



**Master's thesis in West Nordic
Studies**

Black Carbon at the Arctic Council
Mapping discourses and courses of action

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Final thesis submitted in partial fulfilment of a MA degree in West Nordic Studies

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Útdráttur

Útblástur svarts kolefnis hefur margþætt neikvæð áhrif annarvegjar á manneskjur, og hinsegar á umhverfið og loftslagið, þar sem útblástur svarts kolefnis er annar helsti áhrifaþáttur loftlagsbreytinga á eftir koltvísýringi. Þrátt fyrir þessi miklu áhrif, hefur útblásturinn lítið verið fjallaður um á alþjóðavettvangi. Ein af fáum undantekningu á þessu er Norðurskautsráðið, sem er pólitískur samstarfsvettvangur landa á norðurslóðum. Ráðið hefur tekið það að sér að rannsaka víðtæk vísindaleg og tæknileg málefni ásamt því að marka stefnur um málefnið innan þáttökulandanna síðastliðin 15 ár. Hvernig hefur útblástur svarts kolefnis haldið áfram að vera forgangsmál hjá Norðurskautsráðinu? Þessi lokaritgerð greinir framvindu orðræðunnar um stefnur Norðarlandaráðsins um svart kolefni, leitast er sérstaklega eftir að skoða ólíkar aðferðir sem voru notaðar við römmum á viðfangsefninu og áhrif þeirra á orðræðunnar. Fjórar aðferðir eru greindar: svart kolefni greint sem: loftslagsbreytingarvandi; heilsufarsvandi; mengunarvandi; og nýtt vísindalegt og politískt svið fyrir Norðurlandaráðið til að kanna. Allar aðgerðirnar hafa verið notaðar ítrekað í gegnum árin, en ósamræmi er í því hvert samhengi notkunuar er. Að ramma vandann inn sem loftslagsbreytingarvandi virðast vera áhrifamest, þangað til að eftir árið 2017, þegar að samhljóða skilningurinn um aðgerðir gegn loftslagsbreytinga splundrast. Innan Norðurlandaráðsins er greinilegt að það sé fjallað um útblásturs svarts kolefnis, en þó eru menn ekki sammála því hvaða aðgerðir skal framkvæma. Þar að auki er ekki sameiginlegur skilningur á málefninu heldur eru margar greiningar við lýði á sama tíma sem saman byggja upp skilninginn á svörtu kolefni. Þetta hrinti afstað áhuga af málefninu og nýsköpun í stefnuáætlunargerð.

Abstract

Black carbon emissions have a variety of adverse impacts both on humans, creating health problems and affecting crops, and on the environment and climate, as it is today the second contributor to climate change behind carbon dioxide. In spite of these important effects, emissions have rarely been addressed at international level so far. An exception to this is the Arctic Council, a high political regional forum which has taken upon itself to produce extensive scientific and technical knowledge as well as policy guiding on the matter for the past fifteen years. How did black carbon mitigation stay a priority for the Arctic Council? This study analyses the discourses surrounding the Council's black carbon policy and its many evolutions, looking for the different framing strategies used and their influence. Four main framings were identified : black carbon as a: (a) climate change issue; (b) health issue; (c) a pollution issue, and (d) a new scientific and political frontier for the Arctic Council to explore. All four framings have been used consistently throughout years but there is great variety in who uses them and why. The climate change framing appear as the more potent one until the global consensus around climate action crumbles after 2017. The sustained black carbon work of the Arctic Council shows, however, that consensus for action is not consensus on understanding, and that it is actually the different coexisting meanings that black carbon mitigation carries which allowed for sustained momentum and innovative policy making.

Preface

This thesis focuses on discourses around the issue of Black Carbon emissions in the context of the Arctic Council, as well as the institutional resources and policies allocated to it, since the first mention of the issue in 2007 to present day. The author is Galadrielle Pommereau Guitard, student of the West Nordic Studies MA Program at the University of Iceland, and the instructor is Page Wilson, teacher at the University of Iceland as well. The author would like to thank the thesis' instructor for the sustained support, and would like to thank Lilja María Tómasdóttir and her family for helping with the translation of the abstract.

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1 Introduction

1.1 Context and research question

Black Carbon (sometimes referred as “soot”) is a component of particulate matters (PM) which has been known to cause important adverse effects on human health and crops for many years now (Aakre et al. 2017; AMAP 2015; Khan 2016; Shapovalova 2016). Added to this, recent research uncovered that the light-absorbing properties of these particles also made it a major contributor of Arctic warming, and the second-most important contributor of climate change behind CO₂ (Aakre et al. 2017; AMAP 2009; AMAP 2015; Khan 2016; Shapovalova 2016). The lifetime of Black Carbon in the atmosphere is much shorter than the one of Carbon Dioxide (which is a gas and not a particulate matter) identified several decades earlier (AMAP 2009; AMAP 2015) and has been addressed in a variety of ways, which is why it is also referred as a “Short-Lived Climate Forcer”, alongside with Methane and Ozone, two gases with equally short atmospheric lifetimes (AMAP 2015; TF SLCF 2013). This study focuses on Black Carbon however for several reasons : it is not globally mixed and thus stakes are rather regional, has more important effects in the Arctic (AMAP 2009; AMAP 2015; TF SLCF 2011a; TF SLCF 2013), presents large potential for initiative as the international response has stayed low (Aakre et al. 2017; Khan 2016; Shapovalova 2016) and there is a limited legal framework in spite of its very widespread effect (Khan 2016; Shapovalova 2016).

Because it is a component of particulate matters, Black Carbon has been addressed for some time as air pollution (Shapovalova 2016), but the nexus between its health and pollutant effects and its climate forcings has yet to be closed (Yamineva & Liu 2019) : as a result, most responses to Black Carbon take place at state-level in PM control policies and without separating BC from the other Particulate Matters (who do not have climate forcing effects) (Shapovalova 2016; Yamineva & Liu 2019). Because of this and its non-mixing characteristics, there is large potential for addressing Black Carbon at other levels and in creative ways. Despite this, regional or international initiatives tackling the topic are quite rare, or very recent (Khan 2016; Shapovalova 2016).

A notable exception to this is the work of the Arctic Council on the matter, producing both inside reports and public outputs on the topic since 2008. The work of the Council went from scientific assessments of one singular working group to large-scale

policy planning engaging Arctic and observers' states alike, in about fifteen years. It is also the first institution to close the air pollution/climate change nexus as well, while other existing initiatives (specifically the Black Carbon protocol under the *Convention on Long Range Transboundary Air Pollution* (CLRTAP)) are still defined exclusively in terms of air pollution (Shapovalova 2016). However, the context of the Arctic Council is particular, and the Council itself is a rather weak institution : it takes the form of an unusual regional regime, using a consensual mode of decision but with linkages to existing legal instruments, while being an international forum without any legal personality (Barry et al. 2020; Exner-Pirot 2016; Rottem 2021; Tennberg 2000).

The latest Arctic Council ministerial meeting made the headlines during the spring of 2019 for being the first to end without a joint declaration since the Arctic Council establishment in 1996. Quickly, the failure of the draft declaration was narrowed down by press commentators to the US representatives' refusal to sign any official document bearing a mention of climate change (Anonymous, 2019; Breum, 2019b; Gullisken Tømmerbakke & Breum, 2019; Sengupta, 2019). This was understood as the US refusing to engage in any Arctic negotiation around climate change mitigation and adaptation and was met with a lot of anger and frustration from various other participants as they reportedly feared this attitude would severely impede the Arctic Council cooperative actions regarding climate change issues, a majority of the Council's actions at this point in time (Breum, 2019a; Breum 2019b; Gullisken Tømmerbakke & Breum, 2019; Koivurova, 2019).

This led to a variety of strong reactions, especially expressing fears. Yet, the functioning of the Arctic Council itself was not altered. Neither was the functioning of the Working Groups doing extensive work on climate change. Climate change is indeed less mentioned in the statements, and when mentioned the cautious formula "a majority of us" is used (Arctic Council, 2019c) but, if this prevented any further institutional initiatives towards mitigation, it did not degrade the status quo either, simply maintained it. The Working Groups' work plans contained in the Senior Arctic Officials' ministerial report adopted by this statement do refer to a lot of climate change related projects (some even led by a US chair) (Arctic Council, 2019d). And more interestingly for this study, Black Carbon work seems totally unaffected (Arctic Council, 2019d).

In this light, the change of the US position does not seem to severely affect the actions taken by the Arctic Council to mitigate climate change. Yet in a personal testimony, Timo Koivurova, a Finnish participant to SAO meetings, gave a few examples of disturbances caused by the US alignment, even if he recognized that “*The US challenge to the work of the Arctic Council had been visible but it was not systematic.*” (Koivurova, 2019). He mentioned this intriguing point: “*the US did not perceive the work in this expert group [EGBCM] as climate change mitigation but as related to curtailing air pollution*” (Koivurova, 2019). Interestingly enough, this seems to pre-date the US backpedalling on climate change issues. Indeed, a lot of ACAP (*Arctic Contaminants Action Programme*) and EGBCM (*Expert Group on Black Carbon and Methane*) work and projects effectively contribute to reducing emissions of climate forcers but are described without or with rare mentions to climate change in the previous SAO reports (Arctic Council 2017c; Arctic Council 2019d). Nevertheless, the climate mitigation effort is one the main pillars of The Arctic Council Framework’s on Black Carbon and Methane, the most extensive political commitment made by Arctic States on the topic (Khan 2016; Shapovalova 2016), which the US effectively signed and did not pull out of yet.

To understand the consequences of the recent shift from the US representatives on climate issues and more generally the visible weaknesses of the consensus system, it is necessary to understand the general dynamics Black Carbon negotiations in the Arctic Council, which seems to be more complex than establishing the extent of action from a single shared understanding. What is climate mitigation for some is not for others but can find other justification such as curbing air pollution. This suggests that Black Carbon mitigation can be articulated in a variety of registers, sometimes without even mentioning the phrase “climate change”, in spite of the important climate effects such mitigation will have. From an external point of view, this shows a discrepancy between discourse and action: while there is an unsettled debate around framing, there is a consensus on action. The BC issue is evidently complex, which should prevent it from being tackled in simple, rapid, efficient way (Barrett and Dannenberg 2012), but on the other hand, this complexity seemed to allow for discursive flexibility, and keeping the issue high on the agenda, as it has been for fifteen years now. But how? **How did Black Carbon mitigation become and stay a priority issue for the Arctic Council?**

The aims of this study are multiple : one the one hand, this work aims to produce a better understanding of the complexities and characteristics of the Black Carbon issue itself by taking a step back, and a better understanding of how the evolution of this issue to the forefront of climate and environmental discourses means for the future of these debates as a whole. On the other hand, this work intends to demonstrate how different framing strategies can act as favorable factors influencing the outcome of negotiations processes. At the theoretical level, this study aims to provide new insight into the constructivist assumption that words have power (Blue 2016; Grobe 2010; Howarth 2017; Mintrom & Luetjens 2017; Preston 2014; Rosenbloom 2018; Shcroeder & Lovell 2012; Scrase & Ockwell 2010; Vanhala & Hestbaek 2016), and by demonstrating that full consensus is not a necessity for political action, to show that the renegotiation of intersubjective meanings is not only constant (Schroeder & Lovell 2012; Vanhala & Hestbaek 2016), but also necessary for the status quo to evolve and for social reality to adapt to wider changes.

1.2 Literature review

As a starting point, it is understood here that reality is intersubjective, constantly reshaped by human values and discourses, creating meaning and drawing boundaries through a perpetual confrontation. The author aligns with the constructivist perspective that words hold power, and can shape negotiation outcomes (Blue 2016; Grobe 2010; Howarth 2017; Mintrom & Luetjens 2017; Preston 2014; Rosenbloom 2018; Shcroeder & Lovell 2012; Scrase & Ockwell 2010; Vanhala & Hestbaek 2016).

As mentioned above, Black Carbon emissions came forward as an issue pretty recently, as the scientific findings demonstrating accurately the extent of its various impacts are themselves pretty novel (Aakre et al. 2017; Khan 2016; Shapovalova 2016). Because of this novelty, there are not that many “arenas” in which relevant policies and programmes are negotiated besides national particulate matters programme (Shapovalova 2016, Yamineva & Liu 201?), and as a logical consequence, the literature around such negotiations is rather scarce. Black Carbon mitigation has been discussed in a wider context of “low carbon” change however, at the local scale (Rosenbloom 2018), and this work underlined the complexity of such negotiations as they are not only understood in terms of climate, but through a large diversity of themes (Khan 2016;

Rosenbloom 2018; Shapovalova 2016). Moreover, it is not always clear whether low carbon “pathways”, “programmes”, “futures”... negotiations include Black Carbon mitigation or not (Howarth 2017; Feldman & Hart 2018; Mossler et al. 2017; Scrase & Ockwell 2010). At a wider scale, the regional efforts of the Arctic Council to tackle the issue did attract attention and praise for their singularity (Exner-Pirot 2016; Khan 2016; Shapovalova 2016), but so far, the literature focused on analysing the 2015 Arctic Council Framework on Black Carbon and Methane and its implications from a legal point of view only (Khan 2016; Shapovalova 2016). Commentators celebrated the creation of the Framework and expressed positive expectations for it, as well as drawing comparisons with the CLRTAP protocol on Black Carbon and underlining their respective (and co-reinforcing) strengths (Khan 2016; Shapovalova 2016). After this wave of enthusiasm however, there does not seem to be any follow-up analysing the efficiency, or simply the consequences of the Arctic Council’s Black Carbon Framework after a few years of enforcement.

Recently, an assessment of the functioning and efficiency of the ACAP Working Group, which produces a lot of Black Carbon related work, was undertaken, highlighting the potential for larger action (Rottem 2021), a similar diagnostic to the one addressed to the Arctic Council as a whole through other assessments. Such potential for the Arctic Council is identified in the peculiar circumstances of its establishment, as an environmental initiative turned progressively into a high-level forum with a broadened mandate, as well as in the peculiarities of its format, such as the strong inclusion of Indigenous Peoples in its processes and the fact that it is not a legal body, giving it both vulnerability and flexibility (Barry et al. 2020; Exner-Pirot 2016; Tennberg 2000). The potentiality of the Arctic Council put in perspective with its efficiency so far was particularly explored after the events of the Finnish Chairmanship and the Rovaniemi Ministerial mentioned above, which clearly brought the Arctic Council’s weaknesses to the spotlight (Barry et al 2020). Some commentators also explored possibilities for Black Carbon mitigation from the same regional scale but through a “club” type of cooperation with restrictive trade barriers for non-members (Aakre et al. 2017). Nevertheless, such results are to be considered with caution : given the prominence of the Arctic Council in the Arctic in general, and on such issues in particular (Barry et al. 2020; Exner-Pirot 2016; Tennberg 2000), there is very little possibility for such restricted clubs developing on

those issues, nor the Arctic Council itself developing restrictive trade barriers or similar kind of exclusive policies (Barry et al. 2020; Exner-Pirot 2016).

If Black Carbon is not always discussed in such studies, the literature analysing the dynamics of “low carbon” negotiations in general still sets a fundamental precedent to this enterprise : it explores, as mentioned prior, negotiations of similar complexity, overlapping contexts and shared themes with Black Carbon related negotiations, often using similar methodological tools. This is especially true as Black Carbon debates are intimately linked to energy policy debates (Rosenbloom 2018), and that “*in developed countries, climate policy is overwhelmingly a matter of energy policy*” (Scrase & Ockwell 2010). In short, the literature around “low carbon” and general climate policy negotiations provides robust analytical tools and frameworks for similar objects. On such topics of energy and climate policy negotiations, a lot has been done and found, but one trend that appears clearly is that the multi-dimensionality and novelty of these topics can slow down consensus-reaching because of the inherent uncertainty attached to them (Barrett & Dannenberg 2012), yet such uncertainty and complexity simultaneously make a space for problem-framing and other discursive strategies to have a significant impact on outcomes, both at high-end negotiations (Allan & Hadden 2017; Mintrom & Luetjens 2017; Vanhala & Hestbaek 2016) and general public level (Mossler et al. 2017, Howarth 2017), or both (Blue 2016; Scarse & Ockwell 2010; Whitmarsh et al. 2019; Tjernshaugen & Lee 2004). This corpus allowed to uncover the power of framing on negotiations’ outcomes (Blue 2016; Mintrom & Luetjens 2017; Vanhala & Hestbaek 2016), and uncover the potentiality of framing as a tool to enhance the lackluster agency of certain Non Nation-States Actors such as NGOs (Allan & Hadden 2017; Schroeder & Lovell 2012; Tjernshaugen & Lee 2004) or Indigenous Peoples (Schroeder 2010; Schroeder & Lovell 2012, Toussaint 2018). The literature demonstrates how ambiguity and multiple framings allow for creative engagement and discursive flexibility (Blue 2016; Vanhala & Hestbaek 2016), especially in the case of multi-level negotiations spaces and epistemic diversity (Blue 2016). This is relevant in the case of the Arctic Council, a platform which simultaneously acts as an epistemic community and a political platform for its members (Barry et al. 2020; Rottem 2021; Tennberg 2000), and has tried addressing epistemic diversity (with more or less success) from the start (Rottem 2021; Tennberg 2000). It is worth noting that in spite of the longstanding complexity of Black Carbon-related

negotiations, its association with climate change framings (in other spaces than the Arctic Council) is actually quite recent (Shapovalova 2016; Yamineva & Liu 2019), although that appears unsurprising while keeping in mind the dominance of the traditional paradigm of climate change as a CO₂-only problem (Blue 2016; Preston 2014). But this means a new section of Black Carbon debates has opened globally, entangling a long-lasting, global debate of unprecedented complexity (Barrett & Dannenberg 2012; Blue 2016; Howarth 2017; Feldman & Hart 2018; Preston 2014; Whitmarsh 2019) to an already conflictual discussion (Rosenbloom 2018). The merging of those debates needs to be analysed : if it is interesting for Black Carbon mitigation and may modify outcomes on the one hand, there is also large potential for it influencing and reshaping overall climate discussions in return, as the inclusion of Black Carbon in climate debates implies a paradigm shift (Preston 2014) that would not go without consequences.

With a constructivist understanding that the scientific, technical and political relevance of an issue is socially, intersubjectively constructed and depending from a situated context (Blue 2016; Druckman 1983; Grobe 2010); and that institutional change needs the impulse of problem-framing (Mintrom & Luetjens 2017; Vanhala & Hestbaek 2016), this work aims at retracing the evolution of the Arctic Council's engagement with the Black Carbon issue and identify the ideational factors (here, discursive frames) that shaped such evolution overtime : mapping discourses (ideational factors) and courses of action (decisions made in the identified context). Even if the Arctic Council is a particular context within a stable regional system (Barry et al. 2020; Stokke 2011; Tennberg 2000) by certain aspects, it isn't a closed system either. As such, the "Arctic exceptionalism" framework is far from sufficient to explain successful cooperation and programme enforcement (Stokke 2011; Käpylä & Mikkola 2015) especially as engagement with non-Arctic states has risen consistently in recent years, and that is particularly true for Black Carbon work (Barry et al. 2020; Khan 2016; Shapovalova 2016). As a result, potent factors identified in the Arctic Council's context probably retain power in other regional context. It is, however, the only existing regional-level program which is enforced by all members of the organization, as well as observer states (Khan 2016; Shapovalova 2016), which effectively makes it the largest enforced Black Carbon initiative at the international level. Moreover, this study covers a timeframe of fifteen years, which is uncommon in the literature (Vanhala & Hestbaek 2016) and will allow to follow the negotiation processes

from advocacy to institutionalization in their totality, uncovering how framing strategies handle the test of time and institutional changes in the medium to long-term.

1.3 Methodology

This study seeks to unveil some ideational factors, as in the different definitions and justifications for Black Carbon policy used by different actors, and the way these arguments and meanings interact to create consensus or dissent, that is, how those factors shape policy-making processes. The qualitative design of this study answers the need for an account of those discourses. What are the various Arctic Council's actors understanding(s) of the issue? Ideational factors are carried through language (words) and context (images, spaces and other way to signal meaning) (Grobe 2010; LeGreco 2014): this study will thus carry a discourse analysis of the discussion and debates that accompanied the Arctic Council's actions on Black Carbon overtime, from the first mention of Short-Lived Climate Forcers at SAO level to the last (2007-2021)¹. Discourse here is understood as the social practice to give meaning(s) to an issue (LeGreco 2014).

The data collected to carry such analysis is a corpus of reports from SAOs and Ministerial Meetings, as well as certain issue-specific reports from Working Groups and Task forces/Expert Groups². This corpus does not include every single output produced in relation with Black Carbon however (for example, internal documents and drafts from Working groups and Task Forces/Expert Group are not included). This is for several reasons, first of all, the aim of this study is not to assess the work undertaken on Black Carbon by the Arctic Council. Some discussion of it will occur in chapter 2, by way of background context, but it is not the object of the study. The object of the study is the negotiations around such work, so the corpus focuses on the spaces where problems and priorities are discussed: at the Senior Arctic Officials' level first, because they are de facto the ones shaping the Arctic Council overall strategy (?? Ref), and then at Ministerial meeting level, as those meetings not only gather the highest decision-making powers but are also more open negotiations spaces in which the engaging audience is much larger.

¹ Because of delays in the update of AC archives, the latest included document dates back to November 2020.

² Refer to the list

Lastly, this choice was also made with regards to the limited technical possibilities and time constraints encountered in the context of a Master's level project.

This analysis was conducted according to the following sequence : first, once the entire corpus was assembled, a content analysis allowed to chronologically identify the relevant decisions and institutional changes made in response to Black Carbon-related concerns. This "story" of Arctic Council's Black Carbon action is retraced in Chapter 2. As the core of this study is not process tracing but discourse analysis, there is no intention to uncover causal mechanisms leading from one decision to the other here, but simply understanding the chain of event. This step allows to set up the context. Following this, a second content analysis was undertaken to identify distinct enough narratives and frames used in discussion around that same issue. Four were identified : the climate change framing, the pollution framing, the health and other co-benefits framing and finally the pioneering framing. Then, by weaving together the findings of the two first analyses, the study aims at uncovering which narratives did matter, and to who : what were their strengths and weaknesses in the negotiations realm. Chapter 3 presents those findings. Finally, the assessed framings and the storyline are confronted to each other and to the literature, in order to demonstrate the theoretical take away of the study : the aim is to show that words and context did have power in this case, and that the renegotiations of social meanings is not only constant but also ultimately necessary for cooperation (contrary to a need for absolute consensus).

Because of the largely interpretive nature of discourse analysis, recognizing the author as a "human instrument" of science, socially positioned and thus carrying inevitable biases, there is a will to make the data as visible as possible in the text. For this reason, quotes do take a large space in the text, with a double aim : to make the author's interpretive process as transparent as possible on the one hand, and to allow for the reader to confirm or disprove of the conclusions, to allow the reader to follow their own interpretive process while reading on the other.

1.4 Limitations

Beyond the technical and time constraints mentioned above, there are some other fundamental limitations that are important to account for. Firstly, and this has been already mentioned above as well, but there is an inevitable reflexivity problem, as the

analysis is not conducted by an impartial being, but by a human carrying their own personal values, as well as a student fitting their work to the standards of Western academia. The author has no personal involvement with the actors constituting the object of study, but that is in no way a guarantee of distance. All of those parameters should be kept in mind while reading.

Added to that, the study's design justified above still carries limitations. First of all, one problem is the lack of triangulation. Indeed, all data is extracted from the Arctic Council's archives and presents itself in text form. If follow-ups were undertaken, time and budget allowing, the author would recommend to complement the data with semi-directive interviews of the actors involved, as well as an analysis of media outputs. If the findings using data from those different sources converge, this would greatly solidify the concluding claims and secure the value of their contribution to practice and theory. Second of all, as mentioned above again, is the lack of exhaustivity problem. This study does not review every single happenstance related to Black Carbon over the fifteen years timeline, only the ones identified as relevant. Nonetheless this identification itself is a choice that can be contested on methodological and epistemological grounds. An exhaustive review would avoid such contestation, but was not realistically possible under the given conditions.

Lastly, a problem worth mentioning is the data quality problem. As mentioned hereinabove, all data collected is from Arctic Council's archived reports. Such reports present a certain number of inherent limitations. First of all, they are written after the facts, not too long but enough to leave out some information. Second of all, it has been pointed out in the literature that "*The Arctic Council is a close-knit group, and it is unusual to hear criticisms of individuals or events even privately, let alone in the public report.*" (Exner-Pirot 2016, p.88), and that is of course very true for post facto public records that are evidently flattening out dissent. Moreover, the quality of such records is very variable from one chairmanship to the other in particular. Some are quite detailed with comments systematically related to the actor making them (for an example see Arctic Council 2016a), some on the other hand are very scarce and it is very difficult to link discourse to actor (for an example see Arctic Council 2012a). The reporting is however systematic, and the agenda and its modifications always explicit : all in all, this produces enough content for an analysis of this level.

2 Making the Issue : A History of the Arctic Council's Black Carbon policy

Firstly, this chapter aims at identifying the sequences of actual resources allocation (mandate, staff) and priority levels attribution of Black Carbon related work and projects overtime. The issue of Black Carbon, and of short-lived climate forcers in general is now visibly prominent in the work and agenda of the Arctic Council : a Framework for Action endorsed in 2015 establishes a general Arctic Council policy on the matter of Black Carbon and Methane, coordinating the work of states, working groups and of the the only Expert Group of the Council which is dedicated to this issue. In parallel, it appears regularly as a distinct item in chairmanship programs and agenda of Senior Arctic Officials' meetings (see for example any of the references between Arctic Council 2007b and Arctic Council 2019e on the list). But the issue appeared fairly recently in the Council's agenda regarding its twenty-four years of existence, and it went through several levels of prioritisation. Four sequences of action were identified : first shaping the issue, then urging institutionalization, establishing routinization and turning towards policy making, and lastly expanding the extent of the policy inward in parallel to a loss of political momentum at high-level. ³

2.1 Politicization : shaping the issue under the Norwegian Chairmanship and the first Task Force (2006-2011)

Before being allocated any resource, an issue must be recognized as a problem by all decision-making parties (Allan & Hadden, 2017; Howarth 2017; Mintrom & Luetjens 2017; Rosenbloom 2018; Schroeder & Lovell 2012; Tjernshaugen & Lee 2004), and the amount of resources allocated will depend on the degree of importance participants have agreed on (Mintrom & Luetjens 2017; Rosenbloom 2018; Vanhala & Hestbaek 2016; Whitmarsh et al. 2019). This is especially true in the case of the Arctic Council which is a consensus based forum (Barry et al. 2020; Tennberg 2000). Logically then, the first phase of tackling an issue consists in negotiating its boundaries, to reach agreement on meaning

³ As per APA6 standards, the sources are organized by alphabetical order when there are several for a single year. This leads to the order of sources being different from the chronological order (for example, „Arctic Council 2008b“ coming before „Arctic Council 2008a“ in chronological order). The author apologizes for the inconvenience, asks the reader to keep this in mind and refer to the bibliography if needed.

and priority and outlining what is a relevant amount of resource allocation and where does responsibility lie.

Black Carbon (under the “Short-Lived Climate Forcers” umbrella) appeared in the Senior Arctic Official’s recommendations to ministers for the first time in 2009 at the Tromsø meeting (Arctic Council 2009d p.8). This happened in the context of a strong focus on climate change established during the Norwegian chairmanship, such focus being somewhat of a novelty considering that so far the Arctic Council was focusing primarily on the notion of sustainable development, and a more traditional understanding of environmental protection (meaning extensive work focused on biodiversity and pollution control, especially nuclear) (Barry et al. 2020; Tennberg 2000). It would be dishonest to imply that the Arctic Council did limited work on climate change until this date, as the previous Arctic Climate Impact Assessment (ACIA) report (Arctic Council 2004), result of years of work from the AMAP working group, is a key element in the establishment of numerous climate related projects within the Arctic Council working group (see Arctic Council 2006a, Arctic Council 2009d for examples). It is also as a response to ACIA that Norway chose to single out climate change as an overarching theme of its chairmanship (Arctic Council 2006a).⁴

The issue of Black Carbon (or Short-Lived Climate Forcers in general) specifically is not introduced from the start. The Senior Arctic Officials’ meetings minute indicate that there is from a start a strong will of providing follow-up on ACIA (Arctic Council 2007a; Arctic Council 2007b), but the “how to” is not very clear. An overall preoccupation of the chairmanship is assessing and monitoring available knowledge :

“During the Norwegian chairmanship, priority will be given to initiating new studies and assessments to fill knowledge gaps in the following priority areas :

1. Strengthening climate change research and monitoring [...]
2. Strengthening the adaptive capacities of Arctic residents [...]
3. Considering initiatives and measures to reduce emissions and enhance removals of greenhouse gases in the region [...]” (Arctic Council 2006a, p.8-9)

⁴ It is worth noting that this chairmanship was presented as the “Norwegian-Danish-Swedish chairmanship”, allowing for continuity. This idea does not seem to hold the whole way through however and is notably absent from the Swedish chairmanship programme (Arctic Council 2011e).

The first suggested follow-up projects on climate change are focused on cryosphere for one (relying on the AMAP working group), and adaptation for the other (relying on the SDWG) (Arctic Council 2007a). It is made clear again that the aim is to provide an “[...] *assessment of the research in the science community*” (Arctic Council 2007a, p.7), but this creates some tension as many fear a duplication of existing work :

“Norway reiterated this is not a new ACIA, and not duplicative of IPY or IPCC.” (Arctic Council 2007a, p.7)

“IASC stated it is important to make sure this project is well linked with what is happening now in the scientific community” (Arctic Council 2007a, p.7)

“The United States stated that it could not join consensus to allow this project to go forward given that: 1) the proposal was insufficiently clear and appeared to be duplicative of existing and on-going climate change work; 2) the project could not in any way become an “assessment” nor a second ACIA [...]” (Arctic Council 2007a, p.8)

“AMAP confirmed that the project is not intended to be a large-scale ACIA-2” (Arctic Council 2007b, p.7)

“Clarification was sought on linkages with ongoing research under IPY, the potential for duplicating IPY activities, and the capacity of experts involved in IPY to also contribute to the project. AMAP stressed that the AMAP Climate Expert Group developing the project consists of many scientists closely involved in IPY projects, and they are aware of what is already being done through other avenues. AMAP underlined that this synthesis and integration effort not being undertaken elsewhere.” (Arctic Council 2007b, p.8)

This is important to note, because when AMAP suggests “ [...] *to organize a workshop to clarify the science behind the effects of non-CO2 drivers on climate change and melting snow and ice from an Arctic perspective*” (Arctic Council 2008b, p.4), it receives “*broad support*” (Arctic Council 2008b, p.4) without questions of possible duplication. It is a topic that had not been discussed within the Arctic Council before, was not the subject of any international agreement at the time and even the scientific findings presented by external actors clearly show uncertainties :

“Brooks B. Yeager, Vice President, of the Climate Policy Center, Clean Air Cool Planet on behalf of Clean Air Task Force and Circumpolar Conservation Union (CCU) presented scientific indications of a large influence of short lived pollutants on Arctic warming” (Arctic Council 2008b, p.4, emphasis added)

“Reduction in these short-lived pollutants may slow arctic climate forcing relatively quickly (i.e. compared to CO₂) due to their short-lived nature” (Arctic Council 2008b, p.4, emphasis added)

The workshop was approved and its result, presented during the next plenary meeting, consists of a one page document presenting a summary of policy recommendations with scientific backing as well as a list of possible research topics (AMAP 2008). Precisely because of the scientific uncertainty, but also because of appearing concern of duplication with UNEP LRTAP work, AMAP’s call for immediate action is turned down (Arctic Council 2008a, Arctic Council 2009c). The working group is encouraged to continue “*to develop this work*” (Arctic Council 2008a, p.4), i.e. scientific assessments, but the development of policy recommendations or implementation work fails to win unanimous support (Arctic Council 2008a; Arctic Council 2009c). A few months before the 2009 ministerial meeting in Tromsø, the US proposal of establishing a task force unsurprisingly receives mixed reactions :

“Some SAOs and PPs supported the establishment of a task force to look further into potential mitigation actions and/or broader policy responses and welcomed the US proposal to take the lead. One SAO suggested that it may be early to mandate a task force to develop concrete recommendations while still developing understanding of the scientific part of the issue.” (Arctic Council 2009c, p.3)

The session is rather inconclusive. Nevertheless, the Senior Arctic Officials do not postpone the decision making to the next chairmanship : “*SAOs agreed to continue their discussion on Arctic Council follow up on the issue of SLCF in the context of their drafting of the Ministerial declaration and SAO Report.*” (Arctic Council 2009c, p.3). This is rather surprising giving the short timespan left to reach consensus. The recommendation to establish the Task Force which appears in the 2009 report to minister is therefore even more surprising.

Indeed, the report to ministers of 2009 includes a short section dedicated to short-lived climate forcers, stating the need to reduce such emissions to slow climate change, as well as “*actions suggested to consideration by the Arctic Council*” (Arctic Council 2009d, p.8), including both scientific assessments and political actions in clearly defined fields. This is assorted of four recommendations to ministers, two of which pushing for the continuation of scientific *and* policy work within the Council:

“The Senior Arctic Officials : [...]

- Decide to continue AMAP's work on short-lived climate forcers.
- Establish a task force on short-lived climate forcers reporting directly to the SAOs, to exchange information on existing national policies, regulations and opportunities for immediate voluntary action in the Arctic States to reduce emissions of short-lived climate forcers, to develop recommendations for further immediate national and international actions, including joint proposals for the SAOs to consider for submission to relevant international bodies, and to review progress and re-examine the need for and mandate of this task force at the next Ministerial Meeting. [...]” (Arctic Council 2009d, p.10)

To which the ministerial declaration answers with :

“[The ministers] Decide to establish a task force on short-lived climate forcers to identify existing and new measures to reduce emissions of these forcers and recommend further immediate actions that can be taken and to report on progress at the next Ministerial meeting,” (Arctic Council 2009e, p.3)

This decision lays out the task force mandate, which is rather broad. No explicit definition of “these forcers” is given neither in the report nor in the declaration, only examples : “*SLCFs such as black carbon, methane and tropospheric ozone*” (Arctic Council 2009d, p.8). There actually seems to be some confusion : the AMAP 2009-2011 work plan has both a “*Non-CO2 drivers of climate change*” (Arctic Council 2009d p.41) and a “*short-lived climate forcers*” (Arctic Council 2009d, p.42) section while the terms were used interchangeably in the previous SAOs' meetings. Moreover, the “*Non-CO2 drivers of climate change*” section strongly resembles the task force mandates :

“Compile a report on the current, planned and potential activities regulating emissions of non-CO2 drivers and evaluate possible further mitigation actions.
 Develop recommendations for national and international follow up action.
 Report the results of the above to the 2011 Ministerial meeting.
 Consult with appropriate UNEP bodies about UNEP considering incorporating information on black carbon and the need to mitigate emissions for Arctic climate benefit into its climate change programme.” (Arctic Council 2009d, p.41)

While the “*Short-lived climate forcers*” section fits more AMAP's overall mandate on the topic :

“Continue to assess the state of the science on short lived climate forcers and their impact on the Arctic.
 - Identify gaps in observations of short lived climate forcers and promote new observations to fill those gaps

- Assess and seek to improve the capacity of climate models to address short lived climate forcers.” (Arctic Council 2009d, p.42)

Another interesting element is the mention of *“quick-action climate mitigation strategies”* (Arctic Council 2009d, p.38) in the ACAP work plan. Even if it is mentioned that *“This work on non-CO2 drivers/short-lived climate forcers has also highlighted the link between climate change, air pollution and health.”* (Arctic Council 2008a p.3; Arctic Council 2009d, p.8), there was no discussion of involving ACAP in the SAOs’ previous meetings. Yet, this idea of “quick action” climate policy is definitely how Short-Lived Climate Forcers action is defined early on (Arctic Council 2008a, Arctic Council 2008, and see 3.1.). There seems to be a lack of coordination. The delay in the actual establishment of the Task Force is also a cue in this direction : *“There was some concern that 7-8 months after Tromsø the TF has not yet met.”* (Arctic Council 2009b, p.3). This seems to confirm the theory of a hasty decision, which is surprising for a large consensus-based forum such as the Arctic Council.

Despite the first mishaps, the delimitation of the Task Force’s work area is rapidly established :

“Although methane and ozone are also important, the Task Force will focus on black carbon, because it is the area in which the Arctic Council can add the most value.” (Arctic Council 2010b, p.7)

“The task force has kept major focus on black carbon because it is the particular pollutant requiring the most action and thus offers the greatest opportunity for an Arctic Council contribution to the global climate debate.” (Arctic Council 2010a, p.4)

The Task Force mandate is articulated in two parts, to *“exchange information on existing national policies”* (Arctic Council 2010b, p.6) on the one hand and to *“identify existing and new measures”* (Arctic Council 2010b, p.7), carrying implications of a focus on state-level action. Involvement of the Permanent Participants, which are non-state actors but explicitly recognized within the Arctic Council as relevant stakeholders, is also brought up early on (mainly by the Permanent Participants themselves)

“The importance of PP involvement, especially in the policy recommendation stage was stressed” (Arctic Council 2010b, p.8)

“PPs expressed that they should be better integrated/included in the work of the task force.” (Arctic Council 2010a, p.5)

“SAOs also underscored the importance of involving Permanent Participants” (Arctic Council 2010a, p.5),

but it is clear that the Task Force work is primarily thought as a “by states” and “for states” action:

“National representatives are responsible to provide information on national emission inventories, policies and programmes, and will serve as the core TF group to develop recommendations.” (Arctic Council 2010b, p.7)

“Each country representative will have an opportunity to review any country data being used.” (Arctic Council 2010b, p.8)

“The work being done nationally is very important” (Arctic Council 2010a, p.5)

“To develop the policy recommendations on concrete, immediate actions it is now important to bring in the policy experts of different governments. Several noted that the national actions would need to be tailored to different country’s needs and emission sources.” (Arctic Council 2010a, p.5)

but this also means that its work is hindered by the heterogeneity of national situations :
“[...] most countries do not yet have official black carbon and organic carbon emission inventories” (Arctic Council 2010b, p.7). Having to rely inventories from the research community, the Task Force outlines its own work plan, identifying six fields to prioritize :

“Current data points to on-road and off-road diesel transport as the highest source of BC emissions in the Arctic, followed by wildfires and prescribed burning, as well as agriculture burning (particularly in the USA, Canada and Russia). Residential burning appears to be a more significant source than was thought. There is concern about a future increase in shipping emissions. The extent of data related to emissions from gas flaring is particularly uncertain.” (Arctic Council 2010b, p.7)

“The largest emission sources can now be identified and are 1) transport: on-road and off-road diesel vehicles, 2) residential burning, 3) agricultural/open burning: a large source in some countries (Canada, Russia, USA) 4) shipping: currently a small source, but of concern given an expected increase, 5) gas flaring, a potentially significant source, but largely unknown- due to lack of data availability.” (Arctic Council 2010a, p.4)

It is interesting to note that the lack of national coordination and the scientific uncertainty both reinforces the political support for the Task Force’s objectives (in terms of “added value” from the Arctic Council, as shown at the beginning of the paragraph), and opens a space for it to negotiate its own mandate. The scientific uncertainty opens a space for political negotiations. But they also bring about concerns regarding the quality of the

output realized within the established timeframe, and even the feasibility of producing such a large output in this amount of time :

“They agreed that [...] the deadline is ambitious” (Arctic Council 2010b, p.7)

“A key concern is ensuring high quality inventories. For some, it is challenging to meet the TF timelines.” (Arctic Council 2010b, p.8)

“SAOs agreed that a signal from DMs to enhance and speed up the cooperation and contributions would be useful” (Arctic Council 2010b, p.7-8)

“The TF was requested to take due account of the comments , including the importance of ensuring high quality of the work” (Arctic Council 2010b, p.8)

There simultaneously exists a consensus on the fact that the Task Force had to limit its own mandate, limiting itself to a defining process, and a fear that it will go beyond it. From very early on these fears and this contradiction is dealt with by the possibility of extending its timeframe

“It was noted that if there was additional work beyond the mandate, the TF might be tasked to continue to operate post the 2011 Ministerial.” (Arctic Council 2010b, p.8)

“It was suggested that the work of this task force be continued beyond the Ministerial 2011, because of the need to look further into other black carbon emission sources (e.g. gas flares), methane and troposphere ozone.” (Arctic Council 2010a, p.5)

“Finally, SAOs asked the Task Force to consider possible post Nuuk activities.” (Arctic Council 2010a, p.5)

It is then without surprise that the renewal of the Task Force mandate was agreed without dissent :

“Regarding the organization of the future work on SLCF all agreed that it should continue, particularly given that the task force mandate was only able to address one of the three tasks assigned to it.” (Arctic Council 2011a, p.4-5)

Especially as obtaining consensus on the final report proved difficult in reason of the lasting quality concerns

“Concern was expressed regarding the summary report being too short and not including an explanatory text. Furthermore, there was concern that the key findings seemed to have been found before the technical report had been finalized and that it lacked a recognition of the different economic and regulatory realities in the various Arctic states.” (Arctic Council 2011a, p.5)

“It was decided to create a break out group to solve the question, which came back on the last day of the meeting with an agreed text for a disclaimer to be added to the report on which there was consensus.” (Arctic Council 2011a, p.5)

Aside from the TaskForce itself, there is early coordination with AMAP short-lived climate forcers’ Expert Group (Arctic Council 2010a, Arctic Council 2010b) leading to an updated scientific report to be presented at the Nuuk ministerial (Arctic Council 2011a); and it is regularly reminded that the Arctic Council’s short-lived climate forcers action is meant to be coordinated between the different interested structures :

“The TF is coordinating with the AMAP SLCF Expert Group, tasked with updating its science report on the role of SLCFs in the Arctic” (Arctic Council 2010b, p.7);

“The AMAP Chair confirmed that the SLCF expert group is well integrated in the work of the task force.” (Arctic Council 2010a, p.4-5)

Nevertheless, the first ever talks of possible ACAP involvement appear only in 2010. The national Black Carbon Initiative from the US brings about the idea of using ACAP mechanisms to implement demonstration project :

“There is potential that the initiative could include ACAP projects funded through the PSI and other associated projects leveraged through NEFCO” (Arctic Council 2010b, p.9)

“It was suggested that existing mechanisms be used and that ACAP have a role as it is the working group most experienced in implementation of demonstration projects” (Arctic Council 2010b, p.9)

Following this discussion, a dedicated Project Steering Group was established within ACAP on an internal decision, with planned finances from Norway, Sweden and Finland (Arctic Council 2010a). It is interesting to note that the proposal of demonstration projects was emphasized by Permanent Participants, as a response to their de facto exclusion from the Task Force. The ACAP structure offered them another point of entry into the short-lived climate forcers’ debate and policy : *“PPs expressed that they should be better integrated/included in the work of the task force. They encouraged demonstration projects, for example in ACAP.”* (Arctic Council 2010a, p.5). No other ACAP output is presented to the 2011 Nuuk ministerial beyond the creation of the Project Steering Group however (Arctic Council 2011d).

In conclusion, it appears clearly that the issue first needed politicization, that is, the process through which an issue is made into a problem necessitating a political response. This is quite clearly what happens during the Norwegian chairmanship, where

definitions and priorities keep being renegotiated. Then, when *why* is Black carbon an issue relevant to the Arctic Council has been established, there is a need to define *who* takes responsibility for action, and *how* this action will be carried out. Of course, as for the “why”, there is not a single answer to this question and one can clearly see that a lot of debate during the Danish chairmanship focuses on defining the relevant course of action, in spite of established (but vague) mandates.

2.2 Institutionalization : the technical issue (2011 – 2015)

Once the topic of Black Carbon as evolved into a problem relevant to all parties, the question of adequate response level is raised. As it is admitted that the topic is relevant to the Arctic Council specifically, Arctic Council specific action is warranted. But that requires to accommodate space for it in the Council’s institutional structure : there is a need for institutional changes, but the extent of which yet has to be defined, between ad-hoc action to long-term planning.

The report to ministers of 2011 presents little novelty in the recommendations. Regarding the Task Force, Senior Arctic Officials recommend to : *“Decide to extend the timeframe for the work of the Task Force, allowing it to complete its mandate, and to report to Ministers at their next meeting in 2013.”* (Arctic Council 2011d, p.6). AMAP and ACAP’s work plans both mention continuing work on short-lived climate forcers, but nothing new is announced nor any recommendation advanced on the topic (Arctic Council 2011d). The response of the Ministers in the declaration is without surprise, as they *“request the Task Force and the AMAP expert group to continue their work [...] and provide a report to the next Ministerial meeting in 2013”* (Arctic Council 2011c, p.3) and *“decide to establish a Short-Lived Climate Forcer Contaminants project steering group”* (Arctic Council 2011c, p.3), exactly as suggested.

The 2011-2013 mandate starts smoothly, with a focus enlarged to methane and tropospheric ozone for the Task Force (Arctic Council 2011b). Now that the topic of short-lived climate forcers and the mandates of the various groups involved are well-defined, and that the timeline is more workable, the discussion seems to shift from political negotiations towards more technical considerations. There is a will to establish clear and strong coordination between the different Arctic Council groups working on the topic :

“The need for the three different AC groups to continue to cooperate closely was underlined by many delegations.” (Arctic Council 2011b, p.4)

“The importance of timing, and ensuring that the scientific report aligns with the timing of policy recommendations report was highlighted [...]” (Arctic Council 2011b, p.4)

“[ACAP’s chair] noted that it is important for the Arctic Council to coordinate all of the groups engaged in SLCF to avoid duplication of work.” (Arctic Council 2011b, p.6)

“SAOs called for close coordination of work between the task force, ACAP and AMAP.” (Haparanda 2012)

The technical sequence for coordination is explicit :

“[The TF’s co-chair] also outlined the intention to strengthen the collaboration of the Task Force (more policy oriented) with AMAP (scientific background) and ACAP (demonstration projects) in response to its renewed mandate.” (Arctic Council 2011b, p.4)

“The following sequencing was mentioned: 1) AMAP provides scientific evidence ; 2) task force provides recommendations for general AC policies and 3) ACAP implements or facilitates concrete actions of recommendations.” (Arctic Council 2011b, p.6)

While the work is advancing smoothly, and the Task Force is going quietly towards the completion of its mandate, the question of its heritage comes up, especially from the SAO Chair :

“[...] the issue needs to be kept high on the agenda also after the task force has finalized its current mandate.” (Arctic Council 2012a, p.4)

“The SAO Chair hoped to be able to present more concrete ideas for policy outcomes at next SAO meeting.” (Arctic Council 2012a, p.4)

This is largely motivated by the “global agenda”, a prominent question since the beginning of the Task Force, especially in terms of linkages and avoiding work duplication (see 3.4.), but which is used in this context as traction to decide on follow-ups to the Task Force mandate :

“The Arctic Council has played a central role in lifting the SLCF issue on the global agenda” (Arctic Council 2012a, p.4)

“The SLCF issue is an important one, where more scientific efforts are asked for, and the Arctic Council is in good position to take global leadership.” (Arctic Council 2013c, p.4)

“Keeping the issue in the agenda” seems to rely on two axes. First one, through the development of “*demonstration projects and concrete work under ACAP*” (Arctic Council 2011b, p.4) : this seems to take time, because if the relevant ACAP project group mentioned that it is working on “*several projects*” (Arctic Council 2011b, p.6; Arctic

Council 2013c, p.4) early on, there is no presentation of any project before the ministerial meeting, no discussion at SAOs' level of the characteristics of such projects. Yet, two of the projects mentioned in the work plan seems to indicate that they have started during the 2011-2013 mandate (Arctic Council 2013e). The other axis is the question of the Task Force follow up, discussed above. Interestingly however, the minutes from the SAO meetings do not mention any discussion of suggestions for the Report to Ministers prior to the ministerial itself. It is directly put forward by the Ministers, the highest level of decision-making :

“Ministers encouraged the Arctic Council to consider establishing a process at the Kiruna Ministerial meeting aiming for an instrument or other arrangements to enhance efforts to reduce emissions of black carbon from the Arctic States for review and appropriate decision at the next Ministerial meeting in 2015.” (Arctic Council 2013b, p.14)

The Task Force insists a lot on coordinated Arctic Council work on the topic in its recommendations, dedicate the half of its deliverable to that topic more specifically (TFSLCF 2013), but do not explicitly recommend any precise mechanisms like a task force or a working group, although it does suggest a coordinated framework (TFSLCF 2013). This is very in line with the evolution of the Arctic Council from “policy shaping” to “policy making” as underlined in the literature (ref??). The preoccupations under the Swedish chairmanship seems to be the impulse of this evolution.

At the ministerial meeting in Kiruna in 2013, ACAP presents two approved projects on top of the two deliverables from the Task Force (Arctic Council 2013e). The AMAP working group announces its updated assessment will be ready in 2015, coordinated with the results of “*the new Task Force on Black Carbon and Methane*” (Arctic Council 2013e, p.15). Under the Task Force chapter, the work from the Task Force on Short-Lived Climate Forcers is presented as a closure of what was started in 2009 (Arctic Council 2013e), while, under a different chapter, is established a “*Task Force on Black Carbon and Methane*” (Arctic Council 2013e, p.35) specifically. The report mentions that :

“SAOs have considered the appropriateness of moving forward on SLCP to bolster efforts to achieve substantial SLCP emissions reductions and encourage information sharing and recommend that the Ministers establish a Task Force to develop arrangements on actions to achieve enhanced reductions of black carbon and, in some cases, methane emissions in the

Arctic, and report at the next Arctic Council Ministerial meeting in 2015.” (Arctic Council 2013e, p.35, emphasis added)

This is presented as a Senior Arctic Officials decision while there was very little discussion of follow up reported in the minutes. Of course, the thoroughness of the SAO meetings’ minutes under the Swedish Chairmanship, systematically shorter than during other chairmanships, can be questioned. But this also seems to indicate a consensus : in which case, all SAOs at this point understand and recognize Short Lived Climate Forcers /Black Carbon and Methane issues as politically relevant and thus agree that action needs to be taken. The politicization process is fully complete. The Terms of Reference of the new Task Force are directly presented in the report, presenting no significant change in its composition (national representatives and Permanent Participants representatives) or functioning, a two years mandate, no added funds and, more interestingly, a rather long and broad list of tasks :

- “Discussion, identification, and consideration of further coordinated efforts on science or other work that could be required and consideration of funding from current scientific work.
- Discussion/consideration of a common vision for emissions reductions and consideration of benchmarks or targets.
- Discussion/consideration of development of national action plans or mitigation strategies shared with Arctic States and ideas for what could be included as part of these plans or strategies.
- National emission inventories of black carbon and how such efforts would relate to and possibly leverage similar emission inventory efforts under LRTAP.
- Identification and sharing and promoting information and best practices (such as those related to mitigation and technologies) available for relevant pollution sources in the Arctic States and the polar region.
- Promotion of collaborative measures with the private sector.
- Discussion/consideration of recommendations from the current SLCF TF.
- Other forums: The Task Force should propose ways in which the Arctic States could engage in appropriate fora and initiatives to achieve black carbon reductions that benefit the Arctic climate.
- An international cooperative arrangement.
- Other areas, as deemed appropriate by the Task Force” (Arctic Council 2013e, p.36)

The last item is particularly interesting, as the Task Force itself, an institution of the Arctic Council, is given (in vague terms) the power to determine its own mandate, in place of

leaving that defining process to the SAOs and Ministers who hold the political power within the Council. Everything happens as if the institutionalization process of the issue started : Black Carbon policy is to be taken care of *routinely*, and there is no longer a need to justify the act of taking care of it. The question as moved from “why?” to “how?”. Aside from the explicit last item, the vague wording of many others is telling of a loose mandate, a space within which action is meant to be negotiated : “*discussion*”, and especially “*consideration*”, are referring to very vague processes and do not imply any commitment. These guidelines show that the work is still understood as very state-focused :

“national action plans or mitigation strategies shared with Arctic States” (Arctic Council 2013e, p.36)

“National emission inventories” (Arctic Council 2013e, p.36)

“ways in which the Arctic States could engage in appropriate fora [...]” (Arctic Council 2013e, p.36, emphasis added)

But an interesting point is the insistence of common action, rather than simply coordinated : “*Discussion/consideration of a common vision for emissions reductions*”(Arctic Council 2013e, p.36), even a possibly binding one : “*An international cooperative arrangement*” (Arctic Council 2013e, p.36). However, this is only the SAOs suggestions, and what is decided by ministers is slightly different from the suggested Tasks in the Report:

“[The Ministers] Recognize that reduction of short-lived climate forcers, could slow Arctic and global climate change, and have positive effects on health, and welcome the report on short lived climate forcers, and support its recommendations including that national black carbon emission inventories for the Arctic should continue to be developed and reported as a matter of priority,

(...)

Decide to establish a Task Force to develop arrangements on actions to achieve enhanced black carbon and methane emission reductions in the Arctic, and report at the next Ministerial meeting in 2015” (Arctic Council 2013b, p.3)

The base idea is the same however : the the Task Force 2013-2015 is not actually working on Black Carbon, it’s working on the coming institutional changes made to accommodate long-term work on the issue within the Council. This, again, shows acceptance of Black Carbon as an issue which is relevant to the overall Arctic Council mandate and is here to stay. Interestingly it’s also the first time that short-lived climate pollutants are explicitly

mentioned in the chairmanship programme, which mentions it as part of a “comprehensive strategy to address climate change” (Arctic Council 2013a, p.2) : this sheds light on the Minister’s choice and echoes the SAOs’ suggestions. The Task Force mandate is effectively to shape such strategy.

The question of observers’ involvement appears for the first time at the beginning of the mandate, and it is obvious that this is an unclear path :

“Regarding the issue of observer engagement in the meetings of Arctic Council Task Forces, guidance from SAOs will follow.” (Arctic Council 2013d, p.5)

“During the discussion, various delegations encouraged the TFBCM to :

- invite accredited Observers to join in implementing the framework document; (...)” (Arctic Council 2014a, p.7)

This preoccupation is rather new, but it is in the continuity of this will to ensure that the Council’s Black Carbon and Methane work is very visible in the international arena, which was observed during the previous mandate. There is the idea to make the Arctic Council some sort of “ambassador” of the issue. In this mandate, this theme is still very much present, but instead of “simply” thrusting the issue on the global agenda, the Canadian chairmanship insists on forming a coherent, common block. Instead of a coalition of actors bringing forward the issue, it is one autonomous international actor, the Arctic Council, setting a precedent for action. This materializes throughout the mandate as the the expectation of a politically binding agreement on Black Carbon and Methane policy-making :

“During the discussion, various delegations encouraged the TFBCM to:

- work towards a politically binding agreement that could figure prominently in the upcoming Iqaluit Declaration; and

- continue pursuing follow-up mechanisms for the future.” (Arctic Council 2014a, p.7)

This is not restricted to connects to the greater focus of the Canadian chairmanship for the entirety of the Arctic Council itself, there is a political will of reinforcing the Council as an independent political player :

“The SAOC noted that, worldwide, the Arctic Council is perceived as the preeminent intergovernmental forum in the Arctic, a model for international governance, and a body that is moving towards policy-making and implementation.” (Arctic Council 2015a, p.4, emphasis added)

If this is the marked position of the SAO chair at least, it is nothing like a consensus however. This is visible towards the end of the mandate, while discussing the language of the Black Carbon and Methane Framework for Action specifically:

“[The Task Force’s co-chair] also indicated that following a concern raised during the SAO Executive Meeting, some structural changes were made to the Framework document to differentiate between what are considered national actions, and what is considered as Arctic Council work, as well as better reflecting the non-legally binding nature of the Framework, the respect for national priorities, and the collective focus of the work of the Expert Group.”
(Arctic Council 2015a, p.10)

It is interesting to note how, even when widening the Arctic Council’s Black Carbon policy to observer states, there is still a strong sense of the preeminence of the states on those issues. The above excerpt shows clearly the difficulty of presenting collective action while “*[respecting] national priorities*” (Arctic Council 2015a, p.10). These concerns are still coupled with the fear of duplication :

“SAOs provided advice and support focused on [...] the need to complement, not duplicate, work in existing fora;” (Arctic Council 2013d, p.5)

“In response to comments and questions from SAOs, Ms. Israelsson (ACAP) pointed out that there is no duplication between the inventory work of ACAP and the work of the Convention on Long-range Transboundary Air Pollution (LRTAP), due in part to close cooperation. Mr. Olsen (AMAP) pointed out that efforts to inventory black carbon and other pollutant emissions that are going on in different bodies are complementary.” (Arctic Council 2014b, p.5),

especially as AMAP cataloging activities become more extensive and ACAP develops multiple projects, depending on funding. Black Carbon is referred to as an explicit priority of the ACAP working group’s mandate : the issue is routinized a little more within the Council’s operations, and thus does not really need further discussion.

“[ACAP’s vice chair] covered the group’s work on reduction of black carbon from residential wood combustion, as well as: upcoming pilot projects; emissions inventories; demonstration projects for reducing black carbon emissions from diesel; policy options for black carbon reduction; financing options, and; a system for black carbon emissions impact management.”
(Arctic Council 2014b, p.8)

“Some projects are also waiting for the inauguration of the Project Support Instrument (PSI).”
(Arctic Council 2013d, p.7)

“Citing the priority that ACAP has placed on black carbon in recent years, the ACAP Vice-Chair pointed out that this is one of several projects focusing on the issue.” (Arctic Council 2014b, p.8)

Overall, the relevance of such scientific and technical work is never questioned, nor its continuation, quite the opposite even : “SAOC noted a desire to strengthen the associated language in the declaration.” (Arctic Council 2015a, p.11). Finally, a complete framework is developed for the issue, and the policy work is to be undertaken within an Expert Group : this is all laid out in the “Arctic Council Framework for Action on Black Carbon and Methane” presented at the 2015 ministerial meeting in Iqaluit (Arctic Council 2015c, p.).

In conclusion, after obtaining a general consensus on the need to allocate resources, the question is how will this response take form in the Arctic Council functioning. The norm of Black Carbon as a relevant issue is well established by 2011, but the boundaries of responsibilities and extent of work are still blurred, which, again, makes space for negotiations. Both the timeframe and mandate are renegotiated, and finally the Black Carbon issue evolves from an opportunity for ad-hoc action to a cross-cutting issue to be addressed under a single policy.

2.3 Routinization : collective action through the Framework and the Expert Group (2015 – 2017)

The institutional changes are cemented by the adoption of the Framework for Action in 2015. But beyond its role as keystone for the practical organization of sustained Arctic Council’s action, it also shows the new direction of the Council on the issue. The Council does not only want to be a relevant institution on the issue, it wants to be an institution that matters globally.

The Framework is a major turn because beyond the scientific and technical work, expected from the Arctic Council anyway, the *policy work* is routinized, that represents a step further. The framework is a twelve pages document split in four parts : the states resolutions, a description of the reporting process, guidance for states for said process, and finally the Terms of Reference for the Expert Group (Arctic Council 2015c). The Arctic states “commit to take leadership” (Arctic Council 2015c, p.118) in mitigation as a cohesive group, and this takes the form of the two fundamental engagements presented in the document : first, the iterative review process (described in annex A and carried by the newly established Expert Group) of inventories, on the basis of which the Expert

Group will recommend policy suggestions at every ministerial (Arctic Council 2015c). This is the main point of the declaration and such process is even extended to observers : *“Arctic States look forward to Arctic Council Observer States joining us and actively participating in the implementation of this Framework”* (Arctic Council 2015c, p.122). This is the materialization of the will of international relevance. Second cue in this direction is the commitment *“to adopt an ambitious, aspirational and quantitative collective goal on black carbon, and to consider additional goals, by the next Arctic Council Ministerial meeting in 2017”* (Arctic Council 2015c, p.119). This is reminding of high-level initiatives such as the UNFCCC for example (such initiative is even referenced in the introduction paragraph : *“Recognizing that work under this Arctic Council Framework supports and complements the goal of the United Nations Framework Convention on Climate Change”* (Arctic Council 2015c, p.118)) and testifies of a high level of political engagement. The goal itself is not part of the framework however, so at this point the desired breakthrough is still limited.

The strong insistence on collective action on the reporting process also shows the strong emphasis on states and state-level action in shaping the framework. Permanent Participants are mentioned in the beginning (*“We, the Arctic States (...) in collaboration with the Permanent Participants of the Arctic Council”* (Arctic Council 2015c, p.118)) but their potential role is not made further explicit, while observers states are however very actively called to action and participation. The majority of actions are coordinated through states, even including the mentioned scientific and technical work of AMAP and ACAP (Arctic Council 2015c). The first resolution is even *“to take leadership nationally”* (Arctic Council 2015c, p.119). And of course it’s not legally binding, even if *“high-level political commitment”* (Arctic Council 2015c, p.123).

Nevertheless, the tasks of *the Expert Group on Black Carbon and Methane* (EGBCM) are given *“inter alia”* (Arctic Council 2015c, p.129) : the Expert Group, as a body of the Arctic Council, is given its own decision power. Its decisions and outputs are still dependent on SAOs’ approval of course, as any other body of the Council, but it does give it larger leeway. Moreover, the framework leaves space for further action from AC in general :

“This process should inform and engage policy makers in all Arctic States and Arctic Council Observer States, including through the possibility of convening a higher-level policy maker

forum, and/or an open dialogue at the discretion of the Arctic Council Chair.” (Arctic Council 2015c, p.120)

“At its discretion, the Arctic Council Chair may convene a high level policy-maker forum among relevant decision makers to promote greater action and ambition, and/or an open dialogue among a broader group of relevant stakeholders including from the private sector and other states. Such an effort would complement and support the work of the Arctic Council.” (Arctic Council 2015c, p.123)

The point number 24 of the declaration confirms the implementation of the Framework and thus the establishment of the Expert Group, after linkages are made with existing initiatives in point 22 and several reminders of previous actions in point 23 (Arctic Council 2015b).

Interestingly, there is little about AMAP and ACAP in the Framework. In the SAOs report to Ministers however, it is made clear that short-lived climate forcers are still a priority of ACAP. This is worthy of notice as it is AMAP and ACAP, rather than the previous Task Forces, who did the preparatory work regarding inventory processes, through their various projects :

“The project has compiled information on wood burning stove and boiler technologies in the Arctic and analyzed existing approaches to emission inventories, reduction methodologies and mitigation instruments and measures in Canada, Denmark, Finland, Norway, Sweden and the United States.” (Arctic Council 2015c p.13)

“The project completed an emissions inventory of black carbon from diesel sources in the Murmansk Region of Russia” (Arctic Council 2015c, p.14)

“Two AMAP expert groups have completed assessments of the emission sources, transport of black carbon and tropospheric ozone and methane to the Arctic and their effects on Arctic climate.” (Arctic Council 2015c, p.18)

If states are now publishing inventories following standardized guidelines, implementation of the Framework seems to reduce the task of AMAP in particular. Yet the Work Plan does contain a Short-Lived Climate Pollutants project, although focusing on impacts only (rather than emissions) (Arctic Council 2015c). The sequence established in 2011 (see 2.2.) still holds, but with states providing a larger input. Black Carbon is also directly mentioned in the Chairmanship programme, in the context of climate change :
“The Arctic Council is addressing the impacts of climate change in the Arctic by targeting short-lived climate pollutants through reductions in black carbon and methane

emissions.” (Arctic Council 2015e, p.2) but there is little engagement. Aside from the quantitative goal that was announced in the Framework, the U.S. is not pushing forward for any kind of new policy or institutional change, nor is any other Member State for that matter.

In parallel, the Arctic Council chooses to (unofficially) present its Black Carbon work at the Conference of the Parties (COP) of the UNFCCC in December 2015.

“Iceland provided a summary of a side event held during the Twenty-First Meeting of the Conference of the Parties to the UN Framework Convention on Climate Change (COP21) in Paris in November – December 2015 that highlighted the AC’s work on BCM” (Arctic Council 2016a, p.4)

“Mr. Thorgeirsson highlighted the contributions that the AC could make in support of the Paris agreement: 1) continue to press for black carbon and methane mitigation” (Arctic Council 2016a, p.14)

It seems clear that the Arctic Council can / is looking to occupy a position of “expert” of the topic, which is very coherent with the theme of the Arctic Council as a prominent champion of the topic in the international arena. This is essentially an Icelandic proposal dating from the previous mandate, but which did not stir any controversy, and is reiterated at the COP 22 the year after (Arctic Council 2016b).

From the beginning of the 2015-2017 mandate, the Expert Group’s work is running smoothly and the obvious focus is on Observers’ inclusion :

“Several delegations made note of the importance of engaging Observers – not just at the project level, but also at the policy level – in this line of the Council’s work.” (Arctic Council 2015d, p.11)

“Many delegates spoke up about the importance of this work in terms of its contributions to [...] demonstrating collaborative work among the Arctic States and accredited Observer states.” (Arctic Council 2016a, p.15)

“In general, the SAOs encouraged Observer States to contribute to the Expert Group’s work.” (Arctic Council 2016b, p.7)

“A number of speakers called on Observer states to continue to engage and work with the Arctic States in reducing emissions of black carbon and methane.” (Arctic Council 2016b, p.8)

“Several States noted the work of the EGBCM as a positive example of Observer engagement in the Council’s work” (Juneau 2017)

And this is true for the chairmanship's general focus on Climate Change as well, it is actually a wider dynamic :

"Delegates presented several ideas in this vein, including:

- working more with Observers;" (Arctic Council 2015d, p.13)

"- The Arctic States are united in a desire to encourage Observers to work alongside them on these issues, for example by joining the CCAC, developing BC reports and working with the EGBCM." (Arctic Council 2016a, p.19)

This is an evolution of the Arctic Council's functioning process, and not the only one as an interesting decision is made regarding the scientific and technical work :

"Scientific/technical publications that do not contain policy recommendations do not require SAO approval." (Arctic Council 2015d, p.9)

On the other end it is visible that EGBCM representative stay prudent on the question of recommendations, and that states' prerogatives have to be protected :

"She presented the EGBCM's preliminary recommendations for reducing emissions from [...] which each State will be invited to adopt as appropriate in light of its own national circumstances." (Arctic Council 2016b, p.7)

Yet the recommendations are surprisingly well received:

"Regarding the preliminary recommendations, those SAOs that spoke expressed a desire to see them strengthened in the instance that any changes are made during the finalization process." (Arctic Council 2016b, p.7)

"Delegates generally expressed support for the methodology used by the EGBCM in developing the preliminary recommendations, and most seemed to think that the present recommendations are on the right track and – if anything – could be strengthened." (Arctic Council 2016b, p.8)

The focus on Observers' engagement on one side added to this remarkably positive attitude towards collective action seems to demonstrate a will to present a coherent block; the idea seems to have settled throughout the larger panel of SAOs. Logically, the quest for a quantitative goal begins. It is mentioned late (Arctic Council 2016b) but established very quickly (Arctic Council 2017d). Despite a demand from Russia for a language adjustment (Arctic Council 2017d), it is interesting to see that the mandate was carried without much difficulty. One point to underline is that the coordination of Black Carbon work between the three bodies is much less discussed (and this is also underlined by SAO themselves (Arctic Council 2016b)), yet the outputs seem to complement

seamlessly and the Ministerial meeting report confirms sustained cooperation : because it works well, it has become actually a non-topic. The inclusion of the Permanent Participant is still an unsettled issue however : *“AIA and SC expressed their desire to participate in the EGBCM.”* (Arctic Council 2016a, p.15), yet seems to receive little attention, or at least, no follow-up.

In conclusion, as the institutional basis is solidified, the Arctic Council solidifies itself as a single cohesive political block. The implementation of the Framework for Action on Black Carbon and Methane is the most evident cue, but not the only one. Moreover, this dynamic is quite clear at the level of Black Carbon policy, but seems to extend to the Arctic Council as a whole.

2.4 Expansion and loss of momentum? (2017 – present)

After the implementation of the Framework and the adoption of the quantitative goal, there is already a lot to build up upon. A logical follow up would be the production of a binding agreement under the auspices of the Council, however, if that happened before, it is far from being the main *modus operandi* of the Arctic Council and would require large political support. A decade after the first debate, there is less and less space for innovative engagement as more and more aspects of the Black Carbon policy are delineated and normalized. This situation may also affect political momentum.

The 2017 ministerial report brings little novelty : Black Carbon and Methane are still the priority of ACAP with a lot of projects, focused on the Russian area in particular. The idea is still *“to encourage national actions to reduce emissions”* (Arctic Council 2017c, p.8). It is also a point of focus of AMAP but the assessment’s update is scheduled over four years, similarly to the previous one. The EGBCM presents its Summary as well as a suggested goal :

“[...] the Expert Group proposes the following ambitious, aspirational, and quantitative collective goal on black carbon:

“Recognizing that several Arctic States have already drastically reduced emissions, Arctic States resolve to collectively further reduce their black carbon emissions by at least 25-33 percent below 2013 levels by 2025.

Moreover, recalling our commitment under the Framework to continually improve our black carbon inventories and projections, as well as to improve ambition and promote enhanced

action over time, we resolve to revisit this goal during the Finnish Chairmanship and future Chairmanships at the discretion of the Chair as merited.” (Arctic Council 2017c, p.87)

Black Carbon / Short-Lived Climate Forcers Emissions are mentioned several times in the Declaration :

“15. (...) welcome the advancements made to reduce pollutants, such as dioxins, furans, heavy metals, as well as black carbon, and encourage continued work on these issues at all levels” (Arctic Council 2017a, p.3-4)

“20. (...) recognize the potential to further reduce emissions of greenhouse gases and black carbon, to enhance energy efficiency and conservation,” (Arctic Council 2017a, p.4)

“23. (...) reiterate the importance of global action to reduce both greenhouse gases and short-lived climate pollutants to mitigate climate change,” (Arctic Council 2017a, p.5)

And finally adopts the goal, with rather weak language however :

“24. Adopt the first Pan-Arctic report on collective progress to reduce black carbon and methane emissions by the Arctic States and numerous Observer States and its recommendations, including an aspirational collective goal, acknowledge the importance of implementing those recommendations as nationally appropriate, recognizing that Arctic communities are entitled to develop in accordance with their needs and interests, note the importance of the continued work of the Expert Group on Black Carbon and Methane, recognize the gains that some industries have already made in reducing the emissions and intensity of greenhouse gases, including methane, and underscore the important role of industry in fostering innovative technologies to contribute to further reductions in greenhouse gases and short-lived climate pollutants,” (Arctic Council 2017a, p.5)

The 2017-2019 mandate starts quietly : the BC issue is brought up but it barely gets discussed. Reporting is ongoing smoothly (Arctic Council 2017e), as well as ACAP's work (Arctic Council 2018a). The presentations of Black Carbon work at the COPs are also maintained throughout the mandate, sustaining this “expert” position. The EGBCM starts presenting anticipated results mid-mandate. The emphasis in the reactions is clearly still on Observers' participation, but there is also insistence on concrete actions and emphasis on commitment to common goals:

“Norway called for concrete actions and was willing to look at the possibility to make the common aspirational goal more ambitious.” (Arctic Council 2018a, p.11)

“The Russian Federation emphasized their commitment to implement concrete projects on the ground” (Arctic Council 2018a, p.11)

“Finland highlighted the importance of the work of the EGBCM and the commitment to the common aspirational goal. Canada was pleased with the progress with implementing the

emission reduction goal and noted that Canada would be achieving a 26 per cent reduction.”

(Arctic Council 2018a, p.11)

The US on the other hand is “[*reviewing its internal policy*]” (Arctic Council 2018a, p.11).

At this point however it does not seem to directly affect Black Carbon work adversely.

There also seems to be persistent data problem especially with Russia :

“The future work of EGBCM should include more complete data to track the progress as well as a more systematic documentation and evaluation of policies and measures.” (Arctic Council 2019b, p.17)

Yet the overall initiative seems to yield results (even if the weight of the Arctic Council work in these results has yet to be assessed :

“A generally decreasing trend of methane emissions has been detected in the Arctic, however challenges remain.” (Arctic Council 2019b, p.17)

In spite of this, the chair is still far from enthusiastic as “*consensus is still lacking*” (Arctic Council 2019b, p.17). Among the “*three area of concerns*” (Arctic Council 2019b, p.17) underlined by the chair, one is a “*collective aspirational goal on black carbon reduction versus national actions;*” (Arctic Council 2019b, p.17). The political momentum for collective action that was observed in the previous mandate seems definitely lost. Even if there was no direct clashing of interests, this is proof of weakening attention for the issue. One may establish a parallel with the question of coordination discussed above : as the policy is working well, it ceases to be a valued topic? There is no longer a sense of urgency at least.

The ministerial report in this regard does not present nor suggest anything new for ACAP and its various projects, nor for AMAP and its upcoming 2021 updated assessment. The EGBCM however is expanding its priority areas :

“Priority areas for the reduction of black carbon identified in 2017 [...] are still relevant in 2019. [...] Two priority areas have been added to the report; agriculture and animal husbandry and management of wildfires.” (Arctic Council 2019d, p.77)

And some new linkages are established with the other groups PAME and EPPR, through internal communication and new projects such as “*Black Carbon Emissions from Shipping Activity in the Arctic and Technology Developments for their Reduction*” (Arctic Council 2019d, p.49-50) and “*EPPR Work on Wild Fires*” (Arctic Council 2019d, p.44-45). The extent of Black Carbon related work is expanding throughout the Council : it seems

institutionalized in the same way that large cross cutting themes such as climate change and ocean acidification are.

The declaration, or the “statements”, answering the ministerial was an obvious revealer of weakened cohesion of the Arctic Council in general. On the topic of Black Carbon more specifically, the report was basically approved as presented, in spite of its relations to climate change issues (see part 3.1.) :

“The meeting approved the report of the Expert Group on Black Carbon and Methane as a toolbox for future actions to curb emissions, noted with satisfaction that reported emissions of black carbon as well as methane are decreasing, acknowledged the active participation of many Observers in the work, and encouraged non-Arctic States to consider enhancing their domestic actions,” (Arctic Council 2019c, p.10)

The wording regarding the recommendations and work plan of the EGBCM however is pretty weak :

“Support was expressed for the continuation of the work of the Expert Group on Black Carbon and Methane to share best practices, identify and propose recommendations and review progress of reducing emissions of black carbon and methane, which improves air quality and health and limits Arctic warming,

Support was likewise expressed to enhanced national efforts and international cooperation to reduce black carbon and methane emissions, and the importance of concrete cooperative demonstration projects to reduce black carbon emissions in the Arctic was underlined,

The meeting noted with appreciation the scientific work under the Arctic Council on short-lived climate pollutants including socio-economic impacts associated with emission reductions,” (Arctic Council 2019c, p.10)

Moreover, this is only coming in the third part of the statement. The issue definitely lost momentum. It is still present in the chairmanship programme of Iceland however, under “*Climate and Green Energy Solutions*” (Arctic Council 2019a, p.6), but the commitment is also somewhat weak and seems to be focused on assessment: “*Building on the work of the Expert Group on Black Carbon and Methane, efforts to identify opportunities to reduce emissions of short-lived climate pollutants will continue.*” (Arctic Council 2019a, p.6).

Now it is hard to say with rigor how is the 2019-2020 mandate developing, as the Covid19 pandemic vastly affected both the functioning and reporting of the Arctic Council’s activity. The data is quite lackluster at the time of writing. From the first meeting in Hveragerdi (Arctic Council 2019e) however, there is a sense of business as usual with good reports from ACAP and AMAP (Arctic Council 2019e). What is interesting is a

potential new project with EPPR, showing the consistent expansion of the Black Carbon issue within the Council. Nevertheless, there still seems to be unsolved tensions regarding whether collective action should be emphasized, or if that would threatened states prerogatives. And of course, the inclusion of Observers' as a way to strengthen the credentials of the collective action :

“Several delegations underlined the growing importance of work addressing SLCPs and the need for coordinated global action. To that end, many highlighted the value of Observer contributions, and urged all Observer States to join the Arctic States in submitting their emission data in national reports to the EGBCM.” (Arctic Council 2019e, p.16)

In conclusion, the establishment of the Framework in 2015 set a political precedent hard to live up to. Indeed, after the quick establishment of a quantitative goal for 2017, there is much less of a push for collective and ambitious political action from that point on. Rather, there is a focus on expanding the institutional channels of Black Carbon cooperation within the Arctic Council. The focus is inward. Moreover, broader diplomatic movement also impede the development of ambitious policy when the subject is tightly entangled with climate change. There is no questioning the existence of the institutional components of the Black Carbon policy however : the consensus nature of the Arctic Council seems to make a step back more difficult than a blockage on the status quo, as the former would require institutional change (costly in resources and needing large political support) while the latter only requires dissent.

3 Framing the Issue : Narratives, Arguments and their Evolution

Framing is understood here as a discursive tool : by way of linking the issue at stake (Black Carbon/SCLF emissions) to wider themes and lexical fields, it carries with it justifications for action, and the limits of the fields within which the issue at stake is relevant. It tells you where to look and why (Allan & Haden 2017; Feldsman & Hart 2018; Mintrom & Luetjens 2017; Mossler et al. 2017; Tjernshaugen & Lee 2004; Rosenbloom 2018; Vanhala & Hestbaek 2016). It connects implicitly the issue with evaluative frameworks established prior, in other, parallel debates (Mintrom & Luetjens 2017; Rosenbloom 2018; Schroeder & Lovell 2018). It has to be agreed on by the participants to work however: all the participants need to be understanding the issue in roughly the same terms to be able to negotiate action, the framing(s) used are co-constructed (Mintrom & Luetjens 2017; Rosenbloom 2018; Scrase & Ockwell 2010; Vanhala & Hestbaek 2016; Whitmarsh et al. 2019). It's a discursive act, negotiating future political boundaries. In this case, it is interesting to note that there is two dimensions of framing : framings established within SAOs, within the AC itself for its internal actors (the "inside" : SAO meetings reports), and framings towards external decision makers and the general public (the "outside" : Ministerial meetings reports, declarations, Task Force and Working Group outputs). They are often closely interwoven of course, and the identified framings can also be thematically overlapping. Here the study tries to uncover which thematic framings were used in the treatment of Black Carbon emissions at the Arctic Council, and determine how they were used, what are their advantages and drawbacks. Four framings were identified : climate change, health and economic co-benefits, air pollution and political pioneering.

3.1 Black Carbon as a Climate Change issue

Throughout the years and from the beginning, it appears very clearly that Black Carbon emissions are discussed within a dominating frame : the climate change debate. It is a very strong framing as it is carried by a wider global momentum while being vague enough to fit a variety of interests : most of the Arctic Council's Black Carbon action hinges on climate arguments. But it can also be a risky bet as the relevance of climate change itself is negotiated in spaces that go way beyond the Council, thus making difficult for it to counter any crack in the consensus.

This preeminence in the debate is visible from the very beginning, the first time “*Non-CO2 drivers of climate change*” (Arctic Council 2007b, p.4, p.9) are mentioned and then presented to SAOs, it is within a thematic discussion of climate change (Arctic Council 2007b, Arctic Council 2008b), itself prompted by the general focus of the Norwegian chairmanship on the issue (Arctic Council 2006a). Mr. “*Brooks B. Yeager, Vice President, of the Climate Policy Center, Clean Air Cool Planet on behalf of Clean Air Task Force and Circumpolar Conservation Union (CCU)*” (Arctic Council 2008b, p.4) is the expert invited by AMAP to present the thing, which in itself is quite telling.

It is clearly a climate change issue from the start

“Reduction in these short-lived pollutants may slow arctic climate forcing relatively quickly” (Arctic Council 2008b, p.4)

“SAOs recognized that reduction of emissions of short-lived climate forcers could slow Arctic warming in the near-term” (Arctic Council 2008a, p.3)

The term “short lived climate forcers” appearing in the 2009 Tromsø declaration and the SAO report to Ministers :

“shorter-lived climate forcers such as black carbon, methane and tropospheric ozone precursors” (Arctic Council 2009e, p.2)

“the short lived climate forcers⁶ [...] ⁶ black carbon, methane and tropospheric ozone” (Arctic Council 2009d, p.6)

“SLCFs such as black carbon, methane and tropospheric ozone” (Arctic Council 2009d, p.8)

is adopted later as the prominent term until around 2015 (see 3.3.). The use of both “*Non drivers of CO2*” and “*SLCF*” in the ACAP work plan (Arctic Council 2009d, p.41-42) however seems to indicate some sort of confusion given during the previous mandate many terms are used interchangeably (aside from direct mentions of “black carbon”, “methane” and “tropospheric ozone” (Arctic Council 2008a, Arctic Council 2008b)) : at the Svolvær meeting in 2008, “*Non CO2 drivers of climate change*” are mentioned twice, “*short-lived pollutants*” twice, “*pollutants*” once, “*Non-CO2 drivers*” three times and “*short lived climate agents*” once (Arctic Council 2008b, p.4). At the Kautokeino in 2008 as well, one sees “*non-CO2 drivers of climate change*” mentioned four times, “*non-CO2 drivers of Arctic climate change*” once, “*short lived climate forcers*” twice, “*non-CO2 drivers*” once and “*non-CO2 forcers*” once (Arctic Council 2008a, P.3-4). Finally, at the Copenhagen SAO

meeting in January 2009 one reads “*non-CO2 drivers of climate change*” twice and “*SLCF*” twice (Arctic Council 2009c, p.3). The AMAP preliminary report uses “*Short-lived pollutants*” (AMAP 2008, p.1), however a majority used in the SAO meetings relates to the climate change lexicon, as showed above. All of them actually, but the use of “drivers” and “forcers” relates more directly to the process of climate change, rather than “pollution” of the climate or of the air air, more diffuse. This definition problem isn’t really cleared until the 2011 Task Force report is published, (after the concise AMAP definition two years prior (AMAP 2009)) :

“The term —short-lived climate forcers|| (SLCFs) often is used to describe a subset of greenhouse gases (GHGs) and aerosols that alter Earth’s energy balance. Compared to long-lived GHGs such as carbon dioxide (CO₂), SLCFs remain in the atmosphere for much shorter time periods. SLCFs include particulate aerosols such as black carbon (BC), nitrates, and sulphates; gases formed from precursor emissions such as tropospheric ozone; and directly emitted GHGs such as methane¹. In the Arctic Council context, SLCFs mainly include BC, ozone, and methane.” (TF SLCF 2011a, p.14)

The main advantage of the climate change framing at this point is that it is an issue for which a very large consensus already exists. Many governments and other political entities have already agreed, pledged, committed resources and policies to it, and it is widely accepted as an issue of global concern (Khan 2016; Mintrom & Luetjens 2017; Preston 2014; Shapovalova 2016). Black Carbon is politicized as a proxy issue, it’s an added dimension of something larger that was part of the agenda anyway, rather than an entire novelty.

This position makes sense in a global context where climate change is an issue that is gaining a lot of attention, and fast :

“The important role of the Arctic Council to investigate Arctic specific issues that can inform the international climate process, such as its work on non-CO₂ drivers, the cryosphere, Arctic observations, and adaptation, was noted” (Arctic Council 2008b, p.4)

“AMAP requested SAO approval to take a number of immediate outreach actions, including to take a common Arctic Council approach to: 1) initiating a discussion within UNECE LRTAP Convention, 2) requesting an IMO agenda item to discuss BC, 3) hosting a AC side-event at UNFCCC CoP14 and CoP15, and 4) engagement of UNEP.” (Arctic Council 2008a, p.3)

“It was noted that the AMAP work on non-CO₂ drivers of climate change can complement the UNECE LRTAP Convention process” (Arctic Council 2008a, p.3)

“[SAOs] Recall that the Arctic Climate Impact Assessment (ACIA) and the Intergovernmental Panel on Climate Change (IPCC) have reconfirmed the importance of climate change in the Arctic, both regionally and globally.” (Arctic Council 2009d, p.9)

“[SAOs suggest to Ministers to] Decide to report to the UN CoP15 on the latest results of the Arctic Council’s climate change related work,” (Arctic Council 2009d, p.9)

“[SAOs suggest to Ministers to] Establish a task force on short-lived climate forcers (...) inviting the active participation of all members of the Arctic Council (...) to develop recommendations for further immediate national and international actions, including joint proposals for the SAOs to consider for submission to relevant international bodies” (Arctic Council 2009d, p.10)

Ultimately, AMAP includes its Short-Lived Climate Forcers assessment in a larger report on *“Selected Climate Issues of Concern”* (AMAP 2009, p.1), which is framing Black Carbon emissions exclusively in terms of climate change and Arctic warming. Because such emissions are understood a dimension of climate change and not an issue of itself, it is not supposed to be a self standing policy, and this is reminded often:

“it was stressed that work on non-CO2 drivers should not detract attention from the international focus on reductions of CO2.” (Arctic Council 2008b, p.4)

“while reductions of CO2 remain paramount, short-lived climate forcers also need to be dealt with.” (Arctic Council 2008a, p.3)

“Carbon dioxide (CO₂) is the main driver of global climate change, but black carbon (or soot), ozone, and methane may have a combined effect comparable to those of carbon dioxide, both in the Arctic and globally.” (AMAP 2009, p.7)

“Therefore, while reductions in carbon dioxide emissions remain essential for long-term global (and Arctic) climate stabilization, reducing emissions of short-lived climate forcers has the potential to slow warming in the near-term.” (AMAP 2009, p.7)

But this context of global context is also what prompts the very idea of an Arctic Council policy : this seems to be a driving force behind the quick agreement of the Task Force creation, a policy oriented move contrasting with the topic being originally pushed by AMAP which is a body focusing on monitoring and assessment.

“AMAP requested SAO approval to take a number of immediate outreach actions, including to take a common Arctic Council approach to: 1) initiating a discussion within UNECE LRTAP Convention, 2) requesting an IMO agenda item to discuss BC, 3) hosting a AC side-event at UNFCCC CoP14 and CoP15, and 4) engagement of UNEP.” (Arctic Council 2008a, p.3)

The topic gains momentum under chairmanships focused on climate change, where the framing is maintained : during the Danish mandate, the Short-Lived Climate Forcers issue is discussed under “*climate change*” thematic discussions (Arctic Council 2009b, Arctic Council 2010b). The same focus on Short-Lived Climate Forcers mitigation as “quick climate action” is found, it is very present in the Task Force report for example:

“The analysis will help to inform the TF about the potential for increases in key emission sectors and regions and the potential Arctic climate benefits of emission reductions.” (Arctic Council 2010b, p.7)

“Although CO₂ emissions are the dominant factor contributing to observed and projected rates of Arctic climate change, addressing SLCFs such as BC, methane, and ozone offers unique opportunities to slow Arctic warming in the near term.” (TF SLCF 2011a, p.14)

The Section 2 is entirely dedicated to “*Climate Change and Health Effects: Setting the Context*” (Arctic Council 2011a, p.27) : ten pages to climate change, two to health effects. Such framing is less underlined in the policy recommendations report however (TF SLCF 2011b), but it is still present, as well as the focus on near-term action :

“Carbon dioxide emissions are the dominant factor contributing to observed and projected rates of Arctic climate change. However, addressing short-lived climate forcers, such as black carbon, methane, and ozone, offers unique opportunities to slow Arctic warming in the near term.” (TF SLCF 2011b, p.3)

“Although CO₂ emissions are the dominant factor contributing to observed and projected rates of Arctic climate change, addressing SLCFs offers unique opportunities to slow Arctic warming in the near term.” (TF SLCF 2011b, p.34)

One can note a weaker language in this report however: “*Scientific uncertainty remains about the magnitude and nature of the climate impact of black carbon emissions globally*” (TF SLCF 2011b, p.3).

Quite naturally, Black Carbon (and others) work keeps being replaced in international climate action context :

[...] the US is taking the effects of BC on the Arctic cryosphere very seriously and is exploring the potential for near term benefits for the Arctic as UNFCCC discussions proceed.” (Arctic Council 2010b, p.8, emphasis added)

“[A focus on Black Carbon offers] the greatest opportunity for an Arctic Council contribution to the global climate debate.” (Arctic Council 2010a, p.4)

Such context contributes to define the Black Carbon focus. Under the Swedish chairmanship, replacing Black Carbon work in the international context is actually evolving into a priority :

“[The Task Force co-chair] referred to current work on short lived climate forcers in other international fora, such as UNEP, IMO, CLRTAP and IPCC, and the importance of relating the work of the Task Force to the dynamics of these activities.” (Arctic Council 2011b, p.4)

During this chairmanship however, the discussion is more about “*global process on SLCF*” (Arctic Council 2011b, p.4), and not directly about climate change anymore (see part 3.4.). Even if the work is still presented under “climate change” thematic discussions it is within a wider “*climate, environment and biodiversity*” theme (Arctic Council 2011b, p.2; Arctic Council 2012a, ; Arctic Council 2012b, p.2; Arctic Council 2013c, p.3). There is less focus on linking it with wider themes overall : the Short-Lived Climate Forcers are talked about as an issue of their own : “*the SLCF issue on the global agenda*” (Arctic Council 2012a, p.4). The produce of the Task Force however, intended for wider audiences (both policy-makers and the general public), is very clearly climate change oriented : “*Recommendations to Reduce Black Carbon and Methane Emissions to Slow Arctic Climate Change*” (Arctic Council 2013c, p.4; TF SLCF 2013, p.1) . It is even the first recommendation and key context, and a reminder of this priority on Carbon Dioxide, something that had not been stressed in a few years:

“Immediate reductions in black carbon and methane emissions can slow Arctic warming over the next few decades. Simultaneously, reducing emissions of carbon dioxide (CO₂)—the largest contributor to global and Arctic climate change—is the most important means of preventing dangerous levels of climate change over the long term.” (TF SLCF 2013, p.2)

There seems to be a discrepancy between Task Force itself, and Swedish chairmanship where climate change is less of a priority. “*SLCF*” is the favoured language of the SAO reports to Ministers as well however (see Arctic Council 2011d, Arctic Council 2013e). And there is still confident justification for sustained action, confidence in the climate benefits:

“[...] addressing Short-Lived Climate Pollutants (SLCP) offers the opportunity for substantial health benefits for Northerners as well as near-term climate benefits.” (Arctic Council 2013e, p.35)

“[...] reducing emissions of black carbon, methane and tropospheric ozone [allows] to protect climate and public health.” (Arctic Council 2013e, p35)

“There is confidence that actions recommended here could generate climate and health benefits for the Arctic—even if some are currently unquantifiable—despite a number of known uncertainties.” (TF SLCF 2013, p.18)

Logically, the climate change framing is less used between SAOs as time goes on as long there is no crisis : when the framing is agreed upon it doesn't need constant renegotiation at the same level. There is no need to insist on the framing to the SAOs at this point because the climate change frame is already carried by AC working bodies themselves : it has been routinized and does not necessitate re-politicization of the issue. So much so that the Task Force suggests the Arctic Council itself to promote this framing “outside” :

“The Arctic Council has a role to play in raising awareness about the effects of short-lived climate forcers on the Arctic climate and, more broadly, about the need to avoid further Arctic climate change with cascading global effects.” (TF SLCF 2013, p.17)

It is even mentioned in the Declaration this time, so by the ministers themselves which demonstrates high-level political commitment to the idea :

“[The ministers] Recognize that reduction of short-lived climate forcers, could slow Arctic and global climate change [...]” (Arctic Council 2013b, p.3)

This definitely shows the strength of the climate change framing. This outreach idea fuels the next mandate, and logically there is no need to discuss it between SAOs. In contrast, almost every single Black Carbon related output (to the exception of two ACAP projects (see Arctic Council 2015c, p.48) is justified by climate change or Arctic warming mitigation in the Ministerial report, directed to external audiences :

“Benefits to people living in the Arctic :

[...] - Short-lived climate pollutants disproportionately affect warming in the Arctic

- TFBCM work will lead to benefits for the climate [...]” (Arctic Council 2015, p.8)

“As short-lived climate pollutants, disproportionately impact the Arctic, their reduction will lead to benefits for the climate [...]” (Arctic Council 2015c, p.8)

“The recommended actions may benefit Arctic people through [...] climate change mitigation.” (Arctic Council 2015c, p.13)

“New AMAP assessments on black carbon, ozone and methane provide a scientific basis for decision-making to reduce emissions to avoid Arctic warming.” (Arctic Council 2015c, p.16)

Added to that, AMAP Summary Report on Black Carbon is included in the larger “Arctic Climate Issue” – based on two technical reports (AMAP 2015). Climate change is still a

potent framing, in a moving international context : preparations for the COP21 Paris agreements are underway, and this shows :

“The Framework also acknowledges that reducing anthropogenic carbon dioxide emissions remains the most important challenge to address global and Arctic climate change. Arctic States view the Framework as supporting and complementing the goals of the United Nations Framework Convention on Climate Change (UNFCCC).” (Arctic Council 2015c, p.9)

Now, in the Framework itself, the political justification given is very predominantly climate change / Arctic warming, with the only addition of a small mention of “*health and economic benefits*” :

“Recognizing that the Arctic is warming considerably faster than other regions of the globe, leading to fundamental changes to the environment and human living conditions in both the Arctic and around the world;

Acknowledging that black carbon and methane emitted within and beyond the borders of Arctic states have substantial impact on the Arctic and that their reductions lead to near-term climate, health and economic benefits in the Arctic, contributing to global efforts to limit the increase in global average temperature to below 2 degrees Celsius above pre-industrial levels;

Recognizing that work under this Arctic Council Framework supports and complements the goal of the United Nations Framework Convention on Climate Change and that reducing anthropogenic carbon dioxide emissions remains the most important challenge to address global and Arctic climate change;” (Arctic Council 2015c, p.118)

“All of these efforts aim to further spur continuous improvements for climate and health in the Arctic.” (Arctic Council 2015c, p.119)

It is also part of the programme especially for the scientific and outreach side (Arctic Council 2015c, p.121), and one finds such justification in the Declaration as well (Arctic Council 2015b, p.3).

Climate change being a priority issue of the US chairmanship, the topic is gaining momentum again, including in internal discussion : this mirrors what was seen earlier during the Norwegian and Danish chairmanships. It’s the return of “climate change” thematic discussions (Arctic Council 2015d, p.11; Arctic Council 2016a, p.14), and Black Carbon is discussed first and foremost in this context :

“The EGBCM Chair spoke on the role of BCM in climate change both worldwide and in the Arctic specifically.” (Arctic Council 2016a, p.15)

“Many delegates spoke up about the importance of this work in terms of its contributions to slowing climate change,” (Arctic Council 2016a, p.15)

The wider context is also giving renewed strength to the climate change framing, as the US Chairmanship opens in parallel to the COP21 of the UNFCCC and the landmark Paris Agreements, and Arctic Council is very clearly surfing the wave on its Black Carbon and Methane surfboard :

“The Kingdom of Denmark stressed the importance of climate and energy as an overarching theme, in particular because of ties to the COP 21 and the possibilities of engaging observers.” (Arctic Council 2015a, p.6)

“Iceland provided a summary of a side event held during the Twenty-First Meeting of the Conference of the Parties to the UN Framework Convention on Climate Change (COP21) in Paris in November – December 2015 that highlighted the AC’s work on BCM.” (Arctic Council 2016a, p.4)

“After providing a summary of the agreement itself, Mr. Thorgeirsson highlighted the contributions that the AC could make in support of the Paris agreement: 1) continue to press for black carbon and methane mitigation” (Arctic Council 2016a, p.14)

“The Chair of the EGBCM applauded the signing of the Paris climate agreement, and described the mechanisms by which methane and black carbon emissions affect climate in the Arctic and elsewhere.” (Arctic Council 2016b, p.7)

“The SAO from the U.S. briefly described the planned panel “Climate change on fast forward,” which will take place on 11 November during the COP22 meeting in Marrakech. It will partly focus on the Arctic Council’s work on black carbon and methane.” (Arctic Council 2016b, p.8)

This is even noticeable in the 2017 Fairbanks Declaration from Ministers :

“Noting the entry into force of the Paris Agreement on climate change and its implementation, and reiterating the need for global action to reduce both long-lived greenhouse gases and short-lived climate pollutants,” (Arctic Council 2017a, p.1)

“[The Ministers] Note again that the Arctic is warming at more than twice the rate of the global average, note with concern that the pace and scale of continuing Arctic warming will depend on future emissions of greenhouse gases and short-lived climate pollutants, reiterate the importance of global action to reduce both greenhouse gases and short-lived climate pollutants to mitigate climate change” (Arctic Council 2017a, p.5)

So far, this framework is very strong and benefits from outer political forces : it seems like a very good strategic decision. In spite of this strength however, it is not without its drawbacks. The main problem is that the perceived relevance of the issue hinges entirely on a consensus which is negotiated way outside of the space where Black Carbon work is

negotiated. If there is a disruption in this wider space, what arguments are Black Carbon mitigation proponents left with if it is understood as a proxy issue only? Moreover, the wide political momentum for climate change issues relies on a strong politicization of the issue, and the danger of it is a break of the consensus for wider alignment reasons (Feldman & Hart 2018; Mintrom & Luetjens 2017; Mossler et al. 2017). That is exactly what happened during the Finnish chairmanship, confronted to the US administration of President Trump. The international context that carried this framing so strongly so far is also the reason why its strength disappears almost overnight. Under this chairmanship, the only discussion of Black Carbon work in a climate change context is the COP24 presentation :

“Henna Haapala, Ministerial Adviser at the Finnish Ministry of the Environment, briefed delegates on the Arctic Council’s side event coordinated by Finland on “Curbing black carbon emissions for health and Arctic climate benefits” that was held on 10 December 2018 at the UNFCCC COP24 in Katowice, Poland.” (Arctic Council 2019b, p.19)

And there is no discussion of climate change overall, in spite of climate change being an important chairmanship focus :

“Addressing climate change in the Arctic is rooted in sound science and traditional and local knowledge. The conclusions of the *Arctic Climate Impact Assessment* (2004) have been largely confirmed by local environmental observations. Both Arctic communities and natural ecosystems are affected. The melting of ice and snow in the Arctic amplifies the global impacts of climate change.

Putting into practice the commitments of the Paris Climate Agreement will be the most important contribution from the Member States in addressing climate change. At the same time, the implementation of the Arctic Council’s “*Framework for Action on Enhanced Black Carbon and Methane Emissions Reduction*” (2015) will provide a much needed additional measure. Finland encourages projects and actions aimed at reducing emissions, facilitating adaptation, and raising awareness of climate change.” (Arctic Council 2017b, p.10)

In the ministerial report, AMAP insists on using “*climate forcers*” (Arctic Council 2019d, p.27-28) in its work plan, and the Expert Group persists with its use of the climate change framing :

“Based on accumulating evidence on the contribution of black carbon and methane to the warming of the Arctic” (Arctic Council 2019d, p.76)

“As emissions of black carbon and methane outside of the Arctic also contribute to both Arctic and global warming” (Arctic Council 2019d, p.76)

On the other hand, the US dissent is made very clear : *“The United States does not associate itself with the collective aspirational goal”* (Arctic Council 2019d, p.76). It is of course most visible in the ministerial “Statements” (Arctic Council 2019c): all the parts about Black Carbon are under climate change and thus in the Chair Statement, and not signed by the Ministers (Arctic Council 2019c, p.10-11). It is even explicitly acknowledged by Finland’s SAO in the Chair’s address of the ministerial report : *“It should be acknowledged that addressing the impacts of climate change in the Arctic has been challenging [...]”* (Arctic Council 2019d, p.13). Interestingly however, Black Carbon work kept going during the chairmanship, and was even quite extensively discussed (Arctic Council 2017e, p.8, p.11; Arctic Council 2018a, p.7; Arctic Council 2018b, p.16). It is also the case under the Icelandic chairmanship, under the more neutral, polite term of “Arctic change”:

“Building on the work of the Expert Group on Black Carbon and Methane, efforts to identify opportunities to reduce emissions of short-lived climate pollutants will continue. Progress in this area could help slow the current pace of change in the Arctic while work is underway to reduce longer-term impacts.” (Arctic Council 2019a, p.6)

The Black Carbon issue is given space under thematic discussion on *“People and Communities in the Arctic”* (Arctic Council 2019e, p.9), interestingly. There is no use of climate change framing, which is not really surprising, given the context, but which is still in discrepancy with the fact that Iceland has been very involved in Black Carbon outreach to the COPs from the start (see 2.3. and above). Once again, we are talking about Black Carbon without talking about climate change : is it a lasting discursive turn? It seems that the climate change framing allowed to give the topic the necessary impulse to reach the level of institutionalization it has reached now, but precisely because it is institutionalized the issue is more flexible in terms of discourses, can accommodate more narratives without losing too much of its allocated resources .

In conclusion, climate change has clearly been a dominant framework for most of the years during which the Arctic Council discussed Black Carbon. It is a useful way of framing Black Carbon emissions, first of all because the climate change thematic area is quite wide, but also because it is a very present issue in the larger political arena those later years. The international movement and many resources provide support and discursive space for initiatives. The problem is that this heavy politicization means that

there will be an “against” side, and if the consensus falls apart the justification for action lacks stability, as it hinges on a debate much larger than the Council itself.

3.2 Health and other co-benefits : “no-regret” policy or Public Relation tool?

Even if one powerful framing can quickly allow for consensus, it is in the contestation of different framings that space opens up for further negotiations, allowing to renegotiate prioritisation and resource allocation as well as to appeal to wider range of interests (Vanhala & Hestbaek 2016). It allows to keep doors open. The discussions around health and later economic benefits of Black Carbon mitigation illustrates that well, as the frame is never invested in depth but rather used as a solidifying argument for quick actions. Moreover, what works for the policy-makers doesn’t always work for the public (Howarth 2017), but also the other way around : the use of the health framing seems to be directed at rallying the general public to the cause much more than to weigh in internal debates .

In the case of Black Carbon, one can see the mentions of health benefits appear next to the climate ones very early on:

“Reduction in these short-lived pollutants [...] will also benefit health.” (Arctic Council 2008b, p.4)

“They welcomed AMAP’s work on non-CO2 drivers of climate change that highlights the link between climate change, air pollution and health.” (Arctic Council 2008a, p.3)

Now, did this argument really matter for the development of the topic within the Arctic Council (or did it matter as much as other framings such as climate change)? It is hard to say, because on the one hand, the idea of a “no regrets” policy, developed especially in policy recommendations, is put forward several times:

“Taking early action is considered to have “no regrets” because of health and other co-benefits of mitigation.” (Arctic Council 2010a, p.4)

“Controls on black carbon sources that reduce human exposure to particulate pollution improve health, and in that regard many measures can be considered no regrets” (TF SLCF 2011b, p.4)

This is clearly emphasized to appeal to high level decision-makers. But on the other hand, it is not even mentioned in the first AMAP assessment (AMAP 2009), and health benefits are merely “noted” in the general SAOs work:

“The human health co-benefits for BC reductions were noted and there will be a chapter on this in the TF report.” (Arctic Council 2010b, p.8)

“The TF was requested to take due account of the comments , including [...] the interest in the human health and shipping aspects of the work” (Arctic Council 2010b, p.8)

“It is important to keep in mind also the co-benefits of GHG and air pollutant reductions, (health benefits and improved energy efficiency).” (Arctic Council 2010b, p.8)

It looks like the health co-benefits of mitigation are considered a valuable arguments by SAOs, at least for outreach, but they do not actually use it to convince each others, or open negotiations space for larger actions or mandates. It is not mentioned as a motive in the first Declarations either (Arctic Council 2009e, Arctic Council 2011c) but from 2011 on, it is put forward to consideration by SAOs and the Task Force :

“the Task Force recommends continued focus on [...] potential health benefits.” (Arctic Council 2011d, p.6)

“Measures aimed at decreasing black carbon emissions have positive health effects for any community exposed to the particulate matter emissions containing black carbon. The Task Force therefore wishes to stress that many early mitigation measures can be considered “no regrets” because of health co-benefits, including reductions in premature deaths and avoided health care costs, despite remaining uncertainty in quantifying the Arctic climate benefits.” (TF SLCF 2011b, p.3)

The Section 2 of the first 2011 TF report is entirely dedicated to *“Climate Change and Health Effects: Setting the Context”* (TF SLCF 2011a, p.27). Aside from the ten pages about climate change, there are two full ones discussing health, which is of importance. In spite of taking some space however, the language is very measured, especially in the technical report :

“the scientific community has focused increasingly on trying to identify the health impacts of particular PM2.5 constituents.” (TF SLCF 2011a, p.36, emphasis added)

“However, in general, the evidence from studies looking at the health effects of specific PM2.5 constituents is not yet sufficient to establish consistent or robust patterns that would allow differentiation of those constituents or sources that are more closely related to specific health outcomes” (TF SLCF 2011a, p.36-37)

“There is a small but emerging body of literature” (TF SLCF 2011a, p.37)

This prudence is maintained afterwards : *“Reduced black carbon and methane emissions will also confer health benefits in the Arctic, but such effects are difficult to quantify”* (Arctic Council 2012a, p.4). It seems that this framing is not much used simply because the scientific justification is a bit too light. During the beginnings of the Arctic Council’s Black Carbon work, this is not specific to health effects however : every aspects of it had

limited scientific backing, and that's very much one of the reasons the Task Force and the tripartite system was established, and established so fast (see 2.1.). What is interesting to underline here is that there is no special push to research such linkages in depth, while the Arctic Council was very focused on scientific research and assessment of Black Carbon climate effects in the first years of the programme. There could have been similar programmes for health effects, but it didn't happen. No partnership with the Sustainable Development Working Group (SDWG) was ever considered either. Everything happens as if health is considered a relevant argument, but not a priority

The first explicitly health-related programme on Black Carbon of the Council is actually launched in 2015, and brought about by Permanent Participants. This is interesting, because the only time Indigenous Peoples involvement/interests are emphasized in the 2011 recommendations report, they are put in relation to the the health question :

“A key consideration for the Arctic Council in future measures should be the impact on and benefits to all Arctic communities, including indigenous peoples and others affected by exposure to black carbon particulate pollution.” (TF SLCF 2011b, p.4)

Another interesting fact : it seems that it is the Permanent Participants who are bringing the health framing forward in discussions, especially in recent years :

“ACAP work in Saami settlement will reduce black carbon emissions and human health risk in indigenous communities” (Arctic Council 2015c, p.46)

“AIA and co-leads are working on a project to develop community-level actions to mitigate and assess releases and exposure to black carbon” (Arctic Council 2015c, p.46)

“The Indigenous Community Based Black Carbon Assessment Tools will focus on assessing and developing community-level tools for black carbon reduction in indigenous communities, to mitigate health and environmental effects from black carbon sources. The project is expected to take place in Alaskan, Russian and Sami communities. The proposed project will be submitted for ACAP approval (lead: AIA).” (Arctic Council 2015c, p.48)

“One PP praised the work of the EGBCM, and noted that BCM emissions are not solely a climate issue, but a health issue as well.” (Arctic Council 2016b, p.7)

“AIA pointed to the health threat caused by BC emissions and stressed the engagement of local communities in enhancing mitigation efforts.” (Arctic Council 2017d, p.17)

“The Community-based black carbon and public health assessment project seeks to assess local sources of black carbon emissions from a number of Alaskan, Saami, and Russian

villages, characterizes risks to public health, and explores mitigation options.” (Arctic Council 2017c, p.10)

“Project Title/activity: Community-based black carbon and public health assessment project
Lead(s): Arctic States and PPs – AIA, Russian Federation, Sweden, U.S.” (Arctic Council 2017c, p.19)

Is it because the climate change framing is definitely a contributor of shaping the policy around state participation and national responsibility (given these are the terms around which the global climate debate is built (Blue 2016; Schroeder 2010; Toussaint 2018))? Meanwhile, the health framing can possibly act as a “backdoor” for Permanent Participants (and other actors’) inclusion, a negotiation space where it is easier for them to put forward their interests. This seems consistent with part 2.2., and seems to even be adopted by some Permanent Participants themselves as a conscious strategy :

“One PP also encouraged all PPs to participate in ACAP work where possible, and asked whether resources could be found to support consistent participation of a PP expert on the ACAP Expert Group on Short Lived Climate Pollutants and in the Indigenous Peoples Contaminants Action Program (IPCAP).” (Arctic Council 2016b, p.11)

“AIA pointed out to other PPs the possibility to apply for PSI funding for projects, including those outside of Russia, and encouraged them to increase their engagement with ACAP’s work.” (Arctic Council 2017d, p.15)

In spite of the very prudent beginning, from 2013 on the health impacts are insisted on a lot, both by SAOs :

“The supporting technical report will contain [...] a discussion on the potential health and climate benefits of additional mitigation.” (Arctic Council 2013e, p.35)

“[...] work has been proceeding under the Arctic Council to investigate opportunities for reducing emissions of black carbon, methane and tropospheric ozone in order to protect climate and public health.” (Arctic Council 2013e, p.35)

“There is increasing awareness that addressing Short-Lived Climate Pollutants (SLCP) offers the opportunity for substantial health benefits for Northerners as well as near-term climate benefits.” (Arctic Council 2013e, p.35)

And by the Task Force in a stronger, more direct language :

“Context and Key Message 3 : Reducing emissions of methane and particularly black carbon results in significant health benefits.” (TF SLCP 2013, p.5, emphasis added)

“In addition to their climate effects, both black carbon and methane contribute to adverse health effects, and therefore reducing these emissions has the potential to generate health benefits.” (TF SLCF 2013, p.5)

“The growing body of evidence includes studies that link exposure to black carbon with adverse health effects” (TF SLCF 2013, p.5)

To finally be included directly in the declaration : *“[The Ministers] Recognize that reduction of short-lived climate forcers, (...) and have positive effects on health”* (Arctic Council 2013b, p.3). By 2015, health co-benefits are outright “important” :

“Benefits to people living in the Arctic :

[...]

- TFBCM work will lead to benefits for the climate with important co-benefits for human health and local air quality” (Arctic Council 2015c, p.8, emphasis added)

“As short-lived climate pollutants, disproportionately impact the Arctic, their reduction will lead to benefits for the climate with important co-benefits for human health and air quality in the Arctic.” (Arctic Council 2015c, p.8, emphasis added)

But they play a weak role overall; they are never mentioned on their own in the framework for example, which does not even dwell on that at all.

“Acknowledging that black carbon and methane emitted within and beyond the borders of Arctic states have substantial impact on the Arctic and that their reductions lead to near-term climate, health and economic benefits in the Arctic” (Arctic Council 2015c, p.118)

“All of these efforts aim to further spur continuous improvements for climate and health in the Arctic” (Arctic Council 2015c, p.119)

“Arctic States support a four-year cycle of periodic scientific reporting, [...] with a focus on the impacts of anthropogenic emissions on Arctic climate and public health” (Arctic Council 2015c, p.121)

“Arctic States commit to raise awareness of the impact of black carbon and methane emissions on the environment, climate, and health of the inhabitants of the Arctic.” (Arctic Council 2015c, p.121)

And a few other sporadic mentions (see Arctic Council 2015c, p125-126). The main focus here is clearly climate change. Given the political nature of the Framework Document, one can wonder if health is not considered as a strong enough argument, in the face of the climate change argument and its overall political weight in international context (see 3.1.). Health is not much replaced within any international context as well, or even linked with other initiatives in general. There is no fear of duplication work either (which is

probably because of the very light volume of health work, incidentally). Similar dynamics are observed during the next mandate :

“The AMAP report was welcomed as an important contribution showing that the reduction of short lived climate pollutants will lead to climate benefits and important health co-benefits.” (Arctic Council 2015d, p.11)

“Many delegates spoke up about the importance of this work in terms of its contributions to [...] improving air and health quality in Arctic communities,” (Arctic Council 2016a, p.15)

During the Finnish chairmanship, this argument almost completely disappears from internal discussions, to re-appear only in the context of the related ACAP project (Arctic Council 2019d, p.26), and briefly in the Expert Group output : *“Implementing the recommendations [...] can reduce emissions and, as a result, lead to climate, health and air quality benefits”* (Arctic Council 2019d, p.77). The Icelandic chairmanship also left this approach behind (in its goals at least) (Arctic Council 2019a) even though it still carried in particular by AMAP, but not at general level : *“The work scope is extended to address impacts of SLCFs on ecosystems and human health”* (Arctic Council 2019e, p.15). It is a framing that seems to work well at project-scale but doesn't have much leverage at high political scale. It does not rally the same political engagement. It also proved insufficient on its own when the consensus on climate change cracked : as observed in part 3.1. and 3.3., it was never explicitly used during the eventful Finnish chairmanship.

Similarly, there are sporadic mentions of “economic benefits” but they are never discussed between SAOs, within Working bodies of the Council, or even properly described. An early manifestation of this idea would be the slight mention of cost savings from mitigation in the 2013 Task Force report (TF SLCF 2013), but there is very little and nothing resembling an actual political effort at this point in time. The only time this is actually discussed is in 2017, years later after its first mention :

“There was a discussion of a possible cooperation with the OECD analyzing the economic impacts of black carbon.” (Arctic Council 2017e, p.5)

“The Arctic Council will move forward on a cooperative initiative with the OECD to examine the economic consequences of black carbon abatement work. AMAP and the EGBCM will take the lead.” (Arctic Council 2018b, p.5)

There is no follow-up on this in the 2019 Ministerial report however, even if the idea doesn't seem abandoned (Arctic Council 2019e). Without any discussion of its scientific

or technical backing, and the rarity of its mentions, this approach seems to wield even less power than the health framing.

In conclusion, despite their almost systematical mentions, the health benefits do not seem to be a powerful political lever, at least not for the “traditional” decision-makers who are national representatives and Ministers. It is a framing that is valued for outreach to wider audience however, and more noteworthy, it is also a framing that allows to make space for engagement creativity for other actors with less agency, in this case the Permanent Participants. The recent work on economic co-benefits seem to open again a new negotiation space, but the developments are too slow to examine how this framing is invested by actors yet.

3.3 Black Carbon as a Pollution issue

Pollution problems are at the core of the Arctic Council’s existence, and at the root of many Arctic cooperation dynamics observable today (Tennberg 2000). Moreover, Black Carbon was regarded as an air pollutant long before any climate effects was considered (Khan 2016; Shapovalova 2016). Yet, even if the pollution framing is used early on, it has much less presence than one would expect, as the climate change theme occupies the lion’s share of the discursive space. In recent years however, the pollution theme is mobilized again, which then appears very helpful as the consensus on climate change falls out, although one would not speak of a full shift from a climate to a pollution focus.

Even if less used throughout times, the pollution framing is one of the earliest themes, emphasized during the first ever discussion of Black Carbon emissions : *“They welcomed AMAP’s work on non-CO2 drivers of climate change that highlights the link between climate change, air pollution and health.”* (Arctic Council 2008a, p.3). It is especially visible in the terminology : as demonstrated in part 3.1., before the “Short Lived Climate Forcers” denomination is adopted, one also encountered “contaminants”, “pollutants” and direct references to air pollution in internal discussions. The first AMAP preliminary report uses *“Short-lived pollutants”* exclusively (AMAP 2008). Nevertheless, the first time there is discussion of ACAP’s Short-Lived Climate Forcers work it is at Tórshavn in 2010 with the creation of the *“Short Lived Climate Forcers and Contaminants Project Steering Group”* (Arctic Council 2010a, p.5), approved by Ministers in the Nuuk

declaration (Arctic Council 2011c). It is interesting to note the use of both “forcers” and “contaminants” in the title, looking like they refer to different things, while, as has been demonstrated, both are used interchangeably in the debate at this point. Afterwards, there is little use of this framing, even if Short-Lived Climate Forcers are consistently included in ACAP’s mandates :

“ACAP [...] is responding to new and emerging threats to the Arctic, such as SLCFs” (Arctic Council 2011d, p.9)

“Ministers endorsed the establishment of an ACAP short-lived climate forcer contaminants project steering group to undertake circumpolar demonstration projects to reduce black carbon and other emissions of short-lived climate forcers,” (Arctic Council 2013e, p.8)

ACAP’s Short-Lived Climate Forcers projects are very little discussed in general. First of all, because they take time to be enforced : “*The need to start demonstration projects and concrete work under ACAP was also underlined.*” (Arctic Council 2011b, p.4); and secondly because they are understood as a continuum of the two others bodies’ work :

“The following sequencing was mentioned: 1) AMAP provides scientific evidence ; 2) task force provides recommendations for general AC policies and 3) ACAP implements or facilitates concrete actions of recommendations.” (Arctic Council 2011b, p.6)

Once the recommendations are agreed on, there is little to debate. The 2013 Task Force work plan keeps using “pollutants” and “forcers” interchangeably, yet there is no outlining of pollution as part of the issue in : the 2011 technical report only has chapters about climate change and health (TF SLCF 2011a). There is nothing about pollution in the declarations either. One should keep in mind that the pollution framing is similar to the climate change framing in the sense that it relies on a wider debate that has already established the relevance of the issue, especially in this case, as the fight against pollution is a fundamental aspect of the original Arctic Environmental Protection Strategy (AEPS) mandate (Tennberg 2000), and represented the majority of AC activities before the climate change turn of the Norway Chairmanship (see part 2.1., and Khan 2016; Shapovalova 2016; Tennberg 2000). Moreover, it is a theme even more vague than climate change, and because it is much less manipulated its limits are ill defined, even in its terminology : “*A project on reductions of SLCF and contaminants/pollutants affecting the Arctic region will be undertaken.*” (Arctic Council 2013e p.9). What does it mean? Given the large use of the climate change theme in parallel, its no surprised it is simply

less needed. It is also quite an old framing, which relies on preserving the environment for the environment's sake, with less linkages to humans, and especially with less linkages to humans on the global scale. This is not as politically appealing after the climate change shift, which put forward the notions of affectedness and direct experience (Blue 2016; Howarth 2017; Toussaint 2018).

ACAP's work is intensified during the 2013-2015 mandate with a lot of different projects on Short Lived Climate Forcers and Black Carbon specifically :

"Reviewing ACAP's current and future work on black carbon, [ACAP's representative] covered the group's work on reduction of black carbon from residential wood combustion, as well as: upcoming pilot projects; emissions inventories; demonstration projects for reducing black carbon emissions from diesel; policy options for black carbon reduction; financing options, and; a system for black carbon emissions impact management." (Arctic Council 2014b, p.5)

"Citing the priority that ACAP has placed on black carbon in recent years, the ACAP Vice-Chair pointed out that this is one of several projects focusing on the issue." (Arctic Council 2014a, p.8)

As mentioned previously, there is little about AMAP and ACAP in the coming Framework, and pollution is not even mentioned in it (Arctic Council 2015c). In the Ministerial report however, it is made clear that short-lived climate forcers are still a priority of ACAP : "*The Working Group focuses on reduction of black carbon and other short-lived climate forcer contaminants*" (Arctic Council 2015c, p.13), and they are referred to as "*contaminants*" (Arctic Council 2015c, p.12) "*pollutants*" (Arctic Council 2015c, p.17, p.46, p.53) and "*pollution*" (Arctic Council 2015c, p.15). There are moreover multiple mentions of enhanced air quality :

"TFBCM work will lead to benefits for the climate with important co-benefits for human health and air quality in the Arctic." (Arctic Council 2015c, p.8, twice)

"The recommended actions may benefit Arctic people through improved local air quality" (Arctic Council 2015c, p.13, twice)

Such emphasis is new. Following up on this, air quality concerns are mentioned once between SAOs during the US chairmanship : "*Many delegates spoke up about the importance of this work in terms of its contributions to [...] improving air and health quality in Arctic communities*" (Arctic Council 2016a, p.15), but really show their presence

in the Ministerial report at the end of the mandate. The report shows that Black Carbon is still a prominent ACAP issue :

“ACAP strives to support those pilot projects that contribute to reductions in emissions of [...] Short-lived climate pollutants (SLCPs) such as black carbon, methane, and HFCs at present covered partly under international conventions” (Arctic Council 2017c, p.8)

“Further, to reduce pollutants in the Arctic environment, ACAP would like the SLCP EG to include projects on energy efficiency and air quality” (Arctic Council 2017c, p.11)

and several related projects are justified (in part) by purely environmental benefits :

“which is bringing health, environmental, and economic benefits to the community” (Arctic Council 2017c, p.10)

“The project will take important steps towards reducing adverse environmental and health impacts in the area.” (Arctic Council 2017c, p.12)

It even contains direct, explicit mentions of “*Black Carbon pollution*” (Arctic Council 2017c, p.19) or SLCP as “*air pollution*” (Arctic Council 2017c, p.23, p.26), a first in a while. It is also at the Fairbanks meeting that black carbon is mentioned as “*pollutant*” in a ministerial declaration for the first time (Arctic Council 2017a, p.4). But of course, it is after 2017 that we see them coming back full force, for the reason already laid out above regarding the US administration. In spite of the Finnish chairmanship putting Black Carbon and Methane action under the “climate change” paragraph in its programme (Arctic Council 2017b), the issue is debated under the thematic discussion on “*Pollution Prevention*” (Arctic Council 2017e p.8) between SAOs. Even the Observers’ contributions to the Expert Group are rebranded : “*Work of the Observers on Pollution Prevention in the Arctic*” (Arctic Council 2017e, p.11). ACAP work as well gets an interesting lift : “*She reported that ACAP had focused much of its work over the year on the reduction of pollution*” (Arctic Council 2018a, p.7). This is technically true, but first of all, it seems self-evident for the Arctic Contaminants Action Program to work on pollution, and not just “most of its work” but all of it. Secondly, as underlined above, most of ACAP work over the years was actually focused on Black carbon specifically, so there seems to be an implication here. This is contrasted by a later declaration from the chair : “*[ACAP’s chair] also expressed a wish that the Arctic Council States would show leadership on climate change mitigation, as climate change is a major concern for the Arctic.*” (Arctic Council 2019b, p.16). Nonetheless, the strengthened use of the pollution framing does work very

well. Interestingly, it brings together both the US, having turbulent internal policy updates, and Russia, which has always been cautious with collective action on Black Carbon (as can be demonstrated in the “*Interpretation*” part of the Framework (Arctic Council 2015c, p.123)):

“Russia noted that it is more and more interested to address the issue of pollution and plans strengthened participation in the work of the EGBCM. The U.S. stressed the importance of the work on black carbon for the Arctic and thanked Finland for raising the issue at a high political level.” (Arctic Council 2017e, p.8)

The 2019 Ministerial report presents many similarities with the precedent one, especially in its choices of wording and themes : ACAP focus on Black Carbon and Methane is still present (and worded in identical terms as in the Fairbanks report) :

“ACAP strives to support pilot projects that contribute to the reductions of emission of [...] Short-lived climate pollutants (SLCPs) such as black carbon, methane and hydrofluorocarbons (HFCs) currently covered under international conventions;” (Arctic Council 2019d, p.19);

AMAP continues activities, using the pollution framework extensively which is fairly new, however :

“Impacts to be considered will go beyond those of direct climate forcing. In addition, the implications of air pollutants for both climate change and air quality and a wider suite of impacts will be considered.” (Arctic Council 2019d, p.30)

It is worth noticing that the Short Lived Climate Forcers are referred to as “*pollutants*”, and mention of “*air quality benefits*” (Arctic Council 2019d, p.77). In spite of this, the first symptom of US dissent appears in the Expert Group chapter (Arctic Council 2019d), and of course in the “*Statements*” (Arctic Council 2019c), which means no high level political document was produced with regards to Black Carbon in 2019. Regarding internal working processes however, everything seems to go business as usual on to the next mandate. Better than this even : “*The Chair of the EGBCM further noted that all eight Arctic States were active in the group’s work*” (Arctic Council 2019e, p.15). The sheer fact of pointing this out, however, reveals that it was nothing to take for granted, and that cooperation remains fragile. Did the framing shift from climate to pollution work, ultimately? It would seem like it, except that it is not specifically pollution that the Icelandic chair is using as a framing, but is simply Black Carbon as its own issue. As the

shift is quite recent, future developments in time would give a clearer view of the dynamics at play, for now one has to wait.

In conclusion, the pollution theme is present since the beginning, but since the focus was so adamantly set on climate change, and that the pollution framing itself is quite vague and dated, it was never really insisted on. It comes in very handy however when the strength of the climate change framing falls apart, precisely thanks to its vagueness but also thanks to its historical relevance. Now is this “replacement” as powerful and efficient? This can be argued, as cooperation remains fragile.

3.4 Black Carbon as a Frontier : The Arctic Council as Pioneer

Similarly to the health framing, in this case the issue is build as a self-standing one, without linking it to a wider context or making it a proxy issue. The Black Carbon issue, is constructed as a frontier the Arctic Council is the first actor to explore. The shape of this frontier evolves with time however.

First, it is mainly understood as a scientific frontier : it is actually the very reason which led the Arctic Council to move fast on the issue. The first ever Black Carbon related activity of the AC is *“a workshop to clarify the science behind the effects of non-CO2 drivers on climate change and melting snow and ice”* (Arctic Council 2008b, p.4, emphasis added), which received *“broad support”* (Arctic Council 2008b, p.4), with reference to *“The important role of the Arctic Council to investigate Arctic specific issues”* (Arctic Council 2008b, p.4, emphasis added). Clarify, investigate : the idea of a knowledge gap is obviously present. As discussed in 2.1., this weaves in with the Chairmanship’s objective. Interestingly, this is not necessarily the take of the presenter : *“He pointed out efforts already underway to assess and address sources of these pollutants. Two science workshops have been convened on this issue, and another is planned for Fall 2008,”* (Arctic Council 2008b, p.4). He does indicate a knowledge gap as well, but does not imply it is a ground which is not being invested at all. That being said, the very presenting of the issue is very obviously meant to foster action. By getting involved, AC would enter some sort of scientific “gold rush”, an innovation race : there is the idea of a new frontier. The early AMAP works very much insist on the knowledge gap : out of the thirteen points made in the first AMAP workshop, only four are recognized as “science supported” enough to warrant direct action (AMAP 2008). From around this point, the Arctic Council moves

from a scientific frontier to a policy frontier. Some research has been done already (if not much) but politically it is a barren ground. There is no coordination and little formal action :

“[...] there are significant sources of non-CO2 drivers of climate change north of 40° North. The initial recommendations from the workshop include for nations to consider unmet observation needs, expand monitoring and research, commit to methane reductions, take measures to limit agricultural crop residue burning and mandate AMAP to further evaluate black carbon emission reduction options.” (Arctic Council 2008a, p.3, emphasis added)

“Member States’ experts are reviewing the recommendations to determine their practical feasibility and implications for national agencies and processes.” (Arctic Council 2008a, p.3, emphasis added)

If the Council only wished to get involved into the scientific “competition”, AMAP work would have been largely sufficient, yet there is a quick agreement on the fact that this is an opportunity for policy development, and extension of the work to other bodies. Nonetheless, the desired degree of cooperation is actually sparking somewhat of a debate : should the Arctic Council simply communicate on that gap, or act on it (i.e. suggesting recommendations)?

“SAOs and PPs supported that the eight AC Member States can benefit from coordinated AC outreach. However, on the issue of non-CO2 drivers, specific Arctic Council action requires further consideration.” (Arctic Council 2008a, p.3)

“SAOs agreed that it was too early to consider presentation of an agreed AC text to other bodies.” (Arctic Council 2008a, p.3)

Here we see how the novelty of the issue opens a space for negotiations : this is what we saw in 2.1., except it is interesting here to uncover that SAOs seem aware of it and proactively manipulate this framing. In the end, this opportunity is an argument for the establishment of the TF establishment, and follows through in the declaration :

“Some SAOs and PPs supported the establishment of a task force to look further into potential mitigation actions and/or broader policy responses” (Arctic Council 2009c, p.3, emphasis added)

“[The ministers] Decide to establish a task force on short-lived climate forcers to identify existing and new measures to reduce emissions of these forcers and recommend further immediate actions that can be taken [...]” (Arctic Council 2009e, p.3)

The state of novelty however leaves the task force with a lot of work:

“[...] most countries do not yet have official black carbon and organic carbon emission”
(Arctic Council 2010b, p.7)

“Due to the preliminary nature of some inventories uncertainties must be made appropriately clear.” (Arctic Council 2010b, p.8)

This allows to keep the negotiation space open. First, in terms of mandate; as the Task Force obtains a lot of agency over its own mandate and timeframe, which allows, in second, to create a longer lasting political momentum, insisting on unresolved aspects which are still discursively brought within the limits of the issue:

“The TF will focus on emissions from the 8 Arctic states now, but transport from other regions is included and leaves open the possibility for engagement with non-Arctic region sources at a later date” (Arctic Council 2010b, p.8)

“The task force has so far focused on black carbon, but this does not mean that methane and tropospheric ozone are less important- it means that other work has been done in these areas as compared to black carbon.” (Arctic Council 2010a, p.4)

This is visible during the first mandate of the Task Force of course, where the focus on Black Carbon and the extended timeframe are negotiated, but also during the second, where SAOs keep insisting on the open space in policy making : *“In their presentation, the co-chairs underlined that the recommendations from 2011 are still valid, and the challenges remain the same. All states can reduce their emissions”* (Arctic Council 2013c, p.4). This discussion leads to an opening of the relevant partners too and slowly opens towards Observers States :

“But Arctic states should also cooperate with other states to reduce total emissions.” (Arctic Council 2013c, p.4)

“The message to Arctic Council states, observers and others is that they should implement these recommendations; take mitigation actions, as emissions of SLCFs at other geographical places affects the Arctic very seriously.” (Arctic Council 2013c, p.4-5)

This is unsurprising because in parallel the Arctic Council itself (as a self-standing actor) is portrayed as a frontier explorer of the topic, meaning it also gets to embody some sort of “ambassador” position of the issue in the global context :

“the Task Force will focus on black carbon, because it is the area in which the Arctic Council can add the most value.” (Arctic Council 2010b, p.7)

“The task force has kept major focus on black carbon because it is the particular pollutant requiring the most action and thus offers the greatest opportunity for an Arctic Council contribution to the global climate debate” (Arctic Council 2010a, p.4)

“Emission inventories for black carbon are being estimated for the first time. This is a very important achievement for which the Arctic Council can take credit, as improved data on emissions make it possible to improve mitigation measures” (Arctic Council 2010a, p.4)

“[...] the task force is doing important work and showing AC leadership.” (Arctic Council 2010a, p.5)

Although there is no trace of it in public output at this time. The 2011 Declaration targets the States directly : “[*The Ministers*] encourage Arctic states to implement, as appropriate in their national circumstances, relevant recommendations for reducing emissions of black carbon” (Arctic Council 2011c, p.3). Added to this, the ministerial report settles on the scientific and technical frontier, and the “*unique role*” of Black Carbon in the Arctic, which is a new argument (Arctic Council 2011d, p.6). There is no explicit mention of the Arctic Council’s “added value” in the public outputs of 2011, the decision is painted as purely technical, and in no way as a mean to “*show AC leadership*” (Arctic Council 2010a, p.5) :

“Rather, this focus acknowledges the unique role black carbon may be playing in the Arctic, its need for study as a frontier area of science, and the need for new technical analyses and emission inventories to inform the Task Force’s recommendations regarding black carbon emission reduction measures.” (Arctic Council 2011d, p.6; TF SLCF 2011b, p.2)

“This report focuses on BC because the Arctic Council Task Force on Short-Lived Climate Forcers (henceforth referred to as the Task Force) decided that, among the SLCFs, BC requires the most additional technical analyses.” (TF SLCF 2011a, p.14)

“The primary emphasis of this technical report is placed on BC emissions, as the Task Force decided that, among the SLCFs, BC represents the area where additional technical work is most needed to improve our understanding of SLCF emissions” (TF SLCF 2011a, p.25)

“The remainder of this report focuses almost exclusively on BC, for reasons stated previously, despite the importance of these other key SLCFs” (TF SLCF 2011a, p.36)

The “Arctic Council as a pioneer” framing seems to be a tool used in the context of “inward” discussions only, between SAOs and other Arctic Council decision-makers, while the larger audience is expected to react to different things (consistently with what was underlined in part 3.2.). The ambassador role is very explicit in the Council’s engagement with COPs from COP15 on (see part 2.3.) although, which is definitely a public output. Yet

it is not an output in an Arctic Council context only, and as the Council's participation to the COPs is limited to side-events (see part 2.3.), the scrutiny is also lesser (Schroeder & Lovell 2012). This role is still emphasized profusely among SAOs during Swedish chairmanship. The insistence on relating the Council's work on Short-Lived Climate Forcers in the global context is also presented as a way to keep up with the international pace :

"He referred to current work on short lived climate forcers in other international fora, such as UNEP, IMO, CLRTAP and IPCC, and the importance of relating the work of the Task Force to the dynamics of these activities." (Arctic Council 2011b, p.4)

"[...] the work of the SLCF Task Force received support as being of global importance. Reference was made to a global process on SLCFs, and the need to ensure linkages are maintained." (Arctic Council 2011b, p.4)

"The Arctic Council should not conduct its work in isolation, but in dialogue with relevant global initiatives and processes." (Arctic Council 2011b, p.4)

"The Arctic Council has played a central role in lifting the SLCF issue on the global agenda, and the issue needs to be kept high on the agenda also after the task force has finalized its current mandate." (Arctic Council 2012a, p.4)

"The need to avoid overlaps, both within the Arctic Council, and globally, was underlined" (Arctic Council 2013c, p.4)

"[...] the Arctic Council is in good position to take global leadership." (Arctic Council 2013c, p.4)

It is interesting to note that this argument is used several times while the other three framings are much less brought forward (there is no mention of pollution, barely any health, and very little mention of climate change (see 3.1.,3.2.,3.3.). This idea of leadership is made explicit publicly for the first time in Kiruna, once the deed is done, in the ministerial and Task Force report :

"The 2011 reports have been referenced in other significant works on SLCF (e.g. United States EPA's Report to Congress on Black Carbon in 2012 and bounding the role of black carbon in the climate system in 2013). The pioneering role of the Arctic Council in raising worldwide awareness of SLCF has been recognized internationally with the recent creation of the Climate and Clean Air Coalition (CCAC)." (Arctic Council 2013e, p.35)

"For science and policy reasons, the Arctic Council is especially well suited to play a leadership role in addressing black carbon emissions" (TF SLCF 2013, p.1)

The Arctic Council is understood as a cohesive entity, a single actor, and this space creates an opportunity for it to take on norm entrepreneurship and thus gain international legitimacy. The Arctic Council sports this new legitimacy, and is pushing to be recognized as an entrepreneur. The Task Force reports focus a lot on this idea incidentally, four out of the nine recommendations are about Arctic Council's action, both as coordinator and for outreach (TF SLCF 2013). The Arctic Council establishing itself as an international pioneer ultimately leads to a focus on Observers' involvement in the following mandates :

"For both black carbon and methane, there are therefore opportunities for Arctic nations to engage with Observer and other nations to pursue measures that protect the Arctic climate."
(TF SLCF 2013, p.3)

"The Arctic Council can facilitate a common "Arctic voice" among Arctic nations to pursue black carbon and methane reduction objectives through engagement with other international forums and with Observer nations." (TF SLCF 2013, p.13)

Which is rapidly put into place following seemingly widespread agreement :

"[The Task Force's co-chair] also asked for SAO guidance regarding the issue of observer engagement in TFBCM meetings, noting that at its first meeting, delegates had agreed that broad engagement, including from AC observers, would be desirable." (Arctic Council 2013d, p.4)

All the while keeping an eye on the "competitors", as seen in 2.3. This level of inclusion is new, so the frontier to explore moves from outside to within the Council :

"Canada [...] highlighted the unique character of this as an element of the Council's work in which observers have played – and will play – an active role (AIA, the US and Norway reiterated this point, with Norway noting that this was a model, and that they hope this could be relevant for other areas of work)." (Arctic Council 2015a, p.10)

The novelty of the issue allowed to test grounds for novel operating models for Arctic Council, and for new types of relations within the international arena. The Framework document for Black Carbon and Methane is very evidently the end result of the development of a new model of Observers engagement : the entirety of section 3 of the political engagements is to "*Promote Action by Others*" (Arctic Council 2015c, p.122), and the first and longest paragraph of which is dedicated to "*Arctic Council Observer States*" (Arctic Council 2015c, p.122). There is no language of pioneering in the Framework, but it is claimed later at the Fairbanks ministerial, once the deed is done, again : "*Some of*

these countries developed black carbon emissions inventories and projections for the first time” (Arctic Council 2017c, p.86). Following this, the collective quantifiable goal is the new “first” the Arctic Council can bring to the world :

“During the discussion, several SAOs expressed enthusiasm for the prospect of an ambitious regional goal for black carbon emissions reduction, and noted that such a step would be a significant new action both globally and for the Arctic Council itself.” (Arctic Council 2016b, p.7, emphasis added)

“Several States noted with pleasure the establishment of a concrete, aspirational and quantitative collective black carbon reduction goal; Norway, Sweden and the U.S. noted that it is the first such goal worldwide.” (Arctic Council 2017d, p.17, emphasis added)

There are ideas of pushing it further :

“Norway called for concrete actions and was willing to look at the possibility to make the common aspirational goal more ambitious.” (Arctic Council 2018a, p.11)

“Finland highlighted the importance of the work of the EGBCM and the commitment to the common aspirational goal.” (Arctic Council 2018a, p.11)

but they do not come to any successful conclusion. This is not entirely surprising : the opportunity to open new grounds was taken, and the issue has been routinized by then. The routinization means the terms of definition and action has been agreed by all participants : the negotiation space is closing up, closing with it opportunities for creativity, and thus there is a loss of political momentum. Expanding the possibilities for further action becomes even more difficult when the US dissent appears, because in place of being turned towards the future and the outwards, the energy and resources are mainly invested inwards in guaranteeing a sustained cooperation within the Council.

In conclusion, the scientific frontier framing pushed the Arctic Council to act rapidly, and then the policy frontier made a space for actors to decide the length and width of action, as novelty creates a barren political space. First, the Council used the opportunity to position itself as an international pioneer, and then from this pioneer position to engage the Observer states, thus establishing new creative ways of international cooperation. The main drawback of such framing however is that it is not resistant to time at all : once the opportunity is seized, the negotiating space closes up and the political momentum is lost. There no longer are margins and to negotiate and stretch out.

4 Discussion and theoretical contribution

The evidence presented hereinabove has allowed to outline the shapes successively taken by the Arctic Council's action on Black Carbon and the discussion surrounding the issue. That being said, to gain an actually comprehensive understanding of these dynamics over the past fifteen years, it is important to take a step back, to try and link the identified frames and identified actions while putting the results in perspective with the scientific literature.

As demonstrated, the Arctic Council started to address Black Carbon quite early on, years before it became a global issue, and at a time where scientific uncertainty was very strong. At the time, the Arctic Council was very focus on knowledge production and "policy shaping" (Barry et al. 2020): it was acting as its own epistemic community (Barry et al. 2020) Tennberg 2000) rather than a simple political forum, and that probably allowed it to take on the issue at a time where knowledge gaps were quite wide. But what is remarkable is the quick expansion from scientific research to political action : as soon as 2008 one observe calls for policy shaping outreach, and even beyond that a call for policy coordination. The term "quick action" appear several times (see 2.1.), and interestingly such action is specifically linked to climate change right away. Consistently with the literature, the ambiguity created by the nascent nature of the problem made space for several coexisting frames being manipulated simultaneously (Vanhala & Hestbaek 2016), but the one which is invested in political terms is climate change : it is the climate change framing that politicizes the issue, taking it beyond the technical realm. This is parallel to a general turn of the Arctic Council, as mentioned, towards climate change issues, but also parallel to a growth in the overall number of projects and participants, especially Observers (Barry et al. 2020; Väättänen & Zimmerbauer 2019).

This framing is contested, or rather minimized consistently during the first years with insistence on the CO₂ concerns, which is also consistent with the literature (Preston 2014), this seems to indicate that if there is a common understanding of Black Carbon as relevant to the fight against climate change, there could be coexisting but distinct understandings of its priority level. As noticed in the literature, the fact that different actors attach different meanings to the same broad and ambiguous frame doesn't prevent action from being taken (Mintrom & Luetjens 2017; Vanhala & Hestbaek 2016). As a matter of fact, the author argues that it is precisely what made it possible to shape Black Carbon (and Short Lived Climate Pollutants at this step in time) into a singular, self-standing issue. By investing the climate

change framing, the Arctic Council is arguably attempting to close the air quality / climate change nexus (Yamineva & Liu 2019, Shapovalova 2016), a discursive novelty of which the SAOs seem to be conscious as demonstrated by explicit references to “*links between air pollution and climate change*” (Arctic Council 2008a, p.3; Arctic Council 2009d, p.8). This combination of a vague framing with large global momentum such as climate change, which virtually allowed every actor to find its meaning within, with the idea of potential innovation on this same issue are motors for moving the issue from assessment dynamics to policy shaping dynamics. At least, they are the ones looking the most potent for the decision-makers in the early stages. They are the ones who convince the SAOs and other Arctic Council decision-makers that Black Carbon and Short Lived Climate Pollutants is an issue deserving political attention.

Despite these linkages, the use of the health framing itself is very limited in the negotiation context and emphasized much more in outward communication. The literature tends to find it is one of the most potent framings to obtain political support from the general public (Rosenbloom 2018) and it is especially cross partisan (Feldman & Hart 2018; Mossler et al. 2017). For the decision makers however, it does not seem to be a priority, at least in this context. The literature has established that narratives working that efficiently engage policy-maker do not always work for the public (Howarth 2017), here it seems that the narratives engaging the public are not as powerful for an audience of policy makers. This is consistent with the literature which finds that health effects of environmental policies are rather understood as an evidence of success, an indicator of performance, rather than international problem or multi scale problem needing solving (Mintrom & Luetjens 2017) in spite of their omnipresence.

On the other hand, despite the negotiation space being dominated by climate concerns, the Arctic Council is sustaining important linkages with the pollution frame : if barely at discursive level (at least until 2015, see 3.3.), the technical and institutional linkages are very important : in this first phase this is showed through the early and strangely undisputed involvement of ACAP. This is not fully surprising however, as the Arctic Council doesn't operate in a vacuum either : even in 2007 it is already an ageing institution with its own history, internal narratives and ideologies, and in spite of attention turning to climate change this very institution built itself, built the transnational coordination on the common enemy of pollution

(Barry et al. 2020; Rottem 2021; Tennberg 2000). The pollution frame is sustained without being negotiated because in the Arctic Council context of the time it is self-evident. It is interesting to note that similarly to climate change, it is a very broad framing and it seems that it shelters several understandings (see 3.3.) of a same issue. This also supports the point previously made with the climate change framing, that consensus for action is not consensus on meaning. Furthermore, if consensus for action is not consensus on meaning, it means that meaning is not set in stone and effectively transformed by society participants, as constructivism exposes (see Grobe 2010; Blue 2016; Mintrom & Luetjens 2017; Rosenbloom 2018; Vanhala & Hestabek 2016).

The second aspect of the Council's involvement with Black Carbon is institutionalization. In the critical moments of the institutional development of the Council's response to Black Carbon, the pioneering framing appears a lot and is quite obviously a motor for the decision-maker much more than a framing made for outreach. The extension of Black Carbon work in time and the long-term attribution of resources to the issue which is negotiated are also to be replaced in the context of an expansion of the Arctic Council itself. First of all, the 2011-2015 period is clearly a period of institutional transformation with a major solidification of its administrative basis, with notably the establishment of the Arctic Council Secretariat (Arctic Council 2013e). Moreover, by this point the mandate of the Arctic Council is de facto extended well beyond the realm of environmental protection (Barry et al. 2020; Rottem 2021), and this is especially visible under the Canadian chairmanship and its controversial focus on human and economic development (Exner-Pirot 2016). Lastly, the Council is also witnessing an influx of Observer states (Barry et al. 2020; Väättänen & Zimmerbauer 2019), leading to the publication of the so-called Nuuk criteria (Arctic Council 2011d) and later the Observer's Manual in 2013 (Arctic Council 2013e), setting the basis for participation on willingness and financial ability (Väättänen & Zimmerbauer 2019). Due to all these factors, the Arctic Council is effectively reinventing its mandate and its relations to the international arena. The pioneering narrative allows actors to link the Black Carbon issue to these larger dynamics and benefits from its momentum.

This linkage is a success leading to the establishment of the Framework for Action on Black Carbon and Methane (Arctic Council 2015c), which is adopted at a time when the Arctic Council has both the will and the means to position itself as a policy-making actor, beyond

policy-shaping (Barry et al. 2020). The Arctic Council aims at both horizontal (via Task Force / Expert Group policy recommendations) and vertical (via ACAP projects) diffusion of policy innovation, which is quite ambitious especially at the time where the existing legal instruments are very limited (Khan 2016; Shapovalova 2016). The Council does not try to make its Member States negotiate any legal treaty under its auspices however (even though it did already happen for other topics on other occasions), but rather articulate linkages with existing instruments – such instruments that are only in the making at the time (Khan 2016; Shapovalova 2016) : the Arctic Council took the opportunity to position itself as some sort of mediator. It is also making itself visible in the international area by tackling the issue under the climate change banner, as discussed above, which is also unique (Shapovalova 2016). This pioneer positioning is solidified on the one hand by the adoption of the quantitative goal (Arctic Council 2017a) and on the other hand by the turn towards Observers' inclusion to large extent, a turn which is consciously recognized by the Council actors themselves (see 3.4.). Beyond the question of efforts duplication, there seems to be a real will for innovation at the international level, not only in terms of content but also of format, this is clearly a case of institutional creativity made possible by the Arctic Council soft law nature, its flexibility. This is consistent with findings on other major topics sported by the Arctic Council, such as biodiversity (Barry et al. 2020).

Now, is institutional creativity enough to solve a problem of this complexity? The implementation of the Arctic Council's recommendations and goal remain voluntary : an ultimate step to solve the problem would be to develop new enforcement mechanisms. However, the Arctic Council is only a forum. Moreover, at this later stage of negotiations, discursive dynamics have changed. As developed in part 2.4., the novelty falters and with it, opportunities for creative engagement as the Council has developed a solid and well-defined norm of dealing with the issue. Nonetheless, Black Carbon cooperation did go through several crises in the recent years.

Given the long-standing and deep-seated budget and financing issues of the Arctic Council (Barry et al. 2020), the number of invested resources across three bodies and several initiatives is definitely a proof of commitment. It is important to underline however that Black Carbon is lucky to fall within the scope of the Project Support Instrument (which is definitely proof of a sustained understanding of Black Carbon as a pollution issue, even if this framing is

not much explicitly used between SAOs), indeed, there are almost no other resources ACAP has access to since it is not a legal body unlike most of the other working groups (Barry et al. 2020; Rottem 2021). This fact explains the Russian focus of ACAP's project, since the PSI is Russian-led and Russia focused. This is also unsurprising given Russia's historical focus on pollution and its often observed reluctance to fully embrace climate change cooperation (see part 3.1., part 2.3.; see also Tennberg 2000).

In spite of this stable investment in demonstration projects, there have been troubles in political cooperation. Even in the latest stages, most of the Arctic Council Black Carbon action hinges on justifications related to climate change. However, from around 2015 on, there is an increase of Black Carbon discussions relating to the pollution framing (see 3.2.). While taking a step back, it is interesting to observe that this is correlated to overall tensions in the Arctic following the Ukrainian crisis, leading to a cooldown in the relations between Russia and the Western Arctic States (Exner-Pirot 2016, Käpylä & Mikkola 2015). If there is no major fallout, the literature mentions some difficulties, including Canada's "boycott" of one of the Task Force meetings during its chairmanship (Exner-Pirot 2016). This is without visible consequences, now, one may wonder whether this return to fundamental themes of Arctic cooperation such as the fight against pollution is not a way of shielding against a possible fragilization of the cooperation. Whether this was deliberate or not has to be assessed elsewhere, yet the mobilization of the pollution theme as a backdoor for sustained cooperation is very visibly voluntary during the next chairmanship, when the US decides to pull back from any kind of political cooperation on climate policy. However, it is clear that it is not a simple "rebranding" that allowed Black Carbon policy to survive the crisis. The author argues that it was⁵ through means of discursive flexibility and in particular the fact that the two main framing are ambiguous enough to allow for a wide array of coexisting meanings (consistently with the literature, see Vanhala & Hestbaek 2016); and due to timing : it is harder to backpedal on existing institutions rather than to not start a project.

Ultimately, everything happens as if the consensus on the need for action does not stem from a consensual understanding of the issue. If 'single villain' narratives have proven more efficient to create engagement at wider audience level (Rosenbloom 2018), the

⁵ Among other factors, most notably other material factors that could not be assessed in this study.

complexity of negotiations at high political level does not allow for strategies relying on experiential engagement to be efficient. In this multi-layered discussion, the shortest and most secure way to action is to accept coexisting distinct meanings rather than wait for epistemic consensus to take action. Way more than the consensus, it is the opportunity that makes space for innovation and creativity, may it be discursive or practical. As opportunity arise when boundaries are renegotiated, it is actually the many different meanings that Black Carbon action carries that allows it to survive the trial of time. The issue stayed consistently on the agenda for fifteen years, while the practical realities of action and its justifications have varied enormously across time.

5 Conclusion

So, how did Black Carbon mitigation become and stay a priority issue for the Arctic Council? It became an issue by being politicized as a proxy issue for climate change, and benefitted from a lot of political opportunities, both from the wider context via the global movement against climate change and from within the Council itself evolving into a more cohesive bloc with strong international presence, to solidify into an issue being allocated long-term resources and to be dealt with routinely. But as the consensus on climate cooperation fell apart, the Black Carbon issue benefitted from its own complexity, as the other effects of mitigation policies were used to secure continued cooperation.

Indeed, Black Carbon is a complex issue because emissions have a rather wide variety of impacts, on the climate and the environment of course but also on human health and human development. The consensus on which one(s) of these impacts should be prioritised or should justify action evolved through time, and the boundaries of the issue keeps being renegotiated as new knowledge emerges and wider political priorities are reshuffled. Moreover, emissions are not globally mixed, so the health and environment impacts are localized, yet, the climate impacts do have worldwide consequences. This means addressing such emissions requires a geographical element of design : the Arctic Council's strategy started as a regional one, and evolve over time into a global one. Lastly, the climate impact of black carbon emissions, if significant, is short-termed, which greatly reduces the cost of mitigation and thus creates more opportunities for establishing cooperation.

Because these negotiations are so complex, they also offer many avenues to craft narratives putting different priorities on different aspects of black carbon emissions. The four framings identified (climate change, health and economic impacts, pollution and new frontier) were all used consistently but varied greatly in importance and timing. The climate change framing is the fundamental force behind the politicization of black carbon in an Arctic Council context, and the new frontier framing is the fundamental force behind its institutionalization. Now, the pollution framing has allowed, by its width and historical weight, to secure cooperation when the other ones are defaulting. Lastly, the health and economic benefits framing has been used consistently but more as a rallying argument for wider audiences rather than as a discussion platform between decision-makers. Now, if those factors have been demonstrated to have varied effect, one should keep in mind that they are only facilitating

factors among many other factors, such as timing or material factors, which have yet to be assessed to properly account for the complexity of social reality.

Nevertheless, one can clearly see from this study that if there is a sustained consensus on action, there is no consensus on understanding of the issue and its priority-level. Moreover, the renegotiation of intersubjective meanings is constant through times, but it is also what creates opportunities and forms of creative engagement with the issue. This constant renegotiation is actually necessary for the status quo to evolve and for social reality to adapt to wider changes and discoveries on such complex issues such as climate change or black carbon emissions, which are so cross-cutting there is little chance for any epistemic consensus.

This constant renegotiation demonstrates that meanings are socially constructed, rather than words being a stable translation of a given reality : the collective meaning of “the Black Carbon issue” changes overtime because some actors of society put forward their own understanding of it, and confront it to the understanding of others. This friction between the different understandings creates intersubjective meaning, a meaning shared between subjects, as explained by constructivism.

Lastly, as mentioned above, this friction is actually necessary for social adaptation, in other words, contestation is necessary for social innovation, for society to enforce new solutions to emerging problems. In the case of the Arctic Council, the consensus based functioning on the one hand, and the relative diversity of its participating members on the other, make a lot of space for that friction, and give leeway to accommodate the institutional and policy changes it brings about. Because it is a forum, and not an International Organization, the Arctic Council is often criticized for its weakness in terms of enforcement, but in reality, it is probably a much more efficient platform to foster and develop the future of Arctic cooperation.

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