THE FROZEN COMMONS:

POSSIBILITIES AND LIMITATIONS IN INTERNATIONAL ENVIRONMENTAL DEVELOPMENT IN THE RUSSIAN ARCTIC

DAVID W WISHARD

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COMMITTEE:

VLADIMIR KACZYNSKI

SCOTT RADNITZ

MARY KAY GUGERTY

Program Authorized to Offer Degree:

The Henry M. Jackson School of International Studies

Ellison Center for Russian and East European and Central Asia Studies

Russian and East European and Central Asia Studies

University of Washington

Abstract

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Possibilities and Limitations in International
Environmental Development in the Russian Arctic

David W Wishard

Chair of the Supervisory Committee:
Associate Professor Vladimir Kaczynski
School of Marine and Environmental Affairs & Jackson School of International Studies

This study relies on social science research on the causal mechanisms of capacity improvement to assess multilateral, environmental interventions in the Russian Arctic. The case studies reveal the occasions wherein target linking, commitment making, behavioral influence, and knowledge production played significant roles in influencing Russian institutions to take sustainable, environmental action. This theoretical basis enables an assessment of the Arctic Council's unique use of knowledge production as a mechanism of influence. This assessment is achieved through a case study in the Council's first and only major intervention into the Russian Arctic, the National Program of Action (NPA). Unlike other Council programs that coordinate multilateral research, the NPA tried to intervene directly into Russian policy-making by transferring the knowledge it generated into recommended regulations. However, none of these draft laws were ever passed. The study concludes that Russia accepts new environmental commitments, adapts its environmental targets, and acts on new knowledge when doing so intersects candidly with interests that are connected to Russian economics and defense.

Key words: *multilateral environmental regimes, Russian Arctic, Arctic Council, institutional problem-solving capacity, international environmental governance* (Word Count**:** 10500)

CONTENTS

LIST OF ORGANIZATIONS AND ACRONYMS

UNEP	United National Environmental Programme
GPA	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
RPA	a Regional Program of Action for the Protection…
NPA	a National Program of Action for the Protection…
NPA-Arctic	the Russian national program of action, drafted by the Arctic Council
GEF	the Global Environmental Facility; multilateral fund for UNEP programs
SAP	Strategic Action Program; a GEF-designed management framework
Minekomrazvitiya	Ministry of Economic Development
Minprirodi	Ministry of Natural Resources and Ecology
RAIPON	Russian Association of Indigenous Peoples of the North; an NGO
Roshydromet	Federal Service for Hydrometeorology and Environmental Monitoring (within *Minprirodi*)
Rosprirodnadzor	Federal Service for Supervision of Natural Resource Management (within *Minprirodi*)
Rosatom	State Atomic Energy Corporation
SRI-Atmosphere	Scientific Research Institute for Atmospheric Air Protection (Russian joint stock company)
EPA	US Environmental Protection Agency
NEFCO	Nordic Environment Finance Corporation; multilateral project fund
PSI	Arctic Council Project Support Instrument; a NEFCO program for funding the Arctic Council's pollution programs

LIST OF TABLES AND FIGURES

INTRODUCTION

In 2014, Russia's Ministry of Natural Resources approached Greenpeace Russia for technical assistance in monitoring the extent of oil spill pollution across Northwest and Arctic Russia.[1] The Russian Federal Service for Hydrometeorology itself admits that Russia's rivers carry approximately one half a million tons of oil into the Arctic Ocean every year.[2] The Arctic Council, the preeminent forum for multilateral environmental governance in the region, has had programs to address land-based, marine pollution in Russia since 1998. What went wrong?

Russia occupies the largest Arctic landmass of any Arctic Council member state. The Council's ability to address Arctic environmental problems is therefore to no small extent measured by its ability to intervene in the Russian environment. The objective of this study is to ascertain which governance mechanisms have historically succeeded in influencing Russian federal bodies to take sustainable environmental action, and to assess the Arctic Council's ability to employ them. "Sustainable environmental actions" here refers either to discrete activities or, ideally, lasting policy changes.

The methodology for assessing multilateral environmental programs draws upon social science literature on causal mechanisms that multi-state, environmental governance arrangements utilize to influence national institutions. Regardless of its legal status, any multilateral arrangement's influence can be measured by the extent to which it improves member states' problem-solving capacity. Improvements in problem-solving capacity can in turn be measured by the quality of outputs that national institutions produce in response to their interaction with the arrangement. Such outputs can include one-off remediation activities to

[1] "Minprirody Komi Podderzhalo Rekomendacii Grinpis Po Bor'be S Neftjanymi Razlivami."
[2] "Нельзя Позволять Нефтяному Бизнесу Зарабатывать На Разрушении Природы | Гринпис России" <http://www.greenpeace.org/russia/ru/news/2015/24-02-2015_Obrashenie_ecologov_prezidentu/> [accessed 27 February 2015].

wholesale, sustainable policy changes, the latter obviously being the most desirable. Multilateral environmental organizations use specific mechanisms to induce these outputs: knowledge production, behavioral influence, commitment-making, and program target linking. Knowledge production is especially relevant in discussing the Arctic Council, whose power to deploy knowledge-producing expert groups is arguably its most powerful means for inducing change at the national level. The explicitly qualitative form of this analysis is rooted in the assumption that, in the short term, observable, political effects matter just as much, if not more, than quantifiable changes at the level of the environment. Whether or not the Arctic Council's NPA-Arctic, the G8's Global Partnership, etc. conclusively "solve" the environmental problems they set out to ameliorate is a quantitative question more suited to longer-term, scientific analysis. What matters here is whether these collaborations set the stage for sustainable action.

The chaos amidst Russian financial and governmental institutions in the 1990s coupled with the Yeltsin administration's collaborative policy towards the West opened Russia to a slew of bi- and multilateral interventions into the Russian environment. This "green-wave" of collaboration with Russia, lasting roughly from the end of the Gorbachov administration to the present day, provides both the temporal scope of this analysis and the political context for assessing what (if any) unique tools of influence the Arctic Council has at hand. The first chapter establishes this context by applying the frameworks for analysis described above to a representative sample of significant green-wave interventions in the Russian environment. These interventions include: the G8 nations' efforts to catalyze Russian action on radioactive waste in Northwest Russia through the Global Partnership (2002-present); Norway's efforts to influence the Russian Fisheries Agency through the bi-lateral Norway-Russia Fisheries Commission (1978-present); and the US's push to develop Russia's black carbon monitoring policy under the

Bilateral Presidential Commission (2009-present). In each case, Soviet/Russian agencies worked with or hosted international scientists and natural resource policy-makers to address a shared environmental problem, one typically originating in Russia. Note will be taken to address the problems for collaboration posed by the current Ukraine crisis.

Having established this context, Chapter Two proceeds to with an analysis of the Arctic Council's chief multilateral intervention in Russia, the NPA-Arctic. The NPA-Arctic's implementation illuminates the limited extent to which, and on what conditions, Arctic Council programs can enlist international environmental actors to effect change in Russia's internal policy processes. The NPA-Arctic case study will be proceeded by a conclusion and discussion of the Arctic Council's future role in Russian policy-making.

A broad range of secondary and primary sources undergird this analysis. The discussions of nuclear waste and the Barents fisheries rely primarily on American, Norwegian and Russian governmental reports, studies by Geir Hønneland and Olav Schram Stokke, and the extensive historical data compiled by the Bellona Foundation and the International Atomic Energy Agency. The black carbon and Arctic Council case studies are informed by a similar but broader array of sources, including: academic studies by Elena Wilson Rowe, Lana Kochtcheeva, Geir Hønneland, Jonathan Oldfield, and Olav Schram Stokke; journalistic accounts from the Bellona Foundation, the Barents Observer, Greenpeace, and ArcticInfo.ru; legal and environmental data from the Russian Ministry of Natural Resources, the Russian legal database Konsul'tantPlus, and the Russian indigenous NGO, RAIPON; extensive UN, EPA, and Department of Energy reports from the life of both the NPA-Arctic and the Black Carbon Initiative; and interviews with Arctic Council members, EPA officials, and UN program managers. These interviews were conducted face-to-face in Moscow and via correspondence between 2014-2015.

CHAPTER ONE: THEORETICAL FRAMEWORK AND CONCEPTUAL APPROACH

I. Multilateral Institutions and the Soft-Law, Environmental Regimes they Administer

The Arctic Council has its roots in the "green wave" of European environmental consciousness that characterized the late Soviet era. Mikhail Gorbachov symbolically inaugurated this wave in his now-famous 1987 Murmansk speech, wherein the political cliché, "the Arctic as a zone of peace," was coined.[3] Awareness of the transnational effects of pollution had reached a crescendo in the wake of the Chernobyl and Exxon Valdez disasters, to name only the most dramatic. Alarmism over the USSR was especially prevalent next door in Scandinavia. Amidst international skepticism, Finland took Gorbachev's promises of Arctic peace seriously and in 1989 hosted a summit of Artic states, the provenance of today's multilateral Arctic Council. The Council's consensus-based governance model was not formed ad hoc, but was modeled after the UN's Regional Seas Programs, multi-state co-management models for shared water bodies conceived by the UN Environment Program in 1975. Since 1975, 13 groups of states have officially adopted the model, and establlished secretariats to execute its functioning (referred to variously as Commissions, Cooperatives, Councils, Funds, Administrations, etc.).[4]

The governance arrangements reviewed in this paper all institutionalize "regimes" over certain environmental matters, from nuclear waste to mine gases. Regime, in this sense, is an inclusive term that encompasses all of the accepted behaviors, norms, (potentially binding) rules, and historical practices presiding over a given issue that a body like a UN Regional Sea program insitutionalizes.[5] Regimes can exist along a spectrum of compulsoriness, from hard laws (e.g.

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[3] Gorbachev, "Speech in Murmansk at the Ceremonial Meeting on the Occasion of the Presentation of the Order of Lenin and the Gold Star to the City of Murmansk, 1 Oct. 1987."
[4] Doussis, "Environmental Protection of the Black Sea: A Legal Perspective," 360.
[5] Biermann et al., "The Fragmentation of Global Governance Architectures: A Framework for Analysis."

UN conventions on dumping oil at sea) to non-binding agreements (bi-lateral Memoranda of Understanding). Regional Sea administrations may promote their members' compliance with international laws, but the administration itself is not an enforcement body. The question of these institutions' effectiveness at achieving environmental goals in member states is thus rarely a question of their ability to enforce environmental compliance, so much as their ability to foster it. The case of the Join-Russian fisheries Commission, dicussed below, is a rare exception.

Shared seas are arenas for the classic problem of differentiated costs and benefits at the heart of multilaterlal governance. The "deep structure" of international relations—which transboundary environmental problems inherently entail— compromises attempts to draft multilateral laws, regulations and administrative policies that would otherwise function relatively well at the state level.[6] This is what Underall terms the "law of the least ambitious program."[7] Any multi-state legal bind would require states to integrate aspects of their very sovereignty into a supra-national body.[8] The political feasibility of a given regime thus a function of the political legitimacy of the negotiation arena itself, i.e. the multilateral institution administering the regime. [9]

Neither the Arctic Council nor the other institutions surveyed here is empowered to create binding law. The Council has no "convention" to which it could even theoretically hold member states legally accountable (the Search and Rescue Treaty is certainly binding, to the extent that any international treaty can be binding, though it would not be the Arctic Council to enforce it). Its role is to establish and coordinate multilateral scientific projects that are carried

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[6] Young, "Effectiveness of International Environmental Regimes: Existing Knowledge, Cutting-Edge Themes, and Research Strategies."; Young, "If an Arctic Ocean Treaty Is Not the Solution, What Is the Alternative?," 32.
[7] Young, "Effectiveness of International Environmental Regimes: Existing Knowledge, Cutting-Edge Themes, and Research Strategies.," ft 67.
[8] Wilson Rowe and Torjesen, "Key Features of Russian Multilateralism," 1.
[9] from "One Question, Two Answers" by Arild Underal in Miles, *Environmental Regime Effectiveness: Confronting Theory with Evidence*.

out nationally and under national supervision, "with the aim to bring about added value through a measure of international co-operation."[10] Arctic Council agreements are thus effectively memoranda of understanding, presenting priorities that members may ignore under pain of little more than reputational loss.

II. Improved "problem-solving capacity": a qualitative measure of multilateral institutional effectiveness

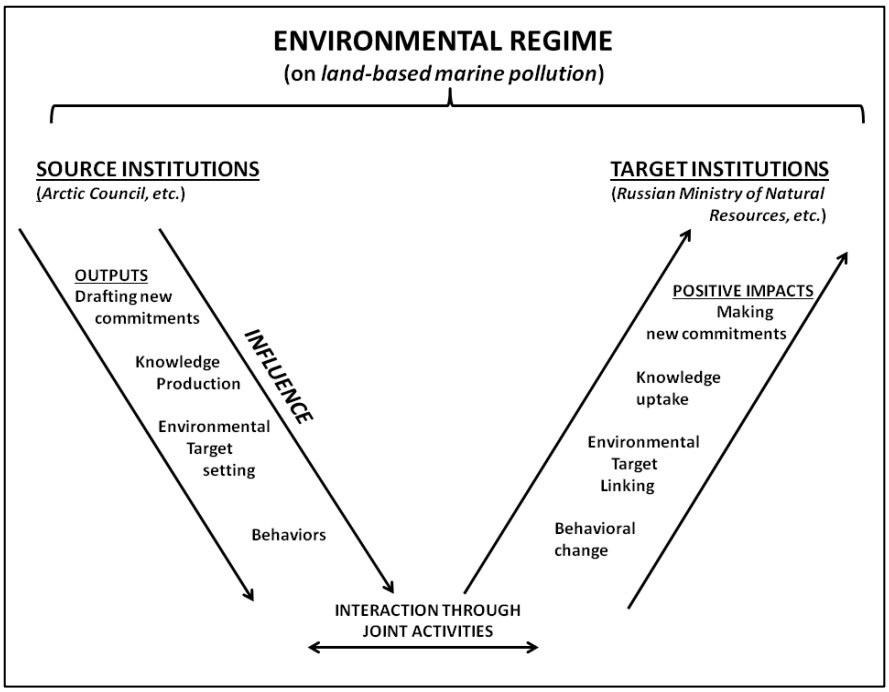

Figure 1. Causal Mechanisms Carrying Influence from a Regime to a Target Institution. *Adapted from Gehring and Oberthür, 2009, p. 130.*

Young, Keohane and Levy assert that regime evaluation should focus not on quantitative environmental measurements but rather that it may be more pragmatic, at least in the short term, to judge a regime's effectiveness in terms of the new behaviors, regulations and policies it

[10] Rowe, "Russian Regional Multilateralism: The Case of the Arctic Council," 295.

engenders.[11] This approach avoids data-focused environmental program evaluation[12] which measures quantifiable changes in the "governance targets"[13] of the institution under analysis, such as measurable drops in contaminant loads in a lake, etc. More often than not, Young continues, program evaluations turn up neutral to negative results when applied to international environmental regimes. Lackluster short-term quantitative changes are predictable given the immense geographic, temporal, and political scale of the problems regimes address (e.g. climate change). Conversely, qualitative studies' short-term (often political) focus uncovers "the development of social practices that [can play] significant roles" in improving institutions' capacity to ameliorate the environmental problem in question.[14] The lack of comparable, "no regime" counterfactuals means that the "second best solution" is to study the life cycle of the regime from its formation to implementation and then formulate a qualitative notion of meaningful impact.[15]

Forms of qualitative impact can be grouped under Underall's umbrella term "improved problem-solving capacity." Discrete forms of impact vary. Keohane and Levy[16] use a typology of political, economic, and legal behaviors. Underall's game-theory approach focuses on shifts in power and incentive as institutions assume their respective roles addressing a shared problem.[17] The focus on incentive touches on Oberthür's notion of influence, or "feedback loops" between

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[11] Keohane et al (1993), cited in Sprinz, "Research on the Effectiveness of International Environmental Regimes : A Review of the State of the Art"; Young, "Effectiveness of International Environmental Regimes: Existing Knowledge, Cutting-Edge Themes, and Research Strategies."
[12] Sprinz, "Research on the Effectiveness of International Environmental Regimes : A Review of the State of the Art," 1.
[13] Oberthür and Gehring, "Managing Institutional Complexity Regime Interplay and Global Environmental Change," 41.
[14] Miles E, et al. (2002), Breitmeier H, Young OR, Zürn M (2006), Underdal A (2008), cited in Young, "Effectiveness of International Environmental Regimes: Existing Knowledge, Cutting-Edge Themes, and Research Strategies."
[15] Sprinz, "Research on the Effectiveness of International Environmental Regimes : A Review of the State of the Art," 5–7.
[16] Ibid., 4.
[17] Underdal 1997, cited in Ibid., 5, 13. See also Miles, *Environmental Regime Effectiveness: Confronting Theory with Evidence*.

the domestic and international players involved in implementing a regime's programs.[18] Young and Levy's notion of impact comprises such outputs as improvements in economic efficiency, legal compliance, feelings of fairness, and outright policy changes.[19] All of the above are nonetheless outputs, outputs that exhibit improvements in a target institution's capacity to solve the given environmental problem.

III. The mechanisms of influence that improve target institutions' problem-solving capacity[20]

Regimes like those embodied in a Regional Sea program engage national institutions in "vertical," collaborative activities in pursuit of the regime's goals. Collaborations are vertical insofar as they link politically "lower" national institutions into "higher" multilateral ones as a means to consolidate governance over a transboundary issue.[21] The working relationship influences both institutions' capacity to address the environmental problem that gave rise to the regime, hopefully positively.

Figure 1 visually depicts the path through which influence travels, leading ultimately to improved problem-solving capacity in a target institution. First, the Source Institution declares/issues a course of action to address one of the regime's priorities. Actors in both the Source and the Target institution then interact as they carry out this new, collaborative action. In the case of the NPA-Arctic, such actors include scientists and policy makers with diverse

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[18] Sprinz, "Research on the Effectiveness of International Environmental Regimes : A Review of the State of the Art."
[19] Ibid.
[20] I follow the framework for institutional interaction elaborated by the research teams contributing to the Institutional Dimensions Of Global Environmental Change (IDGEC), a decade-long attempt to establish frameworks for diagnosing current (and future) global environmental governance regimes. See Young, "Institutions and Environmental Change: The Scientific Legacy of a Decade of IDGEC Research, Background Paper for Plenary Speech."
[21] Oberthür and Gehring, "Managing Institutional Complexity Regime Interplay and Global Environmental Change," 34.

affiliations, including Russian institutes, academic institutions, ministries, the World Wildlife Fund–Russia, and many international and foreign organizations. Ideally, the trust and knowledge that this diversely constituted "epistemic community"[22] gains from collaboration influences the upper management, as it were, of the Target Institution.

Within this vertical interaction, Gehring and Oberthür elaborate four causal mechanisms by which a global, "Source Institution" causes a national, "Target Institution's" environmental problem solving capacity to improve: *knowledge transfer/production*, *behavioral influence*, *commitment-making*, and *program target linking*.[23] Knowledge transfer occurs when the Source institution produces some new information that is "subsequently fed into the decision-making process of the Target organization", and is thus a mechanism that, in the first instance, registers within the target institution's outputs.[24] Commitment-making occurs when the source and target institutions are parties to some form of new agreement, within which the target institution obligates itself to produce a novel output--such as a new law, enforcement mechanism, etc.--in accordance with its obligations.[25] Behavioral influence occurs when the source institution produces an output (rules, pieces of knowledge, or simply the behavior of its policy-makers, scientists, etc.) that affects the behaviors of collaborators in the target institution. Behavioral influence can occur regardless of formal policies. It can simply be the result of cooperation. Lastly, target-linking refers to a target institution adjusting its current programmatic targets (e.g. maximum allowable sulfur content in diesel fuel for heavy-duty vehicle) to match those of the Source institution.

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[22] Miles, *Environmental Regime Effectiveness: Confronting Theory with Evidence*.
[23] Gehring and Oberthür, "The Causal Mechanisms of Interaction between International Institutions," 127–130.
[24] Ibid., 37.
[25] Oberthür and Gehring, "Managing Institutional Complexity Regime Interplay and Global Environmental Change", p. 40-42.

In sum, then, one can say that an environmental regime is effective if the regime contains some source institution whose outputs move through any combination of Gehring and Oberthur's causal paths to positively affect a target institutions' outputs. The transference of problem-solving capacity causes a qualitative improvement in the status quo. In the broad view, such a qualitative improvement should, in principle, lead to quantifiable environmental improvements. That, however, is another paper.

CHAPTER TWO: GREEN-WAVE MULTILATERAL INTERVENTION INTO THE RUSSIAN ENVIRONMENT

I. Governance over Legacy Nuclear Waste: the Global Partnership against the Spread of Weapons and Materials of Mass Destruction

Dumping radioactive waste at sea was an internationally accepted practice until approximately 1985. The Soviet Union, and then Russia, continued this practice in secrete, however, until at least 1992.[26] The advent of Perestroika and Glasnost in the 1980's initiated the unveiling of the extent to which the Soviet drawdown of its nuclear naval apparatus had wreaked havoc on Russia's Northwestern marine environment. Some figures: the Northern Fleet comprised 180 nuclear-powered vessels at the height of Perestroika, but plummeted to 42 by 2011.[27] To date, four submarines have sunk around the Kola Peninsula, and approximately 25,000 spent fuel assemblies from the decommissioned fleet have been at the Andreyeva Bay fuel/waste storage facility and Gremikha naval base (a Northern Fleet submarine service facility) for eventual processing or dumping at sea.[28] All told, the Kola Peninsula, and the areas around Novaya Zemlya Island, collectively comprise the largest repository of nuclear waste in the world.[29]

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[26] NRPA, *Joint Norwegian-Russian Missions to Investigate Atomic Waste in the Kara Sea*.
[27] Marlène Laruelle, "Russian Military Presence in the High North: Projection of Power and Capacities of Action," in *Russia in the Arctic*, ed. by Stephen J. Blank (Strategic Studies Institute, 2011), pp. 63–90 (p. 72).
[28] Laruelle, "Russian Military Presence in the High North: Projection of Power and Capacities of Action."
[29] NDEP, "Northern Dimension Environmental Partnership Website", 2015 <ndep.org>; Center for Nonproliferation Studies, *Coordinating Submarine Dismantlement Assistance in Russia,* September 2004..

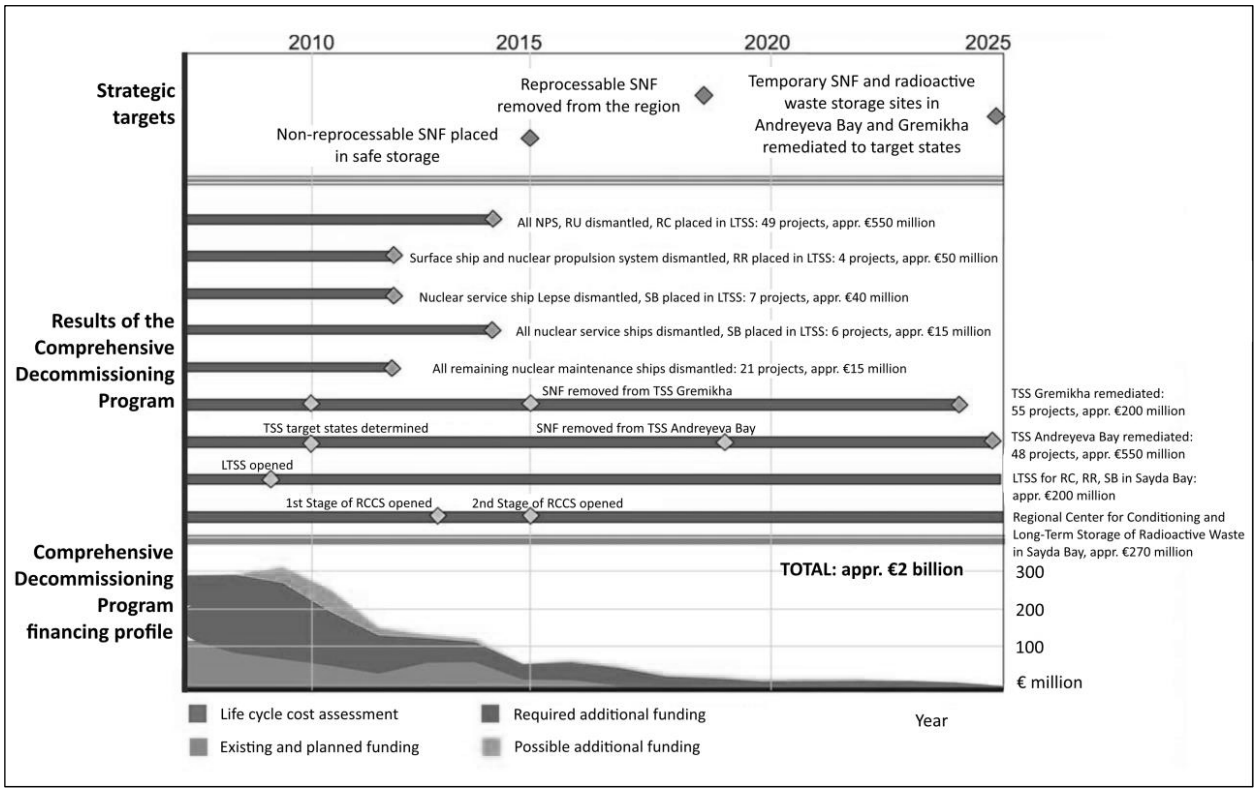

Figure 2. Legacy cleanup project schedule, Global Partnership Strategic Master Plan, 2005 *(TSS: temporary storage site for spent nuclear fuel and radioactive waste; LTSS: long-term storage site; NPS: nuclear-powered submarine; RU: reactor unit; RC: reactor compartment; RR: reactor room (on board a surface ship with a nuclear propulsion system); SB: storage block; RCCS: Regional Center for Conditioning and Long-Term Storage of Radioactive Waste)* Source: A slide from a presentation made by A. V. Grigoriyev, 2014, cited in Nikitin and Shchukin.

The chaos amidst Russian financial and governmental institutions in the 1990s increased the urgency to intervene and assist Russia in addressing this region. The 1990's saw a slew of bi- and multilateral coordination mechanisms under which over a dozen countries committed human and financial capital to helping Russia dismantle its nuclear-powered, general-purpose submarines and manage its spent nuclear fuels and wastes. The largest was the Global Partnership against the Spread of Weapons and Materials of Mass Destruction (Global Partnership), begun in 2002 by the G7 states plus Russia (i.e. the G8).

Under the Global Partnership, the G7 states committed to raising $20 billion to fund nonproliferation projects, the US contribution being a full half of that.[30] Projects thus far include readying floating fuel-storage units for transport to long-term storage, construction of solid waste storage and treatment facilities, refurbishments for the Nerpa and Severodvinsk shipyards, a waste treatment facility expansion for Atomflot, and new equipment for the Kola nuclear power plant (for a recent list of all projects and respective funding, see Global Partnership, 2012 and Nikitin and Shchukin, 2014).[31]

Target linking and multilateral commitment-making were the Global Partnership's primary tools. Environmental and safety targets for nuclear projects—e.g. construction specs for spent fuel storage pools, 10 year-standard storage lengths, target safety protocols to guide power plant upgrades— have always been incontrovertibly linked to nonproliferation safeguard standards enshrined in the International Atomic Energy Agency (IAEA). Nearly every initiative, statement, agreement, etc. precipitated by the Global Partnership has relied on close consultation with the IAEA.[32] Rosatom's relative deference to the IAEA triggers enormous sources of funding through the Global Partnership. Such compliance testifies less to the power of target linking as a mechanism for influence than to the extent of Western countries' willingness to pay to eliminate radioactive threats.

Despite its global purview, Global Partnership projects have had limited success in cleaning up the Russian North.[33] This lackluster record is due in part to the fact that Global

[30] Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, "10 Plus 10 Over 10 Program | Treaties & Regimes | NTI."
[31] Tamnes and Offerdal, *Geopolitics and Security in the Arctic: Regional Dynamics in a Global World*, 138.
[32] Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, "10 Plus 10 Over 10 Program | Treaties & Regimes | NTI."
[33] For illustration: as of 2012, the Kara Sea still contained 19 sunken ships containing radioactive waste, 14 nuclear reactors, five of which contain spent nuclear fuel, 735 pieces of radioactively contaminated machinery, 17,000 containers of radioactive waste, and the sunken K-27 and K-159 nuclear submarines. Source: Anna Kireeeva and

Partnership coordinates a dizzying profusion of bi- and multilateral programs with an equally dizzying number of Russian civilian and military agencies.[34] Already in the 1990s, Russia had committed its Ministry of Defense and Rosatom a slew of bi- and multilateral nonproliferation agreements (see below), all of which were subsumed under the Global Partnership.[35] The multiplicity of high-level arrangements produces management roadblocks on the ground. Cases include multiple companies appearing to install the same equipment, contractors on the same project being forbidden from exchanging valuable expertise, the burglary of 30 tons of metal from defueled reactors outside Murmansk, and the botched transport and tragic sinking of the K-159 submarine in 2003 (presently considered the Arctic's single largest potential source of radioactive contamination; Norway and Russia continue to investigate its status).[36] Different national environmental assessment standards have also led to bottlenecks, gaps, and duplication.[37]

The other major impediment to the Global Partnership has been Russia's remilitarization of its Arctic spaces. The line between military and civilian nuclear production was, historically, especially blurred in Arctic,[38] but Russia's re-securitization of this space since 2000 intensifications this predictable impedance, especially in matters of naval waste. The Partnership originally persuaded Russia to allow all contributing states the same privileges it allowed the US through the Cooperative Threat Reduction program, namely, access to nuclear sites and financial

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Charles Digges, "Bellona-Rosatom Workshop Details Progress against Backdrop of International Strains," 2014; NRPA.

[34] These include the US's bi-lateral Cooperative Threat Reduction and Arctic Military Environmental Cooperation programs; the EU's Multi-Lateral Nuclear Environmental Programme in Russia (MNEPR), the EU and Nordic states' Northern Dimension Environmental Partnership (NDEP); Russia and Scandinavia's Barents Euro-Arctic Council (BEAC) just to name a few.

[35] Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, "10 Plus 10 Over 10 Program | Treaties & Regimes | NTI."

[36] Digges, "Radiological Survey of Sunken K-159 Finally Puts to Sea after Mechanical Delays"; Center for Nonproliferation Studies, *Coordinating Submarine Dismantlement Assistance in Russia*, 4, 16.

[37] Ibid., 17.

[38] Feldman and Blokov, *The Politics Of Environmental Policy In Russia*, 34.

and legal protections.[39] However, Russia's financial recovery into Putin's second term bolstered an increasing distaste for donor-recipient relationships, especially those with the US.[40] Russia been less inclined to authorize civilian oversight, let alone foreign access, to nuclear materials sites.[41] A 2007 case wherein the Ministry of Foreign Affairs denied entry to a Norwegian nuclear expert on a routine Global Partnership-related visit portended of collaborative difficulties to come.[42] Ultimately, Russia's prioritization of security and investment in military development in the Arctic has impeded the power of the Global Partnership to use commitment making and target linking to affect Russian institutions.

II. Governance over Marine Resources: The Joint Norwegian-Russian Fisheries Commission

Like migrating radionuclides, "migrating fish have no border."[43] The post-WWII years saw the birth of bi- and multilateral fisheries agreements whose purpose was to manage fish stocks that straddle or migrate across multiple states' maritime borders. Norway and the USSR created such a bi-lateral regime for the Barents Sea with the 1978 signing of the Norwegian-Soviet Grey Zone Agreement. The agreement established the Norwegian-Soviet (now Norwegian-Russian) Fisheries Commission, a bi-lateral body staffed by experts and coast guard officials from both states. The Commission takes annual fish stock measurements, establishes quotas, facilitates quota exchanges, negotiates mutually binding regulations, and coordinates cooperative scientific research.[44]

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[39] Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, "10 Plus 10 Over 10 Program | Treaties & Regimes | NTI."
[40] Weitz, "Russian-U.S. Cooperative Threat Reduction Beyond Nunn-Lugar and Ukraine."
[41] Feldman and Blokov, *The Politics Of Environmental Policy In Russia*.
[42] Rowe, "Russian Regional Multilateralism: The Case of the Arctic Council."
[43] *Joint Norwegian-Russian Fisheries Commission* <http://www.jointfish.com> [accessed 4 May 2015].
[44] Stokke, "Management of Shared Fish Stocks."

The Commission has successfully utilized all four causal mechanisms to influence each state's capacity to pursue strategies for natural resource conservation. For example, the Commission links its annual catch targets to the population estimations published by the International Council for the Exploration of the Sea (ICES).[45] The mutual reliance on scientific recommendations from the ICEA increases trust, and this trust in turn establishes the conditions for each country not only to assent to the Commission's quota allocation but to commit themselves to mutual enforcement.[46]

Quota allocation demands frequent scientific exchange between each state's representatives, which generates social capital. The frequency of Commission meetings, and their attendance by largely the same people, makes laxity in compliance control embarrassing for both parties.[47] The Norwegian's ability to bargain through informal channels has been, according to Hønneland, another means to build credibility with their counterparts. The contentious but lively atmosphere of the 2010 border negotiations activated the power of "seafaring norms" that commission delegates—often life-long coast guards, fishermen, commercial sailors, or regulators—had accrued over decades of common experience.[48] The Commission thus gains legitimacy as a quota broker and inspection regime enforcer through the behavioral mechanisms of informality, robust debate, and mutual reliance on science.

A major achievement in terms of commitment-making was the Commission's role inducing both states to relax certain sovereignty-based management and inspection claims in the Grey Zone. Both states claimed sections of this maritime area as theirs (until the 2010 border agreement). At the beginning of the Commission's functioning, inspection authority over each

[45] Hønneland, *Arctic Politics, the Law of the Sea and Russian Identity: The Barents Sea Delimitation Agreement in Russian Public Debate*, 27.
[46] Stokke, "Management of Shared Fish Stocks," 9, 12.
[47] Stokke, "Management of Shared Fish Stocks."
[48] Hønneland, *Making Fishery Agreements Work: Post-Agreement Bargaining in the Barents Sea*, 137.

other's boats was unclear. The solution was simply to stipulate that within the Grey Zone each state could inspect those boats to which it had issued a fishing license.[49] On these conditions, Norway would "allow" the Russian Coast Guard to inspect Norwegian boats within an area that Norway claimed was its own sovereign territory, and vice versa. The result was an arrangement that "touched only lightly" on each state's sense of territorial sovereignty.[50] The location of the Grey Zone, at sea and away from military installations, reduced the security implications of these border interpenetrations. The countries even exchange their boats' satellite tracking data, an uncommonly transparent practice for a Russian federal agency.[51] The mutual-inspection policy is a rare case of international cooperation wherein Russia conceded claims to sovereignty for the sake of preserving cooperative access to a valuable common good. This diverges from the theory that Russia strongly rejects state-to-state, "horizontal" arrangements that demand commitments at the expense of sovereignty.[52]

Knowledge production and behavioral influence, not to mention clear economic incentives, played synergistic roles in influencing the mutual inspection regime.

III. Governance over Greenhouse Emissions: the Black Carbon Initiative for Russia

The end of the Soviet Union ushered a boon in "scientific entrepreneurship" among foreign researchers on the Russian Arctic.[53] The rise of climate change as a critical policy priority, coupled with the international scientific community's lack of data on 60-70% of the Arctic's land spurred major international scientific administrations to increase their funding for

[49] Stokke, "Management of Shared Fish Stocks."
[50] Ibid., 12.
[51] UN Food and Agriculture Organization, "Fishery Country Profile: The Kingdom of Norway."
[52] Wilson Rowe and Torjesen, "Key Features of Russian Multilateralism," 3.
[53] Crane, "Navigating Through Global Political Change: When There Is a Will There Is a Way.".

Russia-based projects[54] (the triple reorganization of the Soviet/Russian environmental bureaucracy from 1996-2004 also had the effect of undermining erstwhile bureaucratic barriers to foreigners wanting to come and conduct research[55]). The US National Science Foundation, for illustration, doubled funding for Russian Arctic research and exchange—from $170 to $352 *annually*—between 1995 and 2005.[56] US-Russian exchanges would proliferate under the Bilateral President Commission (BPC), a multi-front program initiated by Presidents Obama and Medvedev in 2009, and effectively frozen at present in response to the invasion of Crimea.

A key collaborative environmental governance goal for the BPC, and for the Arctic Council still today, was to reduce global black carbon emissions.[57] Black carbon soot from incomplete diesel fuel combustion is one of the oldest and most visible short-lived, climate-warming agents. When particulates deposit onto a surface like they heighten its solar heat absorption, directly influencing sea ice and permafrost melt (the latter became a spectacularly visible issue in Northern Russia with the recent opening of the melting-permafrost induced Yamal Crater).[58] Black carbon's effect is large but its addressability is relatively straightforward, making it a priority target for short-term action against climate change.

Black carbon is a specific compound within the more generic "black soot," and prior to the BPC Russian emissions data did not disaggregate the two.[59] The US was the first country to submit a separate, *black carbon* inventory to the IPCC, having just developed new monitoring methodologies in 2009.[60] At the advent of the BPC nearly no black carbon data had been

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[54] Cooper, "Summary."
[55] For a brief, helpful description of these re-shufflings, see Hønneland and Jørgensen, "Federal Environmental Governance and the Russian North."
[56] Cooper, "Summary."
[57] US Department of State, *State Department Cable: 14 STATE 143338.*
[58] Ismagilov, "Formation of Local Emissions of Black Carbon from Stationary and Mobile Engines and from Gas Flares in Northern Russia."
[59] Korotkov et al., "Possible Approchaes to Monitoring BlackCarbon Emission in Russia."
[60] EPA, "Personal Communication."

collected on the Russian Arctic, though it was known that diesel trucks, open coal mines, oil and gas flares, and wood stoves were widespread.[61]

The EPA successfully influenced Russia's decision to adopt the US's emissions monitoring methodologies through the simple use of knowledge transfer. This was achieved via collaborative efforts that included: beginning to build a national scale model of energy use, training Russia in a satellite-based method to estimate black carbon emissions (obviating expensive lab models that require running a truck for days on end), and executing demonstration projects on Murmansk bus fleet upgrades.[62] The EPA's research successfully convinced experts at Minprirodi (the Russian Ministry of Natural Resources and Ecology) not only that black carbon can be affordably abated, but that continued emission poses a significant health risk to northern communities.[63] The Russian government followed up by issuing an RFP to fund a new, Russian black carbon emissions inventory based on EPA methodologies (SRI-Atmosphere, a major emissions research and data company in Russia, won the bid and is producing the inventory presently).[64]

The Black Carbon Initiative's use of knowledge transfer in no way touched upon matters of "high politics," and both countries' respective ministries had (and to a great extent, still have) clear blessings to collaborate.[65] Data gathering for the Murmansk projects was somewhat hampered by proximity to military installations, but this did not stop the EPA from successfully gathering multilateral funding to replace the city's bus fleet.[66] The funding was also almost

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[61] Shevchenko, "Distribution and Sources of Black Carbon in the Russian Arctic."
[62] Cresko et. al, "Using Science to Understand Black Carbon Mitigation Potential"; Ismagilov, "Formation of Local Emissions of Black Carbon from Stationary and Mobile Engines and from Gas Flares in Northern Russia"; EPA, "Personal Communication."
[63] Ibid.
[64] Ibid.
[65] Trenin and Lo, 2004, cited in Wilson Rowe and Torjesen, "Key Features of Russian Multilateralism."
[66] EPA, "Stakeholder Meetings on Black Carbon from Diesel Sources in the Russian Arctic Murmansk and Moscow , Russia."

entirely foreign. Not having to pay cash allowed Minprirodi and other agencies to engage the collaboration purely for scientific reasons. The Black Carbon Initiative was thus highly successful because its purview was very much "low politics", it required virtually no money from Russian federal ministries, and the only commitment it attempted to draw from Russia was that the it adopt new emissions measurements that tied directly to matters of public health.

All interviewees for this paper commented on their Russian counterparts' genuine appreciation for and desire to collaborate. The Bilateral Presidential Commission represented the height of Russo-US environmental cooperation, but Putin's return to the presidency and Russia's subsequent withdrawal from the Cooperative Threat Reduction Agreement, expulsion of USAID, and invasion of Ukraine have collectively sealed its coffin. The only means for collaboration now will have to be through multilateral channels, namely, the Arctic Council's working groups. In the short-term, the diplomatic crisis over Ukraine will stymie these groups' ability to conduct research in Russia, and it will further limit the mandates that Russian-nationality working group members have in their interactions with the Council. At present, some working group members are boycotting meetings hosted in Russia. The working groups are nonetheless still technically functioning with full participation from all states. A high-ranking EPA interviewee from the Black Carbon Initiative was optimistic that, at the minimum, US scientific institutions will still be able to interact with Russian ones, if only through multilateral channels.[67]

[67] EPA, "Personal Communication."

CHAPTER THREE: THE NATIONAL PROGRAM OF ACTION (NPA-ARCTIC) IN RUSSIA

I. Background

UNEP's Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities was adopted in 1995 in Washington, D.C. and signed by more than 100 countries. It was the first global agreement to directly address land-based marine pollution. UNEP charged all of its Regional Seas programs with implementing regional and national iterations of its global plan. These iterations are known as Regional and National Plans of Action on Land-Based Sources of Marine Pollution, or RPAs and NPAs. The Arctic Council, which formed the following year, immediately adopted its own iteration, the Arctic RPA.

The Arctic States' respective foreign ministers met under the aegis of the Arctic Council for the first time in 1998. At the Ministerial, the Arctic Council announced its plan to tackle land-based sources of marine pollution from Russia. Sources included not just spilled oil, but pesticide runoff from agriculture in Arkhangelsk and Saint Petersburg, noxious gasses and neuro-toxic methyl mercury from Siberian mining facilities, radionuclides from legacy waste, and persistent organic pollutants (many of which are now globally outlawed). The minutes of that first meeting convey the global relevance of Russia's Arctic pollution problem: "the adverse effects of previous and contemporary anthropogenic activities extend to the bottom of the Atlantic Ocean deep sea via a deep water 'oceanic conveyor belt', and to its surface water through the Arctic Ocean's eastward circulation along Russia's northern coast…The appearance

of Siberian mine tailings in the East Greenland current adds a global dimension to a topic that would, at first glance, appear to be primarily a matter of concern to the Arctic States."[68]

It was widely agreed that post-Soviet Russia, occupying 44% of all lands under its purview, was both the largest source of land-based Arctic pollutants and the member state least administratively capable of addressing them.[69] The Council called upon all member states, its working groups[70], UNEP, and affiliated international financial institutions and NGOs to support a targeted land-based pollution plan for Russia.[71] This was the Arctic Council's multilateral National Program of Action on Land-Based Sources of Marine Pollution in Russia, or the NPA-Arctic. Russia's then-Prime Minister Mikhail Kasjanov approved full implementation of the NPA-Arctic in 2001, right on the heels of the publication of Russia's State Artic Policy. Completed in 2010, the NPA-Arctic is the most comprehensive multilateral intervention in Russia the Arctic Council has attempted to date. The action plan enlisted collaboration from scientists and managers from various Russian ministries and NGOs, and declared broad ambitions to foster sweeping change in Russia's entire environmental regulatory apparatus. Its ultimate success was debatable.

II. The Structure, Goals, and Management Model of the NPA-Arctic

Ministers to multilateral bodies like the Arctic Council typically entrust the implementation of NPAs to an appropriate, environmental ministry in their homes states. Three other Arctic Council member states have adopted NPAs of their own: Iceland, Finland, and Canada. Russia's handling of its NPA differs from these cases, namely in the extent to which its

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[68] UNEP & Minekomrazvitiya, *NPA-Project Document (Version 3, June 2005)*, 4.
[69] Arctic Council, *Proposal for the GEF-Russian Federation Partnership on Sustainable Environmental Management in the Arctic ("Arctic Agenda 2020")*, 1.
[70] Specifically the Protection of the Marine Environment, or PAME, working group. For a list of current working groups and task forces in the Arctic Council see "Working Groups" at http://www.arctic-council.org
[71] See Declarations 24 and 25 in Arctic Council, *Iqaluit Ministerial Meeting.*

Reporting Period:	January 1, 2008 - December 1, 2009							
Source of Co-finance	Cash Contributions				In-kind Contributions			Comments
	Budget original (at time of approval by GEF)	Budget latest revision	Channelled to ACOPS incl. Preparatory Phase[4]	To date Through UNEP/Project office	Budget original (at time of approval by GEF)	Budget latest revision	Received to date	
1	2	3	4	5	6	7	8	9
EPA	4 000 000	944 100	550 800	393 3000	0	0	0	No official report on expenditures during this period was presented by ACOPS and no official proof exists that all or some of those funds were spent on activities directly related to the project
Canada	732 000	732 000	732 000	0	0	0	0	
Italy	500 000	0	500 000	0	0	0	0	
Iceland	100 000	100 000	0	100 000	0	0	0	
IOC of UNESCO	500 000	0	0	0	0	0	0	
RAIPON	270 000	0	0	0	0	0	0	
NEFCO	1 000 000	1 000 000	0	250 000	0	0	0	NEFCO has so far not contributed co-financing to the project
GPA	250 000	250 000		50 000	0	0	0	50000 per year to support UNEP technical staff
Russia	199 500	636 500	0	256 500	5 800 000	6 207 700	3 978 330	In cash contribution, 256500 – Russian input for lease of office premises for PO
Total	**7651599**	**3 662 600**	**1 782 800**	**1 049 800**	**5 800 000**	**6 207 700**	**3 978 330**	

Table 1. Co-Financing for the NPA-Arctic. Adapted from Konygin, p. 82.

national institutions took part in implementing the program. While the Russian Ministry of Economic Development (Minekomrazvitiya) may have haggled for its designation as the "Executing Agency" (discussed below), the highly multinational Steering Committee was the de facto management authority for the NPA-Arctic. By contrast, Iceland took full control of its NPA, the Steering Committee for which comprised representatives entirely from within Iceland's national ministries.[72] Canada simply grafted its NPA into the project portfolio of the Canadian Northern Contaminants Program, which had advanced contaminants mitigation and research programs.[73] It should be acknowledged that, in the late 90's and early 00's, Russia's regulatory apparatus underwent enormous organizational restructuring that would have entirely precluded assuming entirely national control of its own NPA. The same cannot be said, however, for Putin's second presidential term (2004-2008), and it was in this period that the majority of the NPA-Arctic's projects were carried out.

The NPA-Arctic's management was imported. UNEP and the Global Environment Facility (a multilateral fund which allocates funding to UNEP "action programs" worldwide;

[72] Ministry for the Environment (Iceland), *Iceland's National Programme of Action for the Protection of the Marine Environment from Land-Based Activities*.
[73] Holland, "Land-Based Pollution in the Arctic Ocean : Canadian Actions in a Regional and Global Context."

these two organizations will hereafter be referred to as UNEP/GEF) declared that it would allocate up to $30 million for 5 years to fund the NPA.[74] Actual on-the-ground receipt and allocation of funds was entrusted to two, equally multilateral institutions, the Nordic Environment Finance Corporation and the British NGO, The Advisory Committee on Protection of the Sea. Management authority, as per UNEP/GEF policy, would be a Project Steering Committee, whose multi-party, highly collaborative form mirrors the Arctic Council's.[75] Despite not being a cash investor in the NPA-Arctic, Minekomrazvitiya wrangled with the Steering Committee for four years to ensure that it was designated the "Executing Agency," thereby retaining a nominal form of decision authority. Never did Minekomrazvitiya contribute more than about $200,000 to rent an office for the NPA team (see **Table 1** for the respective cash contribution from various project partners).[76]

The NPA-Arctic scoped four outputs whose goal was, ultimately, to "ensure long term protection of coastal and marine environment of the Arctic and to address main root causes of trans-boundary pollution in the Russian Arctic."[77] These were:

1. *Induce the Russian government to adopt a fully national Strategic Action Program* (SAP) that is harmonious with UNEP's global, land-based pollution strategies.
2. *Complete pre-investment studies* that would draw foreign capital into remediation projects on 15 of the most serious Russian Arctic "hot spots."[78]

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[74] UNEP & Minekomrazvitiya, *An Official Presentation of the UNEP/GEF Project "Russian Federation - Support to the National Plan of Action for the Protection of the Arctic Marine Environment."*
[75] UNEP & Minekomrazvitiya, "NPA-Arctic (Support to the National Programme of Action for the Protection of the Arctic Marine Environment)."
[76] UNEP & Minekomrazvitiya, *NPA-Project Document (Version 3, June 2005)*; Tambiev, "Personal Communication."
[77] Konygin, *Mid-Term Review of the UNEP/GEF Project*, 13.
[78] The Project Office prepared a list of Arctic "hot spots," which included information from previous studies, data from a 2003 joint Arctic Council/NEFCO study, state data from 2000-2008, and further GEF-funded studies undergone during the scoping phase in 2001 (termed the Project Development Grant Block-B, or "pdf-b", completed in 2001).

3. *Complete what would become 15 demonstration projects*[79] that exhibit best practices in (1) algae-based water treatment, (2) safe transfer of radioactive, military waste to civilian control, and (3) collaborative environmental management models for indigenous territories.
4. *Conduct diagnostic research into Russia's environmental 'komplex'*. UNEP initially deferred responsibility for this ambiguous output to "federal agencies of the Russian Federation responsible for the environment protection." [80]

III. Drawing Russia's Attention: the NPA Projects

UNEP/GEF did not intend to take large-scale, ameliorative action itself. The NPA-Arctic was meant to spur the Russian government to substantiate its own environmental policy ambitions through the use of knowledge production in the form of demonstration projects. What follows are analyses of three, representative NPA-Arctic projects. The ideal result of the knowledge transfer that these projects embodied would be for the Russian government to *autonomously* enact a policy that codified national-scale, Arctic-specific pollution prevention strategies, specific remediation measures, and target dates for their completion.[81]

a. Creating Ethno-Ecological Councils

[79] The NPA-Arctic originally planned for three projects, but as work got underway it drew positive attention from northern indigenous administrations, foreign aid programs, and the Russian federal government. The NPA-Arctic eventually completed 15 projects, and by the end of 2008, the Russian State Duma would host a culminating round-table to digest lessons-learned. See full project completion summaries in S.B. Tambiev and B.P. Melnikov, "Demonstration and Pilot Projects: Outputs and Outcomes, Their Assessments and Scaling up in the Arctic Context," *Scientific World*, 2011, and Holoubek and Sutkaitis, *Terminal Evaluation of the UNEP/GEF Project "Russian Federation – Support to the National Programme of Action for the Protection of the Arctic Marine Environment*, 14.
[80] UNEP & Minekomrazvitiya, *NPA-Project Document (Version 3, June 2005)*, 6, 17.
[81] Ibid., 6,7.

The project, "Environmental Co-Management" intended to serve as a model of collaborative governance over territories of traditional nature use (or TTNUs) in the North. The intention was that the project might spur Moscow to enact a formal, legislative provision for collaborative governance councils over TTNUs. In fact, the project intersected with Moscow very little, despite generating significant good will and increased local knowledge among participants.

The project team began by educating indigenous regional government officials in the production and use of geographic data to create TTNU maps. The production of the maps laid the collaborative foundation for the primary project output: model "ethno-ecological councils" in which representatives from federal ministries, extraction companies, and indigenous communities would make cooperative decisions over natural resource management in their respective regions. Trial councils got underway in Yamal-Nenets and Yakutia, though they were never officially instituted in legislation. [82]

The Co-Management project failed to influence the federal bodies whose attention it was meant to grab.[83] The NPA-Arctic team drafted a federal law that would legislatively provide for the creation of ethno-ecological councils, create TTNU zoning laws, and require anthropological assessments before extractive activities could take place.[84] The government paid lip service to these notions when it issued, in 2009 (the year of the project's completion), the seminal Concept for the Sustainable Development of the Small-Numbered Indigenous Peoples.[85] However,

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[82] Tambiev and Melnikov, "Demonstration and Pilot Projects: Outputs and Outcomes, Their Assessments and Scaling up in the Arctic Context," 7.

[83] It did have a loose affiliation with Moscow: the project received funding from a Danish-RAIPON-managed development fund, Batani. The Russian Duma's current Deputy Chairman of the North and Far East Committee, Vasily Usoltsev, serves on the board of the fund. See the Batani International Development Fund's website: http://batani.nichost.ru/joom/

[84] Ibid.

[85] *Rasporjazhenie Pravitel'stva RF Ot 04.02.2009 N 132-R <O Koncepcii Ustojchivogo Razvitija Korennyh Malochislennyh Narodov Severa, Sibiri I Dal'nego Vostoka Rossijskoj Federacii>*.

RAIPON, the Russian indigenous organization, would comment in sequent years on the Ministry of Regional Development's paltry to non-existent follow-through on the Concept's goals.[86] That this Ministry was disbanded in 2014 gives a sense of its importance in federal policy. RIAPON does cite the draft law on TTNUs as a would-be achievement, though there is no sign that the Duma ever adopted it.[87]

In sum, the Co-management project attempted to elicit new, indigenous-focused policies from Russia's federal ministries. The NPA-Arctic would achieve this by cataloguing traditional knowledge and modeling collaborative governance (read: behavioral influence). It is possible that regional officials from Minekomrazvitiya and Minprirodi participated at some point in the life of the project, but in the end Moscow remained largely aloof.

b. Cleaning up Franz-Josef Land

In contrast, the NPA-Arctic's two projects inventorying and demonstrating rehabilitation techniques on heavily polluted, decommissioned military and polar research sites in Franz-Josef Land received generous federal support.[88] At issue were the "extremely highly hazardous" quantities of heavy-metals seeping out of vast arrays of corroded, leaking oil drums abandoned on former-Soviet military bases.[89] It was initially estimated that up to 50,000 tons of fuel and engine lubricants had sat for over 20 years on the islands.[90]

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[86] "Russia's Policy toward the Indigenous Peoples of the North."
[87] RAIPON, "Chto Sdelano?," 14.
[88] These projects were "Pilot Project: Inventory of Pollution Sources at the Decommissioned Military Sites on the New Siberian Islands, 2010" and "Rehabilitation of the Environment near the Decommissioned Military Facility on the Franz-Josef Land Archipelago, 2007"
[89] Tambiev and Melnikov, "Demonstration and Pilot Projects: Outputs and Outcomes, Their Assessments and Scaling up in the Arctic Context," 49.
[90] Konygin, *Mid-Term Review of the UNEP/GEF Project*, 27; Tambiev and Melnikov, "Demonstration and Pilot Projects: Outputs and Outcomes, Their Assessments and Scaling up in the Arctic Context," 49.

The archipelago had been one of the seminal targets for Arctic Council intervention at least as far back as 2001. Photos taken during preparation of the NPA-Arctic made their way to the desk of then Prime Minister Putin, and by 2010 the scope of the project expanded 1,000 miles eastward to include the New Siberian Islands. Funding and media attention swelled. Putin visited Franz-Josef Land in 2011 to appear live on camera with an anesthetized polar bear and give a speech on the need to clean-up Russia's heritage in the Arctic.[91] The newly-cleaned island in Franz-Josef Land were incorporated into the newly-created Russian Arctic National Park (which was previously limited to the northern tip of Novaya Zemlya). Funding expanded, too: the government allocated another $10 million,[92] and Russian Ministry of Defense earmarked 25 million through 2012 specifically for a base renovation.[93] The island projects also received generous support from Russia's *Polyarnyi Fond*, the prestigious Arctic research organization run by the president's Special Representative of the Artic, celebrity polar explorer Artur Chilingarov (it was Chilingarov that piloted the submarine that placed the Russian flag on the Arctic sea floor in 2007).

The island cleanups were NPA-Arctic's most popular and broadly successful endeavors because they relied on knowledge production that lent itself to spectacle. The work was also quantifiable and easily communicated (number of drums removed, milligrams of lead detected per kilogram of soil, etc.). The knowledge produced by the cleanups served as a mechanism to draw Russian defense institutions into positive, vertical interaction with the Arctic Council's remediation goals.[94] The transfer of priorities was so successful, in fact, that the Polyarnyi Fond

[91] Nilsen, "Enviro-Cleanup at Franz Josefs Land Started."
[92] ITAR-TASS Ural, "'General'naja Uborka' v Arktike Nachnetsja V Mae."
[93] Holoubek and Sutkaitis, *Terminal Evaluation of the UNEP/GEF Project "Russian Federation – Support to the National Programme of Action for the Protection of the Arctic Marine Environment*, 23.
[94] Gehring and Oberthür, "The Causal Mechanisms of Interaction between International Institutions," 37–40.

and FSB assumed full control of the projects. [95] Essential to this success was the strategic role the islands' held in Russia's dual schemes to resuscitate its Arctic military presence and expand tourism. Removing the thousands of noxious drums cleared the path for reopening the FSB's northern-most border guard station, Nagurskoye (Franz-Joseph Land) and the Kotelnyi Island air base (New Siberian Islands). A hotel was even built on Alexandra Island, the site of the first NPA-Arctic cleanup project.

c. Authorizing a Strategic Action Program

Of all of the NPA-Arctic's outputs, to none did UNEP/GEF and Minekomrazvitiya ascribe as much singular importance as to the so-called Strategic Action Program (SAP). An SAP is a systematic, GEF-designed "best practices" scheme for governing land-based pollution in any national context.[96] They are meant to embody Gehring and Oberthür's notion of a "commitment mechanism," whereby a source institution (i.e. GEF) induces a target state to pass legislation aligned with the source institution's environmental goals, thereby "vertically" consolidating governance over a shared issue area .[97] Put simply, GEF hands off responsibility for environmental action to the target state by inducing it to adopt an SAP modeled on GEF's oceans governance priorities.

A task team comprising Russian academics, officials, and international consultants drafted the SAP over the nearly ten-year life of the NPA-Arctic. Inducing the relevant Russian institutions to adopt the SAP would ensure that Russia would "ensure a legacy of sustained and

[95] Chilingarov, Gruzinov, and Sychev, *Essays on the Arctic Geography*, 95.
[96] Holoubek and Sutkaitis, *Terminal Evaluation of the UNEP/GEF Project "Russian Federation – Support to the National Programme of Action for the Protection of the Arctic Marine Environment*, 2.
[97] See discussion in Chapter 1.

systematic national interventions" once the NPA was completed.[98]The team ultimately succeeded, and in June of 2009, the Russian Maritime Board—Russia's highest-level, interagency maritime governance body—formally endorsed the SAP. The SAP was a culminating task-list that in one way or another touched upon the entirety of Russia's legislative and administrative apparatus. It was the environmental management version of Russia's autonomously-produced, economic development-oriented Russian Federation Policy for the Arctic to 2020, published in March that same year.

UNEP/GEF's intentions for SAPs is that they instantiate oceans governance goals in concrete, national policies. Reading the SAP, it is hard to see what, if any, novel laws, regulations, policies, or activities it will actually compel Russia to enact.[99] It is nearly identical to the NPA-Arctic's scoping documents, yet it does not propose any specific projects. It does proffer quantifiable performance indicators, albeit very ambitious and sweeping ones (for example: 100% cleanup of the coastal water areas of the Arctic seas and islands from abandoned and sunken ships, metal scrap, and solid waste).[100] The fact that, one year later, the Arctic Council would *again* call upon UNEP/GEF to "accelerate implementation" of the SAP betrays the fundamentally minor role that the SAP plays in Russian policy-making (wasn't implementing the SAP supposed to be Russia's responsibility?).[101] The Russian government, in promulgations like the Concept for the Sustainable Development mentioned above, may express many of the

[98] UNEP & Minekomrazvitiya, *NPA-Project Document (Version 3, June 2005)*, 12.
[99] Downloadable in English from GEF's International Waters document repository at http://projects.inweh.unu.edu/inweh/display.php?ID=5047
[100] *Strategic Action Programme for Protection of the Russian Arctic Environment*.
[101] Arctic Council, *Proposal for the GEF-Russian Federation Partnership on Sustainable Environmental Management in the Arctic ("Arctic Agenda 2020")*.

same environmental ambitions as those expressed in the SAP,[102] and yet UNEP/GEF must still raise millions in funding from World Bank, the EBRD, and others to see them actually fulfilled.

IV. The Lasting Influence of the NPA-Arctic in Russian environmental policy

The NPA-Arctic was the first program with which the Arctic Council attempted to link Russian national institutions into the Arctic's wider land-based pollution regime. A 2010 program evaluation lists the NPA's modest policy outputs as the following: completion of 15 demonstration projects and 16 pre-investment studies, knowledge and data-rich reports submitted to Minprirody and other ministries, the Marine Board's passage of the SAP, and Minekomrazvitiya's submission of a draft law on special regimes for arctic resource management to the Russian Federation Council for review.[103] The notion of a special Arctic legal regime did in fact make its way into Russian policy-making, at least conceptually: the 2015 edict establishing the new State Committee for the Arctic names the creation of such regimes as a priority.[104] At present, however, Arctic-specific natural resource laws remain an ambition.

UNEP/GEF intended the pilot and demonstration projects to be knowledge-producing activities that would, in theory, draw interest from foreign investors and motivate Russian institutions to adopt more effective governance mechanisms. The projects produced knowledge outputs that were quantifiable, achievable in the short-term, and relatively low-cost. Foreign organizations provided funding, and implementation required little more from Russian institutions than in-kind contributions of staff, equipment, and office space. The island cleanups were the most widely celebrated of these projects, and had spectacular success enlisting Russian

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[102] see GEF's comments on Russian laws adopted around the time of the signing of the SAP in *GEF "Arctic Agenda 2020" Project Framework Document*, 11–12.
[103] Holoubek and Sutkaitis, *Terminal Evaluation of the UNEP/GEF Project "Russian Federation – Support to the National Programme of Action for the Protection of the Arctic Marine Environment*, 15–17.
[104] *Postanovlenie Pravitel'stva RF Ot 14.03.2015 N 228 "Ob Utverzhdenii Polozhenija O Gosudarstvennoj Komissii Po Voprosam Razvitija Arktiki."*

institutions. However, the cleanup was a media component of Putin's wider initiative to remilitarize the Arctic. That such one-off cleanup activities represent a fundamental environmental policy shift is, in the words of the NPA-Arctic's program evaluators, only "moderately likely."[105] Other NPA pilot projects, such as the use of brown algae to clean the oil-streaked Kola Bay or the TTNU project in Yakutia and Yamalo-Nenets, triggered little to no federal attention. They simply did not intersect with Russia's strategic priorities for the Arctic.

The extent to which the NPA catalyzed any new policy commitments, whether national or international, is questionable. The closest evidence we have of NPA-induced commitment making is the Marine Board's approval of the SAP. The Board's blessing of the document by no means demanded, in a legal sense, enactment of any concrete legislation. The Russian government's simultaneous publication of its own national Arctic Policy to 2020 belies the notion that the NPA-Arctic—a low-budget, glacially-paced, externally-funded initiative with cycling staff—uniquely induced Russian federal institutions to adopt new commitments beyond what was already being developed autonomously. That the modest NPA-Arctic teams induced the Marine Board to adopt the SAP is an achievement to be sure, but one more symbolic than substantive.

Did the decade-long program produce the hoped-for effect of spurring the Russian government to take broad action to curb land-based pollution of the Arctic Ocean? Little more than Russia would likely have done already. It did nonetheless produce a wealth of knowledge about the Russian Arctic that continues to inform national and international policies over this region.

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[105] Holoubek and Sutkaitis, *Terminal Evaluation of the UNEP/GEF Project "Russian Federation – Support to the National Programme of Action for the Protection of the Arctic Marine Environment*, 21.

CONCLUSION & DISCUSSION

This paper has relied on Gehring and Oberthür's typology of the causal mechanisms of capacity improvement to assess a selection of green-wave, international interventions in the Russian environment. These case studies revealed the occasions wherein target linking, commitment making, behavioral influence, and knowledge production played respective roles in influencing Russian institutions to take sustainable, environmental action.

The Joint Norwegian-Russia Fisheries Commission leveraged the power of behavioral influence, target linking, commitment making and knowledge production to compel the Russian Fisheries Agency to accept mutual policing, shared compliance policies, and a unified quota allocation process.[106] Scientific research has increased knowledge about stock dynamics, which both states' agencies have converted into improved management practices and regulatory compliance.[107] Linking quotas to credible science from the ICED increases mutual trust among Commission delegates. This social capital in turn solidifies each state's commitment to mutual enforcement.[108] This successful, horizontal integration is an exception to the theory that Russia strongly rejects state-to-state arrangements requiring sovereignty forfeitures for the sake of policy congruence.[109] It is critical to note, however, that each state's proximate commercial interests demanded this congruence.

The Global Partnership's legacy waste cooperation with Rosatom, which relies primarily on Rosatom linking its clean-up targets to the IAEA's, has had mixed success. This is partially a function of the profusion of funding and contractual arrangements, and of foreign countries'

[106] Hønneland, *Making Fishery Agreements Work : Post-Agreement Bargaining in the Barents Sea*.
[107] Stokke, "Management of Shared Fish Stocks."
[108] Ibid.
[109] Wilson Rowe and Torjesen, "Key Features of Russian Multilateralism," 3.

increasingly limited access to sensitive information.[110] Though the highly securitized nature of legacy waste information would be predictable from any state, Russia's Arctic re-militarization and the souring of relations with Western donors exacerbate this impedance. Lastly, Rosatom's relative deference to the IAEA should be understood in light of the enormous sources of funding this triggers. Such compliance testifies less to the power of target linking as a mechanism for influence than to the extent of Western countries' willingness to pay to eliminate radioactive threats.

The Black Carbon Initiative relied exclusively on knowledge production to catalyze Russian interest in updating its monitoring methodologies. The US did not intend Russia to link its emissions targets to any international standards, as no such standard yet exists. The EPA had only standardized its monitoring methods in 2009.[111] The initiative's ambition was to convince Russia of its own national interest in following the US's lead on improving black carbon monitoring methods, if only for the sake of public health. The very low politics nature of the effort is enabling this cooperation to continue despite the higher-level political cleavage caused by Russia's invasion of Ukraine. The only viable channel for exerting influence may remain the transference of knowledge through the multilateral medium of the Arctic Council.

This theoretical basis enabled an assessment of the Arctic Council's capacity to use knowledge production to influence Russian national institutions. Critically, however, and unlike other Council programs that coordinate multilateral research, the NPA-Arctic tried to intervene directly into Russian policy-making by transmitting the knowledge it generated into draft laws. None of these laws were ever passed, though in one case Minprirodi passed a draft law to the Duma for review.

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[110] Wilson Rowe and Torjesen, "Key Features of Russian Multilateralism."
[111] EPA, "Black Carbon Report to Congress," 11, 115.

The NPA-Arctic's vast store of data had a decidedly minor role catalyzing legal or policy change. The 2009 Strategic Action Program, to which power players Artur Chillingarov and Dmitri Medvedev lent signatures, is an arguable exception. It is clear, though, that economic and strategic development of the Arctic, enshrined in the simultaneously-produced Russian Policy for the Arctic to 2020, superseded the preservationist ambitions of the Strategic Action Program. The spectacularly successful cleanup of Franz-Josef Land was possible simply because the Arctic Council's interests perfectly coincided with Russian strategic ones. Russian investment in multilateral environmental efforts flows where it is determined to be visibly profitable (Rowe recounts a telling incident wherein an Arctic Council member country had to pay Russian Foreign Ministry Officials' airfare to attend a routine meeting[112]). These four case studies demonstrate that Russia will in fact take on new commitments, adapt its environmental targets, or act on new knowledge on those occasions where doing so candidly intersects with tangible economic or strategic interests.

The EPA and Arctic Council case studies reveal a dynamic in environmental cooperation with Russia that recurs in many sources for this paper: namely, the powerlessness of the delegates that Russian agencies send to the Arctic Council.[113] Offendal argues that the Arctic Council states, like all states, rarely submit critical national decisions to multilateral fora.[114] In this sense, Russia's retention of exclusive authority over internal decisions is not exceptional. What is exceptional, however, is the degree to which Russia's Arctic Council delegates are powerless to affect these decisions. The NPA-Arctic, in contrast with Iceland's and Canada's NPAs, enlisted a swath of low-ranking Russian Arctic experts with limited national influence. As

[112] Rowe, "Russian Regional Multilateralism: The Case of the Arctic Council."
[113] Wilson Rowe and Torjesen, "Key Features of Russian Multilateralism"; Offendal, "Oil, Gas and the Environment"; EPA, "Personal Communication."
[114] Offendal, "Oil, Gas and the Environment," 147.

Trenin and Lo argue, lack of political capital among experts characterizes bureaucracies that lack strong administrative protocols and are run instead by favored individuals.[115] Russian Arctic experts are distant from the primary levers of power, and are insecure proposing multilateral action in the Russian North, a strategically vital energy-producing region where Russia does not recognize a clear line between environmental cooperation and matters of national security.[116] The disarmament career of Russia's current Arctic Council SAO, Anton Vasiliev, speaks to this fact. Arctic Council programs thus do not meaningfully improve Russian institutions' environmental problem-solving capacity because the Russian representatives assigned to work on them are under-authorized. If the Arctic's land-based pollution problem is primarily a Russian land-based pollution problem, then the Arctic Council's land-based pollution regime is weak because it penetrates Russia so superficially.

The Arctic Council's modus operandi is to avoid high politics and to generate influence through the production of knowledge. Ideally, this knowledge motivates national policy changes that, in aggregate, benefit the whole region. Speaking generously, the ten-plus year NPA-Arctic was one of several Russia-focused Arctic Council research projects that have collectively widened global knowledge of and interest in the Russian Arctic, its ecological nuances, and its role in Russian environmental management. Like in the Black Carbon Initiative, the focus on demonstrations and research was an oblique means by which to register an influence on Russia's environmental ministries.

Ultimately, it is likely that the impediments to the Arctic Council's work presented by Russia's invasion of Ukraine will dissolve in the medium- to long-term. Member states recognize that it is in their self-interest to sustain common environmental action on critical climate-change-

[115] Trenin and Lo, 2004, cited in Wilson Rowe and Torjesen, "Key Features of Russian Multilateralism."
[116] Rowe, "Russian Regional Multilateralism: The Case of the Arctic Council."

related projects like black carbon mitigation and oil spill prevention. All interviewees for this paper commented on their Russian counterparts' genuine appreciation for and desire to collaborate. An EPA interviewee was optimistic that, at the minimum, US scientific institutions will still be able to interact with Russian ones, if only through multilateral channels.[117] Rowe stresses that, among its more strategic foreign policy engagements, Russia assigns the Arctic Council limited priority. This low priority is precisely the Council's strength, making it uniquely resilient to higher-level machinations in member countries' foreign policies. This sheltered position keeps doors open for the power of collaborative knowledge production to slowly, incrementally induce collective action to protect the Arctic.

[117] EPA, "Personal Communication."

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