries remain one of the most controversial issues.⁶⁶ Considering that all Arctic states are considered to be developed nations, their status under the Convention and the Protocol should thus be rather comparable. In the following section we consider to which measure the legal status of these states differs in the climate change regime, and the impact of these divergences on the scope of the obligations of Arctic states in the climate regime.

3.1. *The Convention and the Protocol setting Differences between the Eight Arctic States*

3.1.1 *European States, implementing the Convention together*

All member states of the European Union (EU) and the European Economic Area (EEA) are party to both the UNFCCC and the Kyoto Protocol, and almost all are also included in the Annex I of the Convention.⁶⁷ The EU itself is also party to both the Convention and the Kyoto Protocol, as the two agreements are also open for ratification, acceptance, and approval – not only by individual states but also by regional economic integration organization.⁶⁸ The quantified targets set in the Kyoto Protocol’s Annex B require most EU countries to reduce their emissions by eight percent.⁶⁹ *595

One particular aspect of the implementation of the Convention by the EU member states consists in their internal decision to jointly implement this target within the so-called “EU bubble”.⁷⁰ The EU Burden Sharing Agreement, one of the key legislations composing the EU climate policy, defines a specific target for each of the member states, taking into consideration the national circumstances prevailing in each country.⁷¹ In relation to Arctic EU member states, the national targets diverge broadly. By 2012, Denmark is required to reduce its emissions by 21 percent; Finland is required to stabilize its emissions at the levels akin to those of 1990, while Sweden is required to limit their increase to four percent. Furthermore, according to the Kyoto

⁶⁴ UNFCCC, art. 3.

⁶⁵ UNFCCC art. 4.1 and 4.2.

⁶⁶ Daniel Bodansky, *The Art and Craft of International Environmental Law*, (Cambridge, Mass.: Harvard University Press, 2010), 232.

⁶⁷ Except for Cyprus and Malta, which were at the time not included in Annex I and hence has not been allocated any quantified emission reduction target under the Kyoto Protocol. The inclusion of Malta to the Annex I took place through an amendment to the Annex adopted in 2009, Decision 3/CP.15, FCCC/CP/2009/11/Add.1.

⁶⁸ UNFCCC, art. 22.2.

⁶⁹ With the notable exception of Hungary and Poland for which a reduction of emissions by 6 percents is expected.

⁷⁰ Such an arrangement is explicitly made possible by the provision of the Kyoto Protocol, Kyoto Protocol Article 4. The member states of the EU have been the only parties to the Kyoto Protocol making use of this option.

⁷¹ EC Council Decision 2002/358/EC of 25 April 2002.

Protocol's Annex B, Norway and Iceland are allowed to increase their emissions respectively by one and ten percent.

Again, EU countries also distinguish themselves from other parties to the Convention as they have established an internal Emission Trading Scheme (hereinafter EU-ETS).⁷² The EU-ETS is currently the largest of such trading schemes. The establishment of this scheme is made possible by Article 17 of the Kyoto Protocol, which allows the use of emissions trading in the fulfilment of targets set under the Protocol.⁷³ Despite being designed to comply with the modalities established under the Protocol, the EU-ETS is however independent from the climate regime in the sense that it is based on the EU's own internal emissions reductions targets and would, thus, still operate even in the case of an absence of legally binding target under the Protocol. The geographic scope of the EU-ETS increased in 2007 when an agreement was reached with three non-EU countries (Norway, Iceland and Liechtenstein) participating in the European Economic Agreement.⁷⁴ The scheme, thus, now involves five out of eight Arctic states. *596

3.1.2. *Russia, Party to both Agreements but with Different Obligations*

Differences between Annex I and Annex II Parties

Until 2012, the primary difference between the status of European states and Russia in the climate regime was based on the categorization of Russia as one of the “countries that are undergoing the process of transition to a market economy” listed in Annex I of the Convention, but not its Annex II. While all Annex I parties are expected to take the lead in reducing emissions of greenhouse gases, only those also listed in Annex II have the obligation to support the implementation of the Convention in third countries. These obligations include financial and technological transfers to assist other states (thus including economies in transitions) to comply with the implementation of the Convention.⁷⁵ Annex II countries are also expected to cover the costs of reporting to the COP by developing countries, as well as to assist most vulnerable developing countries to bear the costs of adaptation. In this sense, Russia is expected to take domestic measures to implement its obligations under the Convention, while European countries are expected to both take these domestic actions as well as provide international support.

The Decision by Russia not to adopt a Second Commitment Period

In the final hours of the COP-16, Russia announced that it “will not participate in the second commitment period of the Kyoto Protocol”, a position rapidly rallied by

⁷² EC Council Directive 2003/87 establishing a scheme for greenhouse gas emissions allowance trading within the Community. For a thorough analysis of the EU-ETS, see Markus Pohlmann, “The European Union Emissions trading Scheme”, in David Freestone and Charlotte Streck, *Legal Aspects of carbon trading: Kyoto, Copenhagen, and beyond* (Oxford: Oxford University Press, 2010), 337-366.

⁷³ The main requirements set by the protocol for the use of such scheme are that such use is supplementary of domestic actions and that it complies with the modalities, rules and guidelines adopted by the COP, currently contained in Decision 11/CP.1, FCCC/CP/1995/7/Add.1.

⁷⁴ Decision of the EEA Joint Committee 146/2007 of 26 October 2007.

⁷⁵ UNFCCC art. 4.3. and 4.5. Yamin and Depledge note that this provision has been progressively applied also to transfers destined to EIT countries, Yamin F. and Depledge J., *The International Climate Change Regime: a guide to rules, institutions and procedures*, (Cambridge: Cambridge University Press, 2004), 265.

Japan.⁷⁶ However, Russia did not go as far as Canada in unilaterally withdrawing from the Kyoto Protocol.⁷⁷ Consequently, the only outcome of the Russian refusal to accept a second commitment period will consist in the absence of a new mitigation target post-2012. The review of the compliance of Russia with its target for the 2008-2012 commitment period will take place independently of its position in the future climate regime, according to the regular procedure. If Russia were to be found in non-compliance, this finding would only have political *596 consequences. Indeed, the compliance mechanism established under the Kyoto Protocol is based on a penalty applied to following the commitment period and, thus, concerns only those countries that have accepted such an additional commitment.⁷⁸ In any case, considering Russia's current emissions trajectory, it is unlikely that such a finding would be made. Also, Russia is and will remain bound to other obligations under the Kyoto Protocol that do not relate to quantified emissions reductions. The obligation to submit yearly inventories of its emissions remains identical for Russia as for any other Annex I party to the protocol, independent of the decision of the country not to accept a second commitment period.⁷⁹ Finally, in relation to flexible mechanisms, Russia will no longer be allowed to take part in any of the mechanisms, the Joint Implementation – a mechanism that Russia utilized during the first commitment period – and Emissions Trading Schemes rely on an exchange of allowances, which are determined on the basis of the national target defined for a given commitment period.⁸⁰

3.2. *The Special Regimes of Iceland and Greenland*

While the obligations of European states and Russia differ in the climate regime due to their statuses in the annexes of the Convention, the situation of Iceland and Greenland also presents some specificity on the basis of particular national circumstances.

3.2.1. *The “Icelandic Exception”*

While a party to both the UNFCCC and the Kyoto Protocol, Iceland still holds a particular position in the climate regime as it has successfully negotiated a special exception that only applies to the country in practice. Since this exception has been the subject of little attention in academic analysis of the climate regime, we will briefly describe the rationale behind this exception and present its content below, as well as highlight the status of this specific rule in the future climate regime.

⁷⁶ Russian communicated its decision not to accept a new commitment period under the Kyoto Protocol to the UNFCCC secretary on 9th December 2010, followed by Japan one day later. While the Kyoto Protocol provides that amendment to its Annexes might be adopted by a three-fourth majority if all efforts to achieve consensus have failed, amendments to the national obligations of parties contained in Annex B require prior written consent of the party. Kyoto Protocol, art. 20 and 21.

⁷⁷ See below subsection 3.3.2 for a discussion of the consequences of the Canadian unilateral withdrawal from the Kyoto Protocol. In October 2012, media coverage indicated that the Russian Prime Minister had ordered a review of the involvement of the country in the Kyoto Protocol. The status of Russia under the Protocol might thus be subject to change after 2012.

⁷⁸ In the case of a parties being found at the end of the review process in non-compliance with the quantified target established in the Annex B of the Kyoto Protocol, its target for the second commitment period would be made stringer, with the application of a penalty rate. Decision 24/CP.7 FCCC/CP/2001/13/Add.3, Section XV, para. 5.

⁷⁹ These obligations are provided in Article 7, which does not refer to the commitment period.

⁸⁰ The third flexible mechanism, the Clean Development Mechanism, only addresses projects developed in non-Annex 1 country. See Kyoto Protocol, art. 12.2.

Content of the Exception

Under a special regime established by the decision 14/CP.7, a government can decide to opt for the separate accounting of emissions of major industrial projects if it fulfils a certain number of restrictive criteria. In practice these criteria *598 are so restrictive that this rule is described as the “Icelandic exception” as it applies only to this country. The participation of a state to this special regime has two consequences. The first one is to exclude projects whose emissions are accounted for under this rule from participation in the flexibility mechanisms (Joint Implementation and Emissions Trading Scheme).⁸¹ Secondly, the country receives a unique two-fold target under the Kyoto Protocol as a consequence of the exception. During the first commitment period Iceland is, thus, allowed to emit a maximum of 1.6 tonnes of CO₂e from single projects annually, in addition to its emissions reduction target. According to Annex B of the Kyoto Protocol, the rest of its annual emissions should not exceed 110% of their levels in 1990.⁸²

Rationale

The main reason behind this Icelandic exception lies in the development of heavy industry in the country since 1990. Despite the use of renewable energies, and due to their importance in comparison to the relatively limited population of the country, the emissions resulting from the industrial processes involved in these projects have a high impact on overall national emissions. In 2007, emissions from industrial processes represented a third of the overall Icelandic emissions of greenhouse gases, the highest proportion in the world.⁸³ Reducing emissions below business as usual scenarios is more challenging in Iceland due to the fact that about 80% of the energy consumed is already produced from renewable sources – geothermal and hydroelectric. In addition, the large share of aluminium smelters in the Icelandic emissions of greenhouse gases renders any mitigation policy challenging as the mitigation potential of this sector is expected to remain insignificant up to 2020 due to the lack of alternative technologies.⁸⁴ Jóhannesson also suggested the strong domestic perception of the island’s uniqueness as another motivation for the negotiations of this unique exception.⁸⁵

Negotiations of the Exception

Since the negotiations began, Iceland has been cautious to prevent that its commitment under the Kyoto Protocol impedes opportunities for the development *599 of the energy intensive industries in the country.⁸⁶ In 1997, the country obtained already a decision on the opening at a later stage of discussions related to the impact of single projects for parties with low reference levels.⁸⁷ Since then, Iceland promoted

⁸¹ Decision 14/CP.7, FCCC/CP/2001/13/Add.1, para. 3.

⁸² Considered in relation to the Icelandic target, the cap of 1.6 millions tons of CO₂e represents an increase of the target of about 50%.

⁸³ Icelandic 5th National Communication (2010), available on unfccc.int, at 32.

⁸⁴ Davíðsdóttir B. and Agnarsson S., *The cost effectiveness of mitigating greenhouse gas emissions in Iceland*, (Reykjavik: Haskola Islands, 2010), 3 and 9.

⁸⁵ Ingólfur Ásgeir Jóhannesson, “Icelandic Nationalism and the Kyoto Protocol: an Analysis of the Discourse on Global Environmental Change in Iceland”, *Environmental Politics* Vol. 14 (4) (2005): 499.

⁸⁶ In relation to the negotiations process relative to the “Impact of single projects on emissions in the commitment period”, see <http://unfccc.int/cop7/issues/iceland.html> (accessed February 14, 2012).

⁸⁷ Decision 1/CP.3, FCCC/CP/1997/7/Add, para 5.d.

the proposal of an exception to the regime for the “Impact of Single Projects on Emissions in the Commitment Period”. In 1998, the Icelandic delegation introduced a proposal providing as follow:

“[...] process emissions from a single project, which comes into operation after 1990 and adds in the first commitment period more than five percent to the total greenhouse gases of a Party listed in Annex B to the Protocol shall be reported separately and not included in the national totals to the extent that they would cause a Party to exceed its assigned amount”.⁸⁸

After lengthy negotiations over several consecutive sessions of the SBSTA, this proposal was finally adopted as one of the elements of the Marrakech Accords in 2001. Decision 14/CP.7 defines the terms of application of the exception. Four conditions determine when emissions of industrial projects might be accounted for separately from the rest of national emissions. The first three conditions are drawn directly from the original Icelandic proposal. Accordingly, only parties whose global emissions were less than 0.05% of total Annex I emissions in 1990 are eligible under this rule. The industrial project concerned must also make use of renewable energy in order to reduce the emissions per unit of production. Finally, the best available practice must be used on site. First and second conditions demonstrate that this rule was tailor-made for Iceland. In addition to the rules proposed by Iceland, the COP.7 decision also defines a cap of a maximum of 1.6 millions of CO₂ tons that can be exempted annually on average.⁸⁹ States interested in benefiting from this measure were required to notify the UNFCCC secretariat before COP-8, with only Iceland and Monaco expressing their interest in due time. The reach of an agreement on the issue of the impact of single projects prompted the rapid accession by Iceland to the Kyoto Protocol.⁹⁰

Some environmental NGOs criticized the “single project exception” while recognising that the implementation of the Kyoto Protocol should not prevent ***600** small countries from developing energy intensive industries. However, NGOs have emphasized that the Kyoto Protocol, in itself, would not prevent Iceland from establishing new industries constituting important sources of greenhouse gases. Indeed, Iceland could compensate for the additional emissions both domestically and through the use of flexibility mechanisms. Domestically, Land Use, Land Use Change and Forestry rules of the Protocol would allow the country to offset a part of the emissions resulting from new industrial projects. More feasibly, the country could also make use of the flexible mechanisms. This later option would allow Iceland to offset the emissions above its target by purchasing Certified Emissions Reductions (CERs) from Clean Development Mechanisms projects in non-Annex I countries. It could also acquire Emissions Reduction Units (ERUs) or Assigned Amount Units (AAUs) from other developed states relying either on joint implementation or emissions trading.

⁸⁸ Submission by Iceland on Matters related to the Kyoto Protocol, FCCC/CP/1998/MISC.11/Add.1.

⁸⁹ Decision 14/CP.7, para. 3. See for a legal discussion of the repartition of the use of this exception throughout the commitment period, “The impact of the operations of the Aluminium Industry on Iceland’s international obligations” by Günther, Heidel, Wollenteit, Hack (2006), commissioned by the Iceland Nature Conservation Association.

⁹⁰ Aðalheiður Jóhannsdóttir, “Country Report: Iceland”, in Geir Ulfstein and Jacob Werksman, *Yearbook of International Environmental Law*, Vol. 13 (2002): 491.

Current Icelandic Position

The wording of the decision 14/CP.7 stipulates that the exception is applicable only for the first commitment period. Hence the ongoing negotiations over the adoption of second commitment for some of the Annex I parties raise the question of the form of the Icelandic target post 2012. The position of Iceland in the climate negotiations might evolve as a result of its current application for membership to the European Union.⁹¹ In any case, while Iceland still defines its position independently in climate negotiations, its stand is already strongly framed by its participation in the European Emissions Trading Scheme. This context is reflected in Iceland's position with regard to a national target in the future legal framework for mitigation action. Among the four various options proposed by the country for its own future target, two main approaches are offered. The country favours the setting of a new target for Iceland in joint effort with other members of the European Union, thus allowing for flexibility within a burden sharing agreement. However, if an independent national target is to be set for the country, the Icelandic governments indicated that it would then expect the continuation of the current rules related to the impact of single projects and submitted in 2009 a draft COP decision for this purpose.⁹²

While a minor and generally ignored aspect of the climate change regime, the single project rule constitutes an interesting element for two main reasons. Firstly, the position of Iceland in the climate regime is unique as the country is the only developed state listed in the Annex I of the Convention that has managed **601* to negotiate special treatment under the Convention. The decision 14/CP.7 demonstrates the possibility for the international climate regime to accommodate national specificities that have a minor impact from a global perspective, but have important implications at the national level. Secondly, this rule integrates a new environmental policy approach within the climate regime. Command-and-control regulations and market-based approaches constitute two of the main policy instruments available for states when addressing environmental problems.⁹³ While the regime established by the Kyoto Protocol relies heavily on the latter approach, the Icelandic exception, as it relies on the requirement for Best Available Technology/Best Environmental Practices, integrates the Common-and-Control approach to the implementation of the regime to a limited extend.

3.2.2. The Status of Greenland

The position of Greenland, in relation to the European Union, is relevant to the international climate regime as the EU now has a wide range of competences in climate policy areas. Greenland is indeed the only territory that has withdrawn from the EU so far. In 1973, Greenland, as a Danish territory, became part of the European Communities.⁹⁴ As the Home Rule was introduced in Greenland in 1979, the island

⁹¹ See for instance the joint submission on behalf of the member states of the European Union, of Croatia and of Iceland on the aftermath of the Durban Climate Conference.

⁹² See Icelandic submission on "Further elaboration of the options, elements and issues contained in annex IV to document FCCC/KP/AWG/2008/3 [sic]", FCCC/KP/AWG/2009/MISC.5at 40.

⁹³ Daniel Bodansky (2010), *supra* note 66, at 71 and following.

⁹⁴ Treaty concerning the accession of the Kingdom of Denmark, Ireland and the United Kingdom of Great Britain and Northern Ireland to the European Economic Community and the European Atomic Energy Community, January 22, 1972.

obtained the right to determine whether it would retain this status or withdraw from the EEC. The Greenlandic government organized a referendum on this question and, as a result, withdrew from the regional organization.⁹⁵ Consequently, climate regulations and commitments adopted by the EU are not binding on Greenland.

In terms of Greenland's external relations, the currently applied default policy consists of Denmark negotiating international agreements on behalf of the whole realm. However, both the Faroe Islands and Greenland retain the right to ask for an exception and for an international treaty to be ratified with a geographic exclusion for one/both of the territories. This option was, however, not activated in the case of the ratification of the Convention, both Greenland and Faroe Islands were thus party to the Convention. In the case of the ratification of the Kyoto Protocol, the Faroe Islands explicitly requested Denmark to adopt a geographical exception for the archipelago. Thus, only Denmark and Greenland were included in the ratification of the treaty in 2002. Consequently, Denmark, together with France, is the only country for which the geographic scope of accounting of emissions under the Convention and the Kyoto Protocol is different.⁹⁶

Accordingly, Denmark reports its emissions in different formats depending on the institution that it addresses: while the emissions of Denmark, Greenland and the Faroe Islands are aggregated when reporting to the UNFCCC COP, only those of Greenland and Denmark are combined in the report to the Kyoto Protocol CMP. The scope of national emissions accounting, under the frame of EU regulations, only covers the emissions of Denmark itself.

The particular case of Greenland (and of the Faroe Islands) was once again raised in the context of the commitments submitted by the parties in the aftermath of the Copenhagen Climate Conference. According to the Copenhagen Accord, developed countries were to notify the UNFCCC secretariat of the quantified emissions reduction target to which they were willing to commit, and which were to be included in an annex to the Copenhagen Accords.⁹⁷ Until new legally binding targets are adopted under the Kyoto Protocol (which is expected to happen at the 2012 COP-18 climate conference), these Copenhagen pledges constitute the only mitigation commitment for the period following 2012. The European Union submitted a joint target of a 20% reduction for all of its member states. Considering that Greenland and the Faroe Islands are not member of the EU, the European pledge submitted under the Copenhagen Accords does not apply to these two self-governing territories. The Danish government sent a letter to the UNFCCC secretary in order to clarify this fact and to reaffirm the commitment of the two territories to take mitigation action, despite the fact that the two territories are not included in the commitments submitted by Denmark under the Copenhagen Accords.⁹⁸

⁹⁵ See: Treaty amending, with regard to Greenland, the Treaties establishing the European Communities, Official Journal of the European Communities, No L 29/1m 1. February 1985.

⁹⁶ The case of France is rather similar, as overseas territories and New Caledonia are included in the French accounting under the Framework Convention but are covered by a geographical exception under the Protocol.

⁹⁷ Decision 2/CP.15, *supra* note 55, para. 4.

⁹⁸ Letter available at http://unfccc.int/files/meetings/cop_15/copenhagen_accord/application/pdf/denmarkcphaccord_app1.pdf (accessed June 07, 2012).

In terms of domestic policy, Greenland faces a similar challenge as Iceland in the reduction of its greenhouse emissions. While most of its electricity is generated from renewable energy (hydropower), the country is expecting the development of energy-intensive projects that would also consume renewable energy, but whose industrial processes are likely to make the national emissions trajectory soar. The domestic climate policy of Greenland, thus, relies on a similar approach as the Icelandic commitment under the Kyoto protocol: while a *603 target is set for economy-wide emissions reduction, the emissions from specific projects are excluded from this pledge.⁹⁹

3.3. *Arctic States not Party to the Kyoto Protocol*

Greenland is, however, not the only territory in the Arctic for which the established obligations in the climate regime for developed countries do not apply fully due to the ratification status of the Kyoto Protocol. This third subsection finally considers the legal position in the climate regime of the North American states due to their lack of ratification of or withdrawal from the Kyoto Protocol.

3.3.1. *The United States – Outsider to the Protocol*

The United States' unique Position in the Climate Regime

The US was the first major economy to ratify the Convention only a few months after its adoption in Rio. However, the country's position in the climate change regime shifted prior to the adoption of the Kyoto Protocol. Prior to the climate conference in Kyoto, the US senate passed the Byrd-Hagel resolution, which defined the conditions under which the Chamber would refuse to ratify any new international agreement on emissions reductions. According to this resolution, the Senate would not ratify any agreement that would:

*(A) Mandate(s) new commitments to limit or reduce greenhouse gas emissions for the Annex I Parties, unless the protocol or other agreement also mandates new specific scheduled commitments to limit or reduce greenhouse gas emissions for Developing Country Parties within the same compliance period, or (B) would result in serious harm to the economy of the United States.*¹⁰⁰

The first condition set by the congress was, already at the time, irreconcilable with the Berlin Mandate, which fixed the modalities of the negotiations toward the new protocol. Indeed, the Berlin Mandate explicitly defines the aim of these negotiations as setting specific targets for countries included in Annex I, while *not introducing new commitment for parties not included in Annex I*.¹⁰¹ The US delegation nevertheless accepted in Kyoto a commitment for the reductions of domestic emissions, with a national target of seven percents of emissions *604 reduction below 1990 levels. In exchange, it obtained the withdrawal of the European Union's objection to the establishment of market-based mechanisms, enabling countries to

⁹⁹ The impact of single industrial projects on the overall national emissions trend is even more acute in Greenland than in Iceland. Indeed, the main energy-intensive industrial project current under development is an aluminium smelter, the emissions of which would amount once in operation to 85% of the total of Greenland current greenhouse emissions. J H Schmidt, M Thrane, *Life cycle assessment of aluminium production in new Alcoa smelter in Greenland*, (Government of Greenland, 2009).

¹⁰⁰ S. Res. 98 [Report No. 105–54], 105th Congress (1997).

¹⁰¹ Decision 1/CP.1, *supra* note 35, para. 2(a)-(b).

fulfil their commitments partly by acquiring credits corresponding to emissions reductions occurring in third countries.

However, the Senate immediately confirmed that the content of the Kyoto Protocol did not satisfy its conditions as set in the Byrd Hagel resolution and that it would not ratify the Protocol.¹⁰² Following the election of G. W. Bush to the White House, the executive branch of the government communicated its intent to not submit the Protocol for ratification by the senate. While the Bush administration did not take the step to formally withdraw the US signature to the protocol,¹⁰³ its explicit communication in relation to its position not to proceed with the ratification of the agreement seems to be sufficient to reverse any effect of the US signature of the Protocol. Indeed, according to the Vienna Convention on the Law of Treaty, the only legal consequence flowing from the signature of an agreement by a state consists in the obligation “*to refrain from acts which would defeat the object and purpose of a treaty*”.¹⁰⁴ This obligation is, however, suspended once “*it shall have made its intention clear not to become a party to the treaty*”,¹⁰⁵ a condition that the clear position of the Bush administration is most likely to have met.¹⁰⁶

Obligations of the US under the Convention

Since the US is not bound by the specific mitigation targets set in the Protocol, its only obligation to the climate regime stems from the provisions of the Convention. In relation to mitigation, the text of the Convention notably lacks any concrete obligation, its provision only mentions the long forgotten inspirational objective of stabilizing emissions in 2000 at 1990-levels.¹⁰⁷ It is also required to periodically communicate on the policies and measures that it adopts.¹⁰⁸ Despite *605 the fact that the COP assessed that those obligations were not adequate to meet the objective of the Convention and, therefore, needs to be complemented with new commitments,¹⁰⁹ the decision of the US to not ratify the Protocol implies that the country presently has no legal obligations with regards to mitigation to the climate regime. In January 2010, the country pledged under the Copenhagen Accord to reduce its emissions by 17% in 2020 on the basis of its 2005 emissions.¹¹⁰ This commitment is only of political nature

¹⁰² S. Res 86 [Report no 105-170], 105th congress (1998).

¹⁰³ The US administration justified its absence of formal withdrawal by the fact that it considered the signature as not having any binding consequences for the United States. See “White House Briefing Comments on Kyoto Protocol”, quoted in G. Kahn, “The Fate of the Kyoto Protocol Under the Bush Administration”, *Berkeley Journal of International Law* Vol. 21 (3) (2003): 555.

¹⁰⁴ Vienna Convention on the Law of Treaties, May 23, 1969, 1155 U.N.T.S. 331; 8 I.L.M. 679 (1969), art 18.

¹⁰⁵ *Ibid*, art. 18(a)

¹⁰⁶ See Laurence Boisson de Chazournes, Anne-Marie La Rosa & Makane Moïse Mbenguein, “Article 18 (1969)”, in Olivier Corten, Pierre Klein (eds), “*The Vienna Conventions on the Law of Treaties: A Commentary*” Oxford University Press (2011), 393 . for a discussion of the limits rationae temporis of the signature of an international treaty.

¹⁰⁷ UNFCCC, art. 4.2.a.

¹⁰⁸ *Ibid*, art. 4.2.b.

¹⁰⁹ Preamble of the Berlin Mandate, Decision 1/CP.1, *supra* note 35.

¹¹⁰ See letter by the US Department of State, Office of the Special Envoy for Climate Change, January 28, 2010 to the Executive Secretary of the UNFCCC, available at http://unfccc.int/files/meetings/cop_15/copenhagen_accord/application/pdf/unitedstatesphaccord_app_1.pdf (accessed June 27, 2012)..

and does not have any legal standing within the climate change regime as the Copenhagen Accords were only noted by the COP during the COP15.¹¹¹

The issue of the United States' adoption of legal commitment was reintroduced to the negotiations with the adoption of the Bali Action Plan at the COP-13. The Bali Action Plan set a mandate for the negotiations toward a new legal outcome, addressing the following among other elements:

*Measurable, reportable and verifiable nationally appropriate mitigation commitments or actions [...] by all developed country Parties, while ensuring the comparability of efforts among them, taking into account differences in their national circumstances.*¹¹²

The United States has also agreed to other general commitments related to financial transfer and mitigation policies that are contained in recent COP decisions. These commitments are not legally binding under international law and lack compliance mechanisms.¹¹³

In relation to institutional arrangements in the climate regime, the fact that the US has not ratified the Kyoto Protocol means that it does not participate to the work of any body established under the Protocol. Hence, the US can only attend to the CMP under the status of observer,¹¹⁴ as well as to the sessions of the AWG-KP and cannot nominate representatives to the subsidiary bodies established under the Protocol. *606

3.3.2. Canada – Realigning Negotiating Position with the US

Canada's Situation in the Climate Regime

Based on a business-as-usual trajectory for its emissions, which are relatively comparable to the US, and to the close economic integration between the two countries, Canada decided to tighten its position closer to the United States in the climate regime and in the negotiations of the Kyoto Protocol. Canada negotiated its own target under the Protocol to one percent lower than the targets that the US would sign itself up to. This resulted in a reduction target of 6% of its emissions during the first commitment period.¹¹⁵ As the US sent clear signals announcing their refusal to ratify the Protocol, the Canadian government announced its decision to move forward with its own ratification process during the World Summit on Sustainable Development and the ratification instruments were deposited before the end of 2002.¹¹⁶

¹¹¹ UNFCCC secretariat, "Notification to the parties" of 25 January 2010. Available at http://unfccc.int/files/parties_and_observers/notifications/application/pdf/100125_noti_clarification.pdf (accessed June 27, 2012).

¹¹² Decision 1/CP.13, *supra* note 46, para 1(b)i.

¹¹³ Indeed, the Conference of the Parties only has authority in relation to the functions that the parties have explicitly delegated to it in the provisions of the Framework Convention. These provisions do not include any competence to create binding obligations on the parties to the convention, limiting the authority of the COP to reviewing information and making suggestions and recommendations. See UNFCCC Art. 7 and 4.2.

¹¹⁴ Kyoto Protocol, art. 13.2.

¹¹⁵ Harrison K., "The Road not Taken: Climate Change Policy in Canada and the United States", *Global Environmental Politics*, Vol. 7 (4) (2007): 102.

¹¹⁶ *Ibid.*, at 108, for a description of the role of domestic policies in this ratification process.

Faced with a steep increase in emissions from its energy sector, the Canadian government adopted domestic mitigation measures aiming to achieve only part of its Kyoto commitments, expecting to fulfil a significant proportion of this target through the use of the flexible mechanisms. In 2007, Canadian emissions exceeded its Kyoto target by more than 32%.¹¹⁷ After 2006, Prime Minister Stephen Harper, who had consistently and vocally opposed the ratification of the Protocol, announced that he did not intend to take any action in order to meet its commitment, realigning the Canadian negotiation position with that of the United States.

Canada's Decision to Unilaterally Withdraw from the Kyoto Protocol

Up to December 2011, Canada was legally bound by its commitment under the Kyoto Protocol, but had unambiguously emphasized that it did not intend to meet the resulting obligations. In the immediate aftermath of the Durban Climate Conference, the national government finally announced its decision to withdraw from the Kyoto Protocol.¹¹⁸ The protocol includes, as many other international environmental agreements, a provision foreseeing the right of any state to do so. *607

*At any time after three years from the date on which this Protocol has entered into force for a Party, that Party may withdraw from this Protocol by giving written notification to the Depositary.*¹¹⁹

If a party notifies its decision to withdraw from the Protocol, a “cooling period” of one year is then applied before the withdrawal is effective.¹²⁰ Accordingly, the possibility for a country to withdraw from the Kyoto Protocol is foreseen in the provisions of the Protocol and other actors (COP, third parties, etc) have no possibility to oppose this decision. However, Yamin noted that this relatively simple provision applying to the withdrawal of a party is potentially problematic as it is too vague to address some of the issues that might arise in this case.¹²¹

Consequences of the Canadian Withdrawal from the Kyoto Protocol

In order to understand the legal implications of this withdrawal, the timing of the compliance procedures, established under the Kyoto Protocol, must be understood. According to the protocol, the review of the compliance of individual states with their national target only begins at the end of the commitment period.¹²² Once the yearly national reports have been reviewed, the party to the Protocol is given an “additional period for fulfilling commitments”.¹²³ This period, lasting a hundred days, gives each party opportunity to make use of the flexible mechanisms in order to meet its target. It is only after the expiration of this period, in early 2015, that the compliance committee can make a finding of non-compliance, the consequence of which is to deduce the excess emissions from the national target determined for the second commitment period with a penalty rate of 30%.¹²⁴ Consequently, if Canada had

¹¹⁷ Government of Canada, Fifth National Communication on Climate Change to the UNFCCC (2010), 19.

¹¹⁸ The government officially notified the depositary of the treaty of its withdrawal on the 15th December 2011.

¹¹⁹ UNFCCC, ar.27.1. A hypothetical withdrawal from the Convention itself would also lead to the automatic withdrawal from the Protocol. See art. 27.2 and 27.3.

¹²⁰ This provision of the Protocol is identical to the one contained in Article 25 of the convention.

¹²¹ Yamin F. and Depledge J. (2004), *supra* note 75, 552.

¹²² Decision 13/CMP.1, FCCC/KP/CMP/2005/8/Add.2, Annex para. 14.

¹²³ Decision 27/CMP.1, FCCC/KP/CMP/2005/8/Add.3, Annex – section XIII.

¹²⁴ *Ibid.*, Annex – section XV.

decided not to withdraw from the Protocol, but to refuse to accept a new target, its finding of non-compliance by the compliance committee would also have lacked concrete consequences.

While the decision to withdraw has a political cost for the country, its main benefit for Canada consists in the suspension of the review of its national reports. Considering the yearlong “cooling period”, the withdrawal of Canada will indeed become effective on 15 December 2012, shortly before the end of the first commitment period. The Protocol emphasises that commitments under its ***608** Annex B are not annual but rather *aggregate* over the full commitment period.¹²⁵ Thus, by withdrawing before 31 December 2012, a state can escape its commitment for the full commitment period.

Among many other criticisms from civil society and foreign governments, the Canadian Inuit Circumpolar Council reacted to the decision expressing its deep concerns about the decision and seeking confirmation by the national government of its commitment to address impacts of climate change in the Arctic.¹²⁶

4. The Role of the Arctic Council in Relation to the UNFCCC

The previous sections highlighted a quasi absence of references to the specific conditions prevailing in the Arctic among the outcomes of the global climate regime, as well as a lack of coherence in the status of the eight Arctic states in the climate regime. One can, thus, logically question whether the eight Arctic states have attempted to establish circumpolar cooperation on climate change to any extent. The third section of this chapter aims at responding to this question in considering the role played in climate governance by the Arctic Council as a main forum for regional cooperation.¹²⁷ The first subsection analyses to what extent the Arctic Council ministerial declarations explicitly refer to the UNFCCC, while the second subsection addresses research projects by the Council to climate change.

4.1. Declarations Adopted at Conferences Convened in the Context of Arctic Cooperation

The lack of a coordinated presence at the climate negotiations or of a uniform implementation of the Convention across the circumpolar world has not prevented the Arctic Council from referring to the issue, and sometimes more specifically to the UN climate change regime, in its declarations.¹²⁸ While such statements seldom result in concrete outcomes, they might be relevant to climate change negotiations in influencing the rhetoric used. ***609**

¹²⁵ Kyoto Protocol, art. 3.1 and 3.7.

¹²⁶ ICC Canada press release, December 15, 2011, available at <http://inuitcircumpolar.com/index.php?ID=445&Lang=En> (accessed June 7, 2012).

¹²⁷ See also Md. Waliul Hasanat, “Towards Model Arctic- Wide Environmental Cooperation Combating Climate Change”, *Yearbook of International Environmental Law* 20(1) (2009): 139-143 for an overview of the consideration of climate change by the Arctic Council and the Arctic Environmental Protection Strategy.

¹²⁸ For another account of the references to climate change and the UNFCCC in the declaration of the Arctic Council, see Timo Koivurova and Waliul Hasanat, “Climate Policy of the Arctic Council”, in Timo Koivurova, E. C. H. Keskitalo and Nigel Banks (eds.), *Climate Governance in the Arctic* (Heidelberg: Springer, 2009), 64.

The Arctic Environmental Protection Strategy (AEPS) was the first major declaration adopted in the context of regional cooperation among the eight Arctic states.¹²⁹ The AEPS, thus, set the stage for further circumpolar cooperation, which would eventually lead to the establishment of the Arctic Council. The AEPS was adopted in 1991 before completion of the negotiations on the Framework Convention and does not refer to this process. Among the six priority areas identified by the declaration, no mention is made of climate change.¹³⁰ The AEPS did highlight the potential impact of climate change in the region, but considers that other international processes already addressed the issue, referring implicitly to negotiations on the UNFCCC.¹³¹ The Nuuk Declaration, adopted at the following Arctic ministerial conference, also does not mention the impact of climate change in the Arctic.¹³² It however expresses “support [for] the early ratification of the United Nations Convention [...] Climate Change”.¹³³ Awareness of climate impacts in the Arctic then increased with the redaction and release of the Arctic Climate Impact Assessment (ACIA). In this context, Arctic ministers refer to climate change without mentioning explicitly the role of the UNFCCC in following declarations. The Barrow Declaration requested the ACIA to contribute to the work of the IPCC.¹³⁴ The Inari Declaration highlighted the growing recognition of the importance of climate impacts in the Arctic, as it includes many references to the issue, as well as a full section dedicated to it.¹³⁵ However, the ministers referred to the 2002 World Summit on Sustainable Development and World Conference on Climate hosted by Moscow in 2003, while ignoring the ongoing climate negotiations.¹³⁶

The UNFCCC is mentioned explicitly in the following three declarations adopted by the Arctic Council, all of which consider the importance for the scientific outputs produced under the authority of the Council to be considered in the climate regime.¹³⁷ The later Salekhard Declaration and the Tromsø *610 Declaration also both contained an affirmation of the commitment of the Arctic States to the climate regime.

The 2011 Nuuk Declaration is particularly interesting from the viewpoint of the possible function of the Arctic as a “canary in the coalmine” in the climate process as it is the first Arctic Council declaration to contain an external aspect with regards to

¹²⁹ Arctic Environmental Protection Strategy - The Declaration on the Protection of the Arctic Environment [hereinafter AEPS] (Rovaniemi Declaration), Rovaniemi, January 14, 1991.

¹³⁰ These priorities areas are persistent organic contaminants, oil pollution, heavy metals, noise, radioactivity and acidification. *Ibid.*, sec 3.

¹³¹ AEPS, *supra* note 129, at 6.

¹³² Nuuk Declaration on Environment and Development in the Arctic, September 16, 1993.

¹³³ *Ibid.*, para 10.

¹³⁴ Barrow Declaration on the Occasion of the Second Ministerial Meeting of the Arctic Council, October 13, 2000, para. 3.

¹³⁵ Inari Declaration on the occasion of the Third Ministerial Meeting of the Arctic Council, October 10, 2002.

¹³⁶ *Ibid.*, para. 8.

¹³⁷ Both Reykjavik Declaration and Salekhard Declaration invited the UNFCCC to consider the ACIA, while the Tromsø Declaration refers to the promotion of the report entitled “The Greenland Ice Sheet in a Changing Climate”. Reykjavik Declaration on the occasion of the Fourth Ministerial Meeting of the Arctic Council, November 24, 2004; The Salekhard Declaration on the occasion of the Fifth Arctic Council Ministerial Meeting, October 26, 2006; The Tromsø Declaration on the occasion of the sixth Arctic Council Ministerial Meeting, April 29, 2009.

the climate negotiations since the entry into force of the Convention.¹³⁸ Indeed, aside from the usual reiteration of their commitment to the climate regime, the Arctic ministers also “urge[d] all parties to take urgent action to meet target of 2 degrees”.¹³⁹ The Nuuk Declaration also refers to the most recent scientific output of the Council – the Snow, Water, Ice, and Permafrost in the Arctic (SWIPA)¹⁴⁰.

Meanwhile, the Ilulissat Declaration adopted at the 2008 Arctic Ocean Conference constitutes an additional document adopted in the context of cooperation between some of the Arctic states outside of the formal Arctic Council processes.¹⁴¹ The five Arctic coastal states also highlighted the position of the Arctic as standing “at the threshold of significant changes” on this occasion.¹⁴² The declaration only addressed oceanic aspects and failed to refer to the UN climate regime.

4.2. *Climate-related Projects Led by the Arctic Council*

As a starting point to this analysis, one should take note of the previous successful experience of the Arctic Council and its member states in fostering international cooperation on a particularly important issue for the Arctic region. In 2002, the release of the Arctic Monitoring and Assessment Program’s (AMAP) “Arctic Pollution” report had played an influential role in informing and setting the agenda of the international community in relation to cooperation on the regulation of pollutants.¹⁴³ Also, the agenda-setting role of the Arctic Council is strengthened by its dual nature, closely involving scientific and political projects. While these two functions are more clearly divided between the IPCC and the **611* UNFCCC at the global level, their closer integration in the work of the Arctic Council presents inherent advantages.¹⁴⁴

The Arctic Climate Impact Assessment (ACIA) was the first major project to address the impacts of climate change in the circumpolar world established by the Arctic Council and International Arctic Science Committee. The 2000 Barrow declaration, endorsing the establishment of the ACIA, explicitly mentioned its role as contributing to the work of the IPCC.¹⁴⁵ Although not formally linked to the work of the Panel, the process leading to the preparation of the ACIA report was framed by the interest of the IPCC for further regional climate assessments in order to complete its own

¹³⁸ The Nuuk Declaration on the occasion of the Seventh Arctic Council Ministerial Meeting, May 12, 2011.

¹³⁹ *Ibid.*, at 4.

¹⁴⁰ “SWIPA – Snow, Water, Ice and Permafrost in the Arctic”, (AMAP, 2011).

¹⁴¹ Ilulissat Declaration, Arctic Ocean Conference, May 29, 2008.

¹⁴² *Ibid.*, para. 2.

¹⁴³ Arctic Pollution, AMAP (2002), Koivurova and Hasanat (2009), *supra* note 128, at 57; David Leonard Downie and Terry Fenge, *Northern Lights against POPs. Combatting Toxic Threats in the Arctic* (Montreal & Kingston: McGill-Queen's University Press, 2003).

¹⁴⁴ Annika Nilsson, “A Changing Arctic Climate: Science and Policy in the Arctic Climate Impact Assessment” in Timo Koivurova, E. C. H. Keskitalo and Nigel Banks (eds.), *Climate Governance in the Arctic* (Heidelberg: Springer, 2009), 85. This statement can be slightly nuanced by the fact that the IPCC assessment report already includes an element of political processes in the intergovernmental negotiations of its summary for policy makers. Such negotiations did not take place in the context of the ACIA which resulting in a document based only on scientific inputs and a much more limited role for the governments. Annika Nilsson, *A Changing Arctic Climate Science and Policy in the Arctic Climate Impact Assessment*, Series: Linköping Studies in Arts and Science No. 386 (2007), at 218.

¹⁴⁵ Barrow Declaration on the Occasion of the Second Ministerial Meeting of the Arctic Council, October 13, 2000, sec. 3.

work.¹⁴⁶ The contribution of ACIA to the understanding of global climate change was recognized during the World Summit on Sustainable Development, which highlighted the assessment as an example of best practice of regional cooperation on climate research.¹⁴⁷ The ACIA synthesis report, released in 2004, contained an unequivocal assessment of the scale of climate change impacts in the Arctic:

Key finding 1: The Arctic climate is now warming rapidly and much larger changes are projected.

Key finding 2: Arctic warming and its consequences have worldwide implications.

Most notably, from a policy perspective, the Senior Arctic Officials (SAOs) of the Arctic Council prepared a policy document to complete ACIA with concrete policy recommendations.¹⁴⁸ This broad set of recommendations is organized around two main policy themes that are already adopted by member states in relation to climate change: mitigation and adaptation. This policy document provided a link between the work of the Arctic Council and the global climate regime, not only on the basis of the references to the UNFCCC, but also due to the personal involvement of the national climate negotiators at the later stages of the negotiations of the policy document.¹⁴⁹ In relation to mitigation, the SAOs noted that “*timely, measured and concerted action is needed to address global emissions*” and invited the Arctic states to take into consideration the findings of ACIA in the fulfilment of their obligations under the UNFCCC. The recommendations also called the Arctic states to “*adopt climate change mitigation strategies [in order to reduce greenhouse gases to] levels consistent [with] the ultimate objective of the UNFCCC*”, thus, representing the strongest call for climate mitigation policies endorsed by the Arctic Council.¹⁵⁰ Recommendations related to adaptation policies called for close cooperation with Arctic residents in shaping response policies and adaptive management strategies for Arctic ecosystems, as well as invited the Arctic states to manage economic opportunities related to climate change in a sustainable manner. The SAOs also suggested cross-cutting actions related to research, observations, monitoring and modelling, as well as outreach and education to support action taken in these two policy fields. Finally, the SAOs suggested four recommendations of measures that the Arctic Council could adopt in order to build on the findings of the ACIA report.

Summarizing the policy document, Annika Nilsson concluded that:

*“member states assert their authority over climate policy [in relation to scientific knowledge and the role of indigenous people], while the role of the Arctic Council is downplayed in relation to the UNFCCC”.*¹⁵¹

¹⁴⁶ Annika Nilsson noted that the ACIA and the IPCC were interconnected through many personal connections among the lead authors. Nilsson (2009), *supra* note 144, at 82.

¹⁴⁷ Johannesburg Plan of Implementation, para. 38(i). Nilsson noted that the opportunity for such regional assessments relies on whether the states involved can consider this report as a threat for their national interests, taking the example of the US “United States whose climate policies were most at odds with a message of the Arctic as a bellwether for climate change”, Nilsson (2009), *supra* note 144, at 90.

¹⁴⁸ Reykjavik SAO Report to the Arctic Council Ministerial Meeting (2004); see also the Arctic Climate Impact Assessment, Policy Document, Issued by the Fourth Arctic Council Ministerial Meeting Reykjavik, November 24, 2004.

¹⁴⁹ Nilsson (2007), *supra* note 144, at 131-142.

¹⁵⁰ *Ibid.*

¹⁵¹ *Ibid.*, at 147.

Despite their symbolic importance, these recommendations are rather shallow as they did not consist in any new major obligations, but rather reiterated commitments of the Arctic States.¹⁵² At its fourth ministerial meeting, the Arctic Council noted the scientific findings of ACIA and endorsed these policy recommendations.¹⁵³

One of the main questions arising from the release of the ACIA report related to the follow-up that the Arctic Council would give to this report in order to update the findings at the light of the most recent available scientific data. In 2004 and as suggested in the ACIA policy recommendation prepared by the SAOs, the Arctic Council established a focal point to ensure a follow-up to the ACIA assessment. In its report to the SAOs, the Arctic Council Focal Point for ACIA follow-up activities recommended, among other conclusions, to “plan and implement ACIA follow-up assessments as soon as possible”.¹⁵⁴ However, no formal update process of the ACIA taken place since then. The Arctic Council has rather adopted the follow-up approach on the assessment through the completion of other reports. In order to address this gap, the World Wide Fund for Nature (WWF), a non-governmental organization, commissioned its own update to ACIA in 2008.¹⁵⁵ The key finding of this report consisted in affirming that the observed pace of changes of key Arctic systems was higher than predicted in earlier assessments.¹⁵⁶

One additional consequence of the process leading to the release of the ACIA report consists in the inclusiveness of its scientific component regarding indigenous knowledge. Nilsson pointed out that this process considered such knowledge to a greater extent than ever before,¹⁵⁷ thus providing an indirect entry point for indigenous knowledge in the final outputs of the IPCC. This assessment must, however, be nuanced regarding the process leading to the policy recommendations during which the role of the states was reinforced, providing an argument to actually dismiss claims of a quasi equality between states and indigenous peoples organization in the structure of the Arctic Council.¹⁵⁸

Following the release of the ACIA and the policy recommendations of the SAOs, the Arctic Council requested its working groups to continue their work *supporting, analyzing, and synthesizing Arctic climate research*.¹⁵⁹ Consequently, the AMAP launched its cryosphere project in order to increase the understanding of *changes in Arctic snow, water, ice and permafrost conditions and their effects*. The project resulted in the release of an intermediary report on “The Greenland Ice Sheet in a Changing Climate”.¹⁶⁰ The final outcome of the project, later renamed as “SWIPA:

¹⁵² See Bodansky’s concept of depth of international documents, Bodansky (2010), *supra* note 66, at 177.

¹⁵³ Reykjavik Declaration, *supra* note 137, at 2.

¹⁵⁴ Report of the Arctic Council Focal Point for ACIA Follow-up Activities, presented to the SAOs on 23 October 2006, Recommendation 4.

¹⁵⁵ Martin Sommerkorn and Neil Hamilton, *Arctic Climate Impact Science* (Oslo: WWF International Arctic Programme, 2008)

¹⁵⁶ *Ibid.*, at 6.

¹⁵⁷ Nilsson (2009), *supra* note 144, at 83-84.

¹⁵⁸ Nilsson (2007), *supra* note 144, at 146.

¹⁵⁹ Salekhard Declaration, *supra* note 137, at 2.

¹⁶⁰ AMAP, *The Greenland Ice Sheet in a Changing Climate: Snow, Water, Ice and Permafrost in the Arctic*, (Oslo: AMAP, 2009).

Snow, Water, Ice and Permafrost in the Arctic” was released during the 2011 Arctic Council meeting and highlighted the dramatic changes affecting the Arctic cryosphere over the past decades and the resulting implications for the global climate system.¹⁶¹ The willingness to ensure that this report informs ***614** the work of the IPCC has been made explicit, the AMAP working group have highlighted its plan to cooperate with the IPCC in order to constitute the SWIPA assessment results as “an important contribution” to the process leading to the IPCC fifth assessment report.¹⁶²

The Arctic Council also established a specific task force to address the issue of short-lived climate forcers in 2009. According to the Tromsø Declaration, the mandate of the task force was:

*to identify existing and new measures to reduce emissions of these [short-lived climate] forcers and recommend further immediate actions that can be taken and to report on progress at the next Ministerial meeting.*¹⁶³

The recommendations provided by the task force concerned both mitigation measures and further research activities.¹⁶⁴ While the task force recommended both individual and collective mitigation policies, the Arctic Council, at its Nuuk ministerial meeting, only *encouraged* its members to take national actions and requested that the task force would continue its work.¹⁶⁵

In a study on the climate policies of the Polar Regional Cooperation Forums, French and Scott commented that,

*whilst recognising the importance of establishing sound scientific baselines relating to climate change, there is too much emphasis on science and too little attention paid to legal and policy initiatives.*¹⁶⁶

The analysis of the Arctic Council’s climate change activities by Koivurova and Hasanat nevertheless provides a more nuanced perspective.¹⁶⁷ The authors noted that these activities took place in the context of a lack of strong political commitment by the eight Arctic states for stronger governance in the Arctic region. Despite these limits, they noted the framing role of the Arctic Council through its scientific outputs.

*A good argument can be made that the Council has been able – through the ACIA process – to influence even the global climate change regime since it is fairly uncontested ***615** that the increase and progress in knowledge of climate change and its consequences puts pressure on the politico-legal machinery to strengthen the climate regime.*¹⁶⁸

¹⁶¹ SWIPA, *supra* note 140.

¹⁶² Report of AMAP activities, SAO report to the 2011 Arctic Council Ministerial Meeting (2011), at 33.

¹⁶³ Tromsø Declaration (2009), *supra* note 137.

¹⁶⁴ Arctic Council Task Force on Short-Lived Climate Forcers, “Technical Report: An assessment of Emissions and Mitigation Options for Black Carbon for the Arctic Council”, (Arctic Council, 2011).

¹⁶⁵ Nuuk Declaration (2011), *supra* note 138, at 3.

¹⁶⁶ Duncan French and Karen Scott, “International Legal Implications of Climate Change for the Polar Regions: too much, too little, too late?” *Melbourne Journal of International Law*, Vol. 10 (2009), at 636, emphasis in the original.

¹⁶⁷ Timo Koivurova and Waliul Hasanat (2009), *supra* note 128, at 70

¹⁶⁸ *Ibid.*, at 71.

5. Conclusion

The previous sections have highlighted a double gap existing between the assessment of climate change impacts in the Arctic and the development of the climate change regime. Firstly, despite the role that the region plays in the public discourse as the “canary in the coal mine”, neither the Framework Convention nor the Kyoto Protocol, nor any of the hundreds of decisions adopted by the main bodies established in the climate regime contain any significant reference to the particular circumstances affecting the circumpolar world. This relatively low level of communication and identification with the particularly vulnerable position of the Arctic can be partly explained by the fact that, in most Arctic states, national decision-making takes place in national capitals which are located far South from the Arctic circle.¹⁶⁹ French and Scott also proposed to explain this lack of regional references in the outcomes of the global climate regime based on the reticence to overlap over existing zones of jurisdictions, leaving the *responsibility* to address regional aspects of climate change to these local processes.¹⁷⁰ The authors then noted that it is doubtful that the Arctic institutions have risen to the challenge.

Secondly, despite the Arctic playing a key role in regulating the global climate and the relative similarity in the way in which climate change impacts the northernmost regions of the planet, the implementation of the Convention and associated obligations are particularly fragmented in the region. Indeed, there is possibly no other region on the planet where the climate regime positions of local states diverge as much as in the circumpolar context. From Russia’s position as country “undergoing the process of transition to a market economy” to the refusal of the United States to ratify the Kyoto Protocol or Canada’s more recent decision to unilaterally withdraw, the status of the Arctic states in the climate change regime diverge widely. Additionally, Greenland and Iceland differentiate themselves in the implementation of the protocol due to their particular statuses. The example of the “Icelandic exception” is particularly telling as it is the only specific decision adopted in order to adjust the implementation of the Protocol to the national circumstances of one party. *616

In the context of an overall lack of emphasis on the vulnerability of the Arctic in the position of the Arctic states in the climate change regime, the Arctic Council could be seen as a promising venue for a stronger connection between climate vulnerability and mitigation actions. The recent ministerial declaration, adopted by the Council in Nuuk, includes a call for global climate action, explicitly referring to the specific vulnerability of the Arctic.¹⁷¹ Such a call might lack credibility due to the participation of some of the largest emitters of greenhouse gases and least supportive parties of the current climate regime on the Council. Perhaps more importantly, the Council has also greatly contributed to the definition of the Arctic as a “canary in the

¹⁶⁹ Meinhard Doelle (2009), *supra* note 54, at 48.

¹⁷⁰ Duncan French and Karen Scott (2009), *supra* note 166, at 640.

¹⁷¹ Building on the Nuuk Declaration, the Swedish Minister of Foreign Affairs delivered a statement at a side event organized at the Durban Climate Conference. Speaking on his position of chair of the Arctic Council, he urged “*all countries to take decisive action, recognizing that deep cuts in global Greenhouse Gas emissions are required according to science with a view to reducing global Greenhouse Gas emissions so as to hold the increase in global average temperature below 2 C above pre-industrial levels.*” Statement available at arctic-council.org (accessed June 7, 2012).

coalmine” – or a “global barometer”¹⁷² – in commissioning the Arctic Climate Impact Assessment.¹⁷³ The assessment helped to better understand the circumpolar consequences of climate change and particular regional vulnerability. Considering the lack of adequate mitigation commitments pledged under the climate regime in recent years, one can question the effectiveness of the pressure that such assessments have added to the climate negotiation process.

Reporting on the dramatic consequences that climate change is already having in the Arctic could possibly play an effective role in mobilizing further mitigation action if the Arctic States would prove to the international community that they intend to address the issue adequately themselves. Currently, mitigation actions, pledged under the climate regime - including by most Arctic states – are inadequate in preventing irreversible harm to the Arctic. The five Arctic Ocean coastal states have highlighted their role as stewards of the Arctic in their Ilulissat Declaration.¹⁷⁴ If this claim is to be taken seriously, the large extent to which the Arctic Ocean is being impacted by climate change would surely imply that such a stewardship entails a particular responsibility for these states *617 to reduce their domestic emissions more substantially and to foster support for international cooperation to mitigate climate change.

Another venue for further consideration of the Arctic as a global barometer lies in the review of the long-term global objective for the limitation of the increase of temperatures.¹⁷⁵ Considering that a global increase of temperatures by 2 degrees Celsius would lead to radical changes of the regional climate, and have particularly high impacts on local communities, the example of the Arctic could hence be utilized to interpret the ultimate objective of the regime and define more targets in terms of the maximum increase of temperatures.¹⁷⁶ The terms of reference of the review exhaustively list the sources of information to be taken into consideration in this process, including by submissions from national governments as well as reports from international organizations.¹⁷⁷ The Arctic states hence have the opportunity to provide relevant information, either individually or collectively through the Arctic Council, in order to support calls to strengthen the level of global ambition. Considering the particular sensitivity of the Arctic to global climate change and the fact that the negotiations taking place between now and 2015 will define the future climate change regime, the Arctic states have a narrow window of opportunity to build on the vulnerability of the region and support the strengthening of the global mitigation effort. The presence of a canary in the coalmine is indeed only effective as long as those accompanying this indicator immediately respond to its signals.

¹⁷² This term is used consistently by the Arctic Marine Assessment Programme, see for instance the report of AMAP activities, SAO report to the 2011 Arctic Council Ministerial Meeting (2011), at 11.

¹⁷³ The importance of this assessment is for instance highlighted by the reference included in the Plan of Implementation adopted during the World Summit on Sustainable Development (2002) singling out the ACIA as an example of best practice in climate impact assessment. A/CONF.199/20, para. 38(i).

¹⁷⁴ “*The Arctic Ocean is a unique ecosystem, which the five coastal states have a stewardship role in protecting*”. The Ilulissat Declaration, Arctic Ocean Conference, Greenland, May 2008, at 2.

¹⁷⁵ Cancun Agreements COP decision 1/CP.16, *supra* note 55, para. 138

¹⁷⁶ See for instance for a discussion of this opportunity: Paul Crowley, “Interpreting ‘dangerous’ in the United Nations framework convention on climate change and the human rights of Inuit”, *Regional Environmental Change* 11 (2011): 265–274

¹⁷⁷ Outcome of the work of the AWG-LCA, Decision 2/CP.17, *supra* note 63, para. 161.