palgrave pivot

FUTURE SECURITY OF THE GLOBAL ARCTIC

State Policy, Economic Security and Climate

Edited by

Lassi Heininen

Future Security of the Global Arctic

DOI: 10.1057/9781137468253.0001

Other Palgrave Pivot titles

Liam Magee: **Interwoven Cities**

Alan Bainbridge: **On Becoming an Education Professional: A Psychosocial Exploration of Developing an Educational Professional Practice**

Bruce Moghtader: **Foucault and Educational Ethics**

John K. Roth and Carol Rittner: **Teaching About Rape in War and Genocide**

Robert H. Blank: **Cognitive Enhancement: Social and Public Policy Issues**

Cathy Hannabach: **Blood Cultures: Medicine, Media, and Militarisms**

Adam Bennett, G. Russell Kincaid, Peter Sanfey, and Max Watson: **Economic and Policy Foundations for Growth in South East Europe: Remaking the Balkan Economy**

Shaun May: **Rethinking Practice as Research and the Cognitive Turn**

Eoin Price: **'Public' and 'Private' Playhouses in Renaissance England: The Politics of Publication**

David Elliott: **Green Energy Futures: A Big Change for the Good**

Susan Nance: **Animal Modernity: Jumbo the Elephant and the Human Dilemma**

Alessandra Perri: **Innovation and the Multinational Firm: Perspectives on Foreign Subsidiaries and Host Locations**

Heather Dubrow: **Spatial Deixis in the Early Modern English Lyric: Unsettling Spatial Anchors Like 'Here,' 'This,' 'Come'**

Felicity Callard and Des Fitzgerald: **Rethinking Interdisciplinarity across the Social Sciences and Neurosciences**

Catrin Norrby and Camilla Wide: **Address Practice AS Social Action: European Perspectives**

Alastair Ager and Joey Ager: **Faith, Secularism, and Humanitarian Engagement: Finding the Place of Religion in the Support of Displaced Communities**

Øyvind Kvalnes: **Moral Reasoning at Work**

Neema Parvini: **Shakespeare and Cognition: Thinking Fast and Slow through Character**

Rimi Khan: **Art in Community: The Provisional Citizen**

Amr Yossef and Joseph Cerami: **The Arab Spring and the Geopolitics of the Middle East: Emerging Security Threats and Revolutionary Change**

Sandra L. Enos: **Service-Learning and Social Entrepreneurship in Higher Education: A Pedagogy of Social Change**

DOI: 10.1057/9781137468253.0001

palgrave pivot

Future Security of the Global Arctic: State Policy, Economic Security and Climate

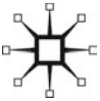
Edited by

Lassi Heininen

University of Lapland, Finland

palgrave
macmillan

DOI: 10.1057/9781137468253.0001



Softcover reprint of the hardcover 1st edition 2016 978-1-137-46824-6

First published 2016 by
PALGRAVE MACMILLAN

Palgrave Macmillan in the UK is an imprint of Macmillan Publishers Limited, registered in England, company number 785998, of Houndmills, Basingstoke, Hampshire RG21 6XS.

Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, NY 10010.

Palgrave Macmillan is the global academic imprint of the above companies and has companies and representatives throughout the world.

Palgrave® and Macmillan® are registered trademarks in the United States, the United Kingdom, Europe and other countries.

ISBN: 978-1-137-46825-3 PDF
ISBN: 978-1-349-56142-1

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

www.palgrave.com/pivot

DOI: 10.1057/9781137468253

Contents

DOI: 10.1057/9781137468253.0001

DOI: 10.1057/9781137468253.0001

Preface

The chapters of this book, as well as those of another Palgrave Pivot publication, *Security and Sovereignty in the North Atlantic* (November 2014), are based on the sessions of the 'Security in the Arctic' panel at the inaugural Arctic Circle in Reykjavik, Iceland, held in October 2013 (see www.arcticcircle.org).[1] This international, academic panel – organized by the University of the Arctic's and the Northern Research Forum's joint Thematic Network on Geopolitics and Security – was an ambitious effort to bring researchers and experts on security, from different disciplines and all over the Arctic region, together to discuss broadly security in, and of, the Arctic region, and further on the existing and emerging changes in its state, as well as in the premises and paradigms of security. The panel can also be taken as a contribution to the debate, whether there, either in the Arctic or globally, is a need for an international forum to address the security dimension, and/or whether the Arctic Council's agenda should be revised and broadened to include security-political and military matters.

Note

1 The panel "Security in the Arctic" included the following sessions: first session, 'Changes in a State of Security in the Arctic' concentrated on the changes in a state, as well as the evolution, of Arctic security architecture/agenda, and on actors of security and their roles. The second session, 'The Nexus of Extractive Industries, the Environment and

DOI: 10.1057/9781137468253.0002

Climate Change – An Arctic (Security) Paradox', included perspectives to the combination of rapid climate change, mass-scale utilization of fossils, opening of new sea routes and importance of energy security, or an Arctic 'paradox'. The third session, 'Future History of (State) Sovereignty and (National) Security in the Globalized Arctic' discussed on future history of (state and resource) sovereignty and 'paradiplomacy'. And, the fourth session, 'Historical, Current and Future North Atlantic Security', focused on the microstates of Iceland, the Faroe Islands and Greenland, as well as looked at the role of small states, Denmark and Norway, and that of the United States as a super power in the region.

DOI: 10.1057/9781137468253.0002

Acknowledgments

The editor thanks the organizers of the Arctic Circle for including the panel of the 'Security in the Arctic' in the program of this inaugural international conference in Reykjavik, Iceland, on October 12–14, 2013 (see www.arcticcircle.org), and supporting the young participants of the panel. Finally, warm tanks belong to the authors of the chapters who were also among the speakers of the Security Panel at the 2013 Arctic Circle event.

DOI: 10.1057/9781137468253.0003

Notes on Contributors

Matthias Finger holds a PhD in Political Science and a PhD in Adult Education from the University of Geneva. He has been an Assistant professor at Syracuse University, New York, an associate professor at Columbia University, New York and Full Professor of Management of Public Enterprises at the Swiss Federal Institute of Public Administration. Since 2002, he holds the Swiss Post Chair of Management of Network Industries at the Ecole Polytechnique Fédérale in Lausanne, Switzerland. Since 2010 he also directs the Florence School of Regulation's Transport Area at the European University Institute in Florence, Italy. Finger is the coeditor-in-chief of the Journal *Competition and Regulation in Network Industries*. He is also a member of the Swiss electricity regulatory authority (ElCom) and the vice president of the Swiss railways regulatory authority (SKE).

Lassi Heininen holds a PhD in Social Sciences. He is Professor of Arctic Politics at the Faculty of Social Sciences, University of Lapland, Finland. He is also Docent of Northern Geopolitics at University of Oulu, Finland; a visiting professor at the University of Akureyri, Iceland; and Director of International Summer School in Karelia at Petrozavodsk State University, Russia. He teaches and lectures regularly abroad and supervises PhD students from Arctic countries. His research fields include IR, geopolitics, security studies, environmental politics, Russian studies and Arctic studies. He is the author of more than 200 scientific publications and is the editor of *The Arctic Yearbook*. His recent works works include 'Northern

DOI: 10.1057/9781137468253.0004

Geopolitics: Actors, Interests and Processes in the Circumpolar Arctic' in *Polar Geopolitics: Knowledges, Resources and Legal Regimes* (2014); 'Arctic Strategies and Policies – Inventory and Comparative Study' (2011); *Globalization and the Circumpolar North* (coeditor C. Southcott) (2010). He actively participates in international scientific conferences, seminars and workshops as well as at gatherings implementing the interplay between science and politics. He is also the chairman of Northern Research Forum's Steering Committee and the leader of the Thematic Network on Geopolitics and Security.

Pertti Joenniemi is a visiting scholar at the Karelian Institute, University of Eastern Finland. Previously he was senior research fellow at the Copenhagen Peace Research Institute (1996–2002) and Danish Institute for International Studies (2003–2011). He has extensively published on regionalization around the Baltic Sea rim space, cross- and transborder cooperation and international relations in Northern Europe.

Steven L. Lamy is Vice Dean for Academic Programs in USC's Dornsife College of Letters, Arts and Sciences and a professor at the University of Southern California's School of International Relations. As Vice Dean, he oversees all undergraduate and graduate programs in Dornsife College. He holds a PhD in International Relations from the University of Denver. His areas of expertise include international relations theory, foreign policy analysis, the foreign policies of the United States, European States, Australia, New Zealand and Canada, and teaching and curriculum development in IR. He has published over 45 articles and book chapters in these areas. Oxford University Press published his most recent book, *Introduction to Global Politics*, in 2010 (the second edition was published in 2012). His current work on global governance focuses on both environmental issues and human security. Lamy has held several major administrative posts at USC such as Director of the School of International Relations from 2001 to 2006. He has received 22 awards for excellence in teaching from both his colleagues and his students and over 15 grants from both private and public sources for research in foreign policy and program development. He is a regular contributor to major international relations conferences and workshops. He served as an associate editor of *International Studies Perspectives*, and on the editorial board of the *Journal of Political Science Education* and several book series including Paradigm Press' International Studies Intensives.

DOI: 10.1057/9781137468253.0004

Michał Łuszczuk holds a PhD in Political Sciences. He is an assistant professor in the International Relations Department in Maria Curie Sklodowska University in Lublin, Poland and the postdoctoral fellow in the Department of Northern Europe Countries in Jan Kochanowski University in Kielce, Poland. He is a member of the Committee on Polar Research of the Polish Academy of Sciences (for 2011–2014) and an expert of the Polar Task Force in the Polish MFA. In 2012 he became a member of the Thematic Network on Geopolitics and Security organized by the University of the Arctic and Northern Research Forum. He is also a Summer Arctic College Fellow 2012. His interests cover the geopolitical roles of the Arctic and non-Arctic actors in the region, Arctic regionalism, development of the EU Arctic policy and the Polish Arctic policy. His papers and presentations are available at http://umcs.academia.edu/MichalLuszczuk.

Heather N. Nicol is a professor at Trent University, Ontario, Canada. She is a political geographer with interests in the Canada-US Border, the circumpolar North, and Canada-Cuba relations. Her work explores the structure and operation of the Canada-US border with special emphasis on the impacts of security. She is also interested in the circumpolar North as a geopolitical and geoeconomic space and the relationship between the interests of nation-states and indigenous peoples in the North. Nicol is currently the principal investigator for an SSHRC-funded project on the implications of globalization for Arctic borders.

Alexander Sergunin has a PhD (History) from Moscow State University (1985) and Habilitation (Political Science) from St. Petersburg State University (1994). He teaches international relations theory and Russian foreign policy at St. Petersburg State University and Higher School of Economics. His fields of research include international security theory, cross- and transborder cooperation in Northern Europe, Russia's security policies and the Arctic region in world politics. His recent books include *Contemporary International Relations Theories* (2013) (with V. Konyshev et al.); *Military Strategy of the Contemporary State* (2012) (with V. Konyshev); *Laboratories of European Integration: City-Twinning in Northern Europe* (2012) (with P. Joenniemi); *The Arctic in International Politics* (2011) (with V. Konyshev); and *The EU-Russia Common Space on External Security* (2011).

DOI: 10.1057/9781137468253.0004

List of Abbreviations

AC	Arctic Council
ACIA	Arctic Climate Impact Assessment
AEPS	Arctic Environmental Protection Strategy
AMEC	Arctic Military Environmental Cooperation
BC	Black Carbon
BEAC	Barents Euro-Arctic Council
BMD	Ballistic Missile Defence (System)
BP	British Petroleum
BRC	Barents Regional Council
BRICS	Brazil, Russia, India, China and South Africa
CAF	Canadian Armed Forces
CBC	Cross-Border Cooperation
CBMs	Confidence(and Security)-Building Measures
CBSS	Council of Baltic Sea States
CCG	Canadian Coast Guard
CHOD	Chiefs of Defence (of the Arctic States)
CJOC	Canadian Joint Operations Command
CO	Carbon Monoxide
COP	Conference of Parties (United Nations Framework Convention on Climate Change)
COSCO	China Ocean Shipping (Group) Company
CTA	City Twins Association
DoD	Department of Defense (of the United States)
EEZ	Exclusive Economic Zone
Enmod	Environmental Modification Convention
ENPI	European Neighbourhood and Partnership Instrument
ETC	European Territorial Cooperation
EU	European Union

DOI: 10.1057/9781137468253.0005

EU CBC	European Union's Cross-Border Cooperation
FSB	Federal Security Service (of Russia)
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GHG	Greenhouse Gas
IASC	International Arctic Science Committee
ICC	Inuit Circumpolar Council
IGBP	International Geosphere – Biosphere Programme
IMO	International Maritime Organization
INSROP	International Northern Sea Route Programme
INTERREG	Innovation & Environment Regions of Europe Sharing Solutions
IPCC	Intergovernmental Panel on Climate Change
IPN	Idemitsu Petroleum Norge
IR	International Relations
ISIS/ISIL	Islamic State of Iraq and Greater Syria, or Levant
ISS	International Space Station
NATO	North Atlantic Treaty Organization
NCM	Nordic Council of Ministers
ND	Northern Dimension (of European Union)
NEP	Northeast Passage
NF	Northern Fleet (of Russia)
NGO	Nongovernmental Organization
NIPR	National Institute of Polar Research (of Japan)
NMHC	Non-Methane Hydrocarbon
NOAA	National Oceanic and Atmosphere Administration (of the United States)
NORAD	North-American Aerospace Defence Command
NOx	Nitrogen Oxides
NSR	Northern Sea Route
NWP	Northwest Passage
O_3	Ozone
OC	Organic Carbon
OPEC	Organization of Petroleum Exporting Countries
OPRF	Ocean Policy Research Foundation (of Japan)
POP	Persistent Organic Pollutant
PRIC	Polar Research Institute of China
SAR	Sear and Rescue
SIPRI	Stockholm International Peace Research Institute

DOI: 10.1057/9781137468253.0005

SO_2	Sulphur Dioxide
SOE	State-Owned Enterprise
SSBN	Strategic (Nuclear-Powered) Submarine with Ballistic (Nuclear-Warhead) Missiles
UN	United Nations
UNCLOS	United Nations Convention of the Law of the Sea
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
USGS	US Geological Survey
WMD	Western Military District (of Russia)
WW	World War

DOI: 10.1057/9781137468253.0005

1

High Arctic Stability as an Asset for Storms of International Politics – an Introduction

Lassi Heininen

Abstract: *In spite of the exploding Middle East, the ISIS's and Israel's aggressions, the Ukrainian war, the continuous fight against terror and all the manipulation and falsification, the international community is facing bigger challenges, such as worldwide nonmilitary human catastrophes (e.g., the Ebola virus); global environmental challenges (e.g., unavoidable global warming); holistic environmental degradation (e.g., the 'Arctic Paradox'); structural societal problems of the global system (e.g., inequality between the elites and the masses), and going beyond the carrying capacity. This introduction argues that the globalized Arctic with high stability and keen international cooperation could be left out of all this and be interpreted as a human-made asset. It could act as a common ground to test soft ways of governance and alternative ways to definite security.*

Keywords: asset; Cold War; common ground; global challenges; international cooperation; regional crises/wars; stability; the global Arctic

Heininen, Lassi, ed. *Future Security of the Global Arctic: State Policy, Economic Security and Climate*. Basingstoke: Palgrave Macmillan, 2016. DOI: 10.1057/9781137468253.0006.

In the autumn of 2014, when I wrote this introduction, the air was full of misinformation and disinformation, rumors, manipulation and falsification and anger by several actors (governments, armies and their agencies, TV and radio channels and newspapers and social media) due to several regional and local wars and constant warfare, as well as human catastrophes. Those include civil war kind of warfare in Syria, Libya and Sudan; wars on religion and/or due to the legacy of a fight against international terrorism, like in Afghanistan, Iraq and Somalia; hybrid kind of warfare, for example, the Syrian crisis that started as a civil war; a new kind of very rapid and aggressive conquest of vast territories by the ISIS/ISIL (Islamic State of Iraq and Greater Syria, or Levant)[1] and an establishment of a caliphate by the Islamic State, which led, consequently, to a worldwide and US-led continuous fight against international terrorism and religious Muslim extremism or salafi-jihadism; and, finally, a shift of a guerilla kind of urban city warfare into a real war in Eastern Ukraine.

The last one, and the annexation of Crimea by the Russian Federation, was much emphasized in Europe, and said to mean a new 'Cold War' (in Europe). In its cover, *TIME* magazine (August 4, 2014) stated that 'Cold War II' has already started. Further, that there is 'a high probability' that the Russian military will intervene in (Eastern) Ukraine, as North Atlantic Treaty Organization (NATO) Secretary General Anders Fogh Rasmussen stated (*TIME*, August 25, 2014, p. 5; see also Rifkind, 2014, p. 16), which would require NATO to 'stand strong against a resurgent Russia'. This raises another thought that maybe the rhetoric is due to the fact that in the major member states of NATO there is seen a need to have NATO back to its roots. Indeed, the NATO Summit in September 2014 strongly reacted to the Ukrainian crisis and Russia's annexation of Crimea, which can be taken as an indicator of Realpolitik's return. Actually, it has been discussed for some years, particularly after the Georgian War in 2008, that the enlargement of NATO toward the East to the borders of the Russian Federation will decrease the interest of Russia to cooperate with the West, as well as make Russia unwilling to become integrated into Western institutions, such as the European Union. All this had caused political instability in Europe and increased mistrust between Russia and the United States (e.g., Trenin and Weiss, 2013), despite some joint campaigns against international terrorism and a manifestation to press reset by the foreign ministers of these two states. According to diplomatic messages, leaked by Wikileaks, there were several political efforts supported by the United States, not necessarily by

DOI: 10.1057/9781137468253.0006

European major member states, to tie Ukraine with NATO that Russia will not accept. It was even taken into consideration that, if Ukraine joins NATO, Russia will most probably annex Crimea (e.g., Muhonen, 2014).

In the background of all these is the fact that the Western military alliance has not been so successful in fulfilling its new missions of military crisis management and the fight against international terrorism in Afghanistan and elsewhere, as is clearly seen by the new raise of insurgency and violence in Afghanistan after the ISAF (International Security Assistance Force) operation. These were outside the original geographical area of NATO, and they broadened Article V of the NATO to protect the parties, as they have agreed that 'an armed attack against one or more of them in Europe or North America shall be considered as attack against them all' (*NATO Handbook*, 1989, p. 14). In the recent fiscal, economic, political and moral crisis in many European countries there is no political will to allocate resources to continue this kind of activities, if you can avoid it. Behind is the fact that in the 1990s, the NATO had an identity crisis due to the end of the Cold War, and there were even suggestions that NATO should disband, due to the collapse of the Soviet Union and the termination of the Warsaw Pact. This was not allowed to happen – winners hardly feel a need to give up their power structures – and instead the military alliance was enlarged in Europe beyond the borders of the former socialistic bloc, and a new mission was found. Instead, the Western military alliance started its enlargement to the East, and to soften relations with the Russian Federation established in 2002 the NATO-Russia Council to discuss, as well as try to solve together, security issues. Although this strategic partnership and cooperation was given the most priority in NATO's Strategic Concept of 2010, it did not really function and in fact failed, and the NATO Summit 2014 did not really focus on long-term prospects of the NATO-Russian relations (Klein and Kaim, 2014, p. 1). Now, with recent changes in Europe due to the Ukrainian war and Russia's growing military activities the NATO again redefines itself, or simply takes back the original mission, the defense of the Western Europe.

All this sounds a bit different as were the – rather misleading or too optimistic – prognoses of the end of history inspired by the fall of the Berlin Wall at the turn of 1980s–1990s (e.g., Fukuyama, 1992), and the statements by Western major powers that the West, as well as capitalism and democracy, has won. Now there are slogans and titles that 'Realpolitik', or Geopolitics in general, is back by claiming that a

DOI: 10.1057/9781137468253.0006

new 'Cold War' has started. Although the atmosphere in the summer and autumn of 2014 indicates of, and reminds us about, 'Realpolitik', this is a bit misleading, since we still live in the unified state system, with nuclear weapons as both political weapons and military threats, and that geopolitics has been there all the time, though taken over by geoeconomics and global financial liberalism. The slogans of a new 'Cold War' are more self-predictive prognoses and wretched slogans, or signs of frustrations, than analytical diagnoses on the current state of international politics. It is not focused on ideological, political, economic and cultural competition on the efficiency of production and rivalry between two different superpowers and blocs, as the Cold War's global conflict was. Instead of the Cold War period, we may refer to the period of World War I, 'the war without an end' has, so far, lasted 100 years, and its legacy still lives. Or, 'the never-ending war on terror' that should end, as President Obama declared (Crowley, 2014) (or which has already been ended according to the 'the mission accomplished' statement by President W. Bush), though actually it, as well as the threat, has become even more global.

The latter one shows that the situation is more complicated, the scale is broader or global, the post–Cold War world order seemed to be much more complex and multipolar than it was thought, and not to be determined by the 'Pax America'. An example of this is the existence of the BRICS cooperation – between Brazil, Russia, India, China and South Africa – with ambitious institutional cooperation (e.g., a joint development bank) and growing mutual confidence between these five large, though much different, powers and emerging economies. In spite of the current fiscal and economic crisis, which has also stagnated their growth, this new kind of cooperation and potential alliance challenges the existing world order and shows the pluralism of the global world. Also, the Ukrainian crisis/war is more complicated than a new Cold War, or an issue of Russia's intention to enlarge its territories, or to conquer back the borders of the former Soviet Union (e.g., Trenin, 2014; Sergunin, 2014).

More importantly, the international community is facing bigger and unpredicted challenges and serious irrational violence than the exploding Middle East, including the ISIS's, other extreme groups' and Israel's state terrorism, or the Ukrainian war including the warfare in Eastern Ukraine and the annexation of Crimea by Russia: first, worldwide nonmilitary human catastrophes, such as the Ebola virus as a zoonotic

DOI: 10.1057/9781137468253.0006

disease (Walsh and Sifferlin, 2014); second, global environmental challenges, such as unavoidable rapid climate change and global warming, such as loss of sea ice and that of glaciers, and the consequent 'climate vs. capitalism' conflict; third, holistic environmental degradation accelerated by the 'Anthropocene' (see Finger in this volume), such as the 'Arctic Paradox' (e.g., Palosaari, 2012); fourth, structural societal problems and challenges of the global system, such as the faith of constant growth, poverty, growing greed, the unsolved cumulative – from fiscal, economic and political to moral – crises of the Western system, and the consequent inequality between the elites and the masses with a possible 'irreversible collapse' (Ahmed, 2014); and final, according to rough calculations by the middle of August (2014) the inhabitants of the globe had already used all the annual natural resources, which should belong to us according to the criteria of sustainable development.

Going back to the current situation of regional conflicts and the fight against international terror there is no direct connection between them and the current situation in the Arctic region, at least not so far, but reflections and indirect impacts. The Ukrainian crisis, and the war there, has wrought tension between Russia and its Arctic neighbors casting a shadow over Arctic affairs, particularly the Arctic intergovernmental cooperation, if not outright putting them into danger. The first ever boycotting of Arctic Council meetings is an example of this, though it was also influenced by the disagreement of Canada and Russia over the North Pole (e.g., Heininen, Exner-Pirot and Plouffe, 2014)

Following this, there is a growing and legitimate concern that due to this situation the current era of high political stability of the Arctic may be lost (Heininen, 2014a). Also, the United States, supported by other NATO member states, and the Russian Federation have obviously become rivals, and there is a potential conflict of interests between them: Russia is economically and (geo)politically, as well as partly militarily, involved in the conflict. The United States is also (geo)politically and economically involved in it, as are the other NATO member states following (solidarity) Article V of the NATO. As a result, six of the eight Arctic states – Canada, Iceland, Kingdom of Denmark, Norway and the United States (as NATO member states) and Russia – are involved in the conflict in some way or the other. Actually even the rest of the Arctic states – Finland and Sweden (the two non-NATO member states) – are involved in the crisis economically and politically due to the sanctions by the European Union.[2]

DOI: 10.1057/9781137468253.0006

Interestingly, some years ago it was predicted by some journalists, politicians and even scholars that in the Arctic a new Cold War is emerging, and that a 'scramble' for the Arctic has been started, for example, 'Cold War in the Arctic' in *Times Online*, in September 2009 and 'The Battle for the North Pole' by Der Spiegel, in September 2008. Furthermore, there were some cynical comments that although the Arctic states may be talking on cooperation, they are actually 'preparing for conflict' (Huebert, 2010).[3] The slogans of emerging conflicts and a race on resources were media sexy, and much due to the Russian expedition to the bottom of the North Pole in 2007 regulated by the rules of UN Convention on a Law of the Sea (UNCLOS), as well as the competition (between Canada and Russia) to control the North Pole because of globalization and its flows in the Arctic region (e.g., *Globalization and the Circumpolar North*, 2010), the geostrategic importance of the Arctic in world politics and the global economy is increasing (Heininen, 2005). Not surprisingly there were different opinions on Arctic geopolitics: the first discourse (e.g., Heininen, 2010) emphasized, and still emphasizes, the achieved stability – that there is no rearmament in the Arctic, and the Arctic states have done only limited modernization (Wezeman, 2012); the second discourse challenged this by predicting a 'scramble' for the Arctic emerging conflicts and a race of natural resources, as mentioned earlier. It was much supported by international media as well as the hypothesis of a research project, *Geopolitics in the High North* (2008), that 'security in a military-strategic sense is about to experience a renaissance' in the Arctic.

All this sounds like an academic dialogue or political debate, and thus is normal in academia and politics, but can also be much misleading. We, who did not admit something that was neither really happening nor we could see any signs of, were however right (e.g., see Heininen, Sergunin and Yarovoy, 2014).[4] Also, among the Arctic states, as well as among the Arctic Council observer states, there was, and is partly still, a consensus that there are no military conflicts in the Arctic region, not even emerging ones, but a high stability based on multilateral – both intergovernmental and interregional – cooperation. The Arctic states even started ad hoc military cooperation in the context of climate change with a plan of annual meetings of the commanders of the armies.

Owing to the fact that the high stability and intensive cooperation is human-made and an achievement by the eight Arctic states, Northern

DOI: 10.1057/9781137468253.0006

indigenous peoples and several nonstate actors, the situation can be changed. Therefore, a timely and relevant question is whether high stability is in danger, or at least in a real test, first time since the end of the Cold War due to the conflictual situation of international politics. Theoretically, the answer is yes: all this could mean that instead of the current low-military tension we might have growing political tension in the Arctic, as Luszczuk speculates in his chapter.

However, more relevant, and definitely more interesting, question is why those prognoses and slogans of a new 'Cold War' and emerging conflicts in the Arctic were not, yet, materialized. Furthermore, how the achieved high stability is so resilient. The answer lies on the fact that the stable and friendly Arctic has been, and is, so valuable for the Arctic region and its peoples, as well as for all the Arctic states, including the two major powers of the region, and for the entire Europe and Asia. The same attitude was, and despite some doubts is still, seen in the post–World War II Europe with the European Union as an outcome and guarantor of hard-won peace after the two devastating World Wars. This might sound pouring and is not media sexy, but this clearly shows the power of immaterial values and human capital, such as peace. Furthermore, this shows the power of soft methods, such as devolution and self-determination, in politics and governance, as well as the increasing geostrategic importance of the Arctic in world politics and the global economy.

The broader and more dark picture of the current state of the world gives one more reason to value the high stability of the Arctic region, that the Arctic is not isolated but keenly a part of the globe and is heavily impacted by globalization and its multifunctional effects; furthermore, that the globalized Arctic has its global implications and drivers that affect both the region and the rest of the globe, as it is described in the *GlobalArctic* project (www.globalarctic.org). Recent industrial developments, such as aggressively expanding exploitation of minerals and (off-shore) hydrocarbon resources due to increasing resource demand, on the one hand, bring new and more dangerous environmental and societal risks to the Arctic and its people(s) – they have already created the 'Arctic Paradox' – and on the other hand, have feedbacks related to global energy and natural resource systems. From this we can conclude that on the other hand, the 'Antropocene' is already at play in the Arctic, as Finger discusses in his chapter, and on the other hand, what happens in the Arctic matters on a global scale.

DOI: 10.1057/9781137468253.0006

To conclude, the Arctic region with its high political stability, as well as military structures based on the nuclear weapon systems of Russia and the United States, and with a keen international (mostly multilateral) cooperation, much initiated and supported by nonstate actors, could be interpreted to be positively 'exceptional' and left out of regional crises and wars and political and military tension. Here the Arctic and international Arctic cooperation would be and become a joint valuable, human-made asset between the eight Arctic states, as the International Space Station (ISS) acts for Russia and the United States and their space cooperation. Furthermore, here the Arctic / international Arctic cooperation would be a reserve for the future, the moment, when it is, again, needed to calm down and to press reset. The situation might come sooner than later, when the world, including Russia and the United States, is facing even more serious regional and irrational warfare than the threat by ISIS and the exposing middle East, that is, real big worldwide challenges and threats, such as immediate impacts of rapid climate change and the 'Anthropocene'.

In this kind of situation, the Arctic would act as a test ground and a workshop to examine and test soft ways of governance and brainstorm an alternative way to definite security by causing a paradigm shift (see Heininen in this volume). Here the two discourses are far too much state-centric. A more interesting feature of Arctic security is the coexistence of several concepts of security and its transformation from traditional and state-controlled security to human security with an emphasis on the environment, or economic development/security, and that they are closely related to each other making 'Arctic security' a special kind of phenomenon to influence the region and its geopolitics. With regard to the future securities of the global Arctic there are challenges, which go beyond state sovereignty and nationalistic security thinking.

* * *

The theme and focus of this publication is inspired first, that despite a lack of real nuclear disarmament the Arctic of the early 21st century is very stable and peaceful and is based on the institutionalized international cooperation between the Arctic states with different, partly competing, security interests; second, that a rapid and multidimensional change that has occurred in the Arctic region and caused an emerging phenomenon, the 'Arctic Paradox'; third, that the Arctic region has gone global and consequently, 'Arctic security', as well as 'Arctic geopolitics', is

DOI: 10.1057/9781137468253.0006

much influenced by globalization and other than military-kind-security global challenges, and correspondingly, this new geopolitical state of the Arctic has its global implications; and finally, that the transformation from the 'militarization' of the Cold War Arctic to comprehensive security of the post–Cold War Arctic was much inspired and pushed by the environmental 'awakening' of Northern Indigenous peoples and other nonstate regional and local actors (e.g., Hoogensen Gjörv et al., 2013; see also *Security and Sovereignty in the North Atlantic* by Palgrave Pivot, 2014b).

On the basis of this, the coexistence of several concepts of security in the Arctic is not a surprise, but a logical outcome of the transformation from traditional, military and state-controlled security (see Lamy and Luszczuk this volume) to human security with an emphasis on the environment, and a recognition of the Anthropocene (see Finger this volume), or economic development and security (see Nicol this volume), and that they are closely related to each other making 'Arctic security' a special kind of phenomenon to influence the region and its geopolitics (see Heininen this volume). This phenomenon includes different activities from traditional military defense to citizens' action and paradiplomacy (see Joeniemi and Sergunin this volume).

Notes

1 This extreme and fanatical jihadist group or army is said to be messianic, but it can be interpreted to be the most evil of all the possible 'bad' enemies, among the known ('loved' and 'bad') enemy pictures (see Harle, 1991, pp. 15–32).

2 Finland as a small Arctic state has also tried to soften, if not solve, the crisis, when the Finnish President Niinistö exercised crisis diplomacy in August 2014. President Niinistö met first President Putin in Sochi and then President Porosenko in Kiev, and thus, he kept the channels open for discussion and negotiations between the EU and Russia, as well as between Ukraine and Russia. Despite the cease-fire between Ukraine, the insurgents in eastern Ukraine and Russia among new NATO and EU member states there were skepticism about, even resistance against, this kind of diplomacy.

3 As a personal note from the time: If a speaker in an international conference on Arctic security did not mention in her/his speech about emerging (armed) conflicts in the Arctic, she/he was asked about that, as I was several times, and pressed to admit that there are, will become, conflicts. If she/he did not admit that, but said that in the region there is neither conflict in the

DOI: 10.1057/9781137468253.0006

foreseeable future nor obvious reasons for them, as I said several times, she/he was challenged by next speaker(s) and said to be wrong, as I was blamed a few times. This is nothing unusual or dramatic, but describes well the attitude among the 'hawks' and the confusion among media.

4 The report by Heininen, Sergunin, Yarovoy was a bit accidentally titled 'Russian Strategies in the Arctic: Avoiding a New Cold War'.

References

Ahmed, N. (2014) 'NASA-Funded Study: Industrial Civilization Headed for "Irreversible Collapse"?', *Earth Insight*, hosted by *Guardian*.

Crowley, M. (2014) 'The Never-Ending War', *TIME,* September 22, 2014, 20–23.

Fukuyama, F. (1992) *The End of History and the Last Man* (New York: Free Press).

Harle, V. (1991) *Hyvä, Paha, Ystävä, Vihollinen* (Jyväskylä: Rauhankirjallisuuden edistämisseura ry and Rauhan- ja konfliktintutkimuslaitos).

Heininen, L. (2005) 'Impacts of Globalization, and the Circumpolar North in World Politics', *Polar Geography* 29(2) (April–June), 91–102. Issue: Challenges of Globalization for the North.

Heininen, L. (2010) 'Pohjoiset alueet muutoksessa – geopoliittinen näkökulma' (The High North in a Change – Geopolitical Point of View)', *Politiikka* 1, 5–19.

Heininen, L. (2014a) 'The Achieved High Arctic Stability as an Asset for the Storms of International Politics', *BRE Review* 5, 18–19.

Heininen, L. (ed.) (2014b) *Security and Sovereignty in the North Atlantic* (Basingstoke: Palgrave Macmillan, Palgrave Pivot).

Heininen, L. and C. Southcott (eds.) (2010) *Globalization and the Circumpolar North* (Fairbanks: University of Alaska Press).

Heininen, L., H. Exner-Pirot and J. Plouffe (2014) 'Introduction', in L. Heininen, H. Exner-Pirot and J. Plouffe (eds.), *The Arctic Yearbook 2014 – 'Human Capital in the North, XX'* (Thematic Network on Geopolitics and Security, and Northern Research Forum – http://www.arcticyearbook.com).

Heininen, L., A. Sergunin and G. Yarovoy (2014) *Russian Strategies in the Arctic: Avoiding a New Cold War* (The Valdai International Discussion Club). Online.

DOI: 10.1057/9781137468253.0006

Hoogensen Gjörv, G., D. R. Bazely, M. Goloviznina and A.J. Tanentzap (eds.) (2013) *Environmental and Human Security in the Arctic* (Tonbridge, Kent: Routledge and Eartscan from Routledge).
Huebert, R. (2010) *The Newly Emerging Arctic Security Environment*. Prepared for the Canadian Defence & Foreign Affairs Institute.
Klein, M. and M. Kaim (2014) 'NATO-Russia Relations after the Newport Summit', *SWP Comments* 41, October.
Muhonen, T. (2014) 'Ukraina Wikileaksin mukaan', *Voima* 7, 24–26.
North Atlantic Trety Organization (1989) *NATO Handbook. An Alliance for the 1990's* (Brussels: NATO Information Service).
Palosaari, T. (2012) 'The Amazing Race. On Resources, Conflict, and Cooperation in the Arctic', in L. Heininen and R. Rouge-Oikarinen (eds), *Nordia Geographical Publications Yearbook 2011. Theme issue on 'Sustainable Development in the Arctic though peace and stability'*, Oulu: Geographical Society of Northern Finland, pp. 13–30.
Rifkind, M. (2014) 'NATO Faces Familiar Foe. The Western Military Alliance Must Stand Strong against Resurgent Russia', *TIME*, August 25, 2014, 16.
Sergunin, A. (2014) 'Russian Views on the Ukrainian Crisis: From Confrontation to Damage Limitation', in T. Flichy de la Neuville (ed.), *UKRAINE Regards Sur Une Crise* (Lausanne, Suisse: L'Age D'Homme), pp. 55–82.
TIME, August 4, 2014, Cover.
TIME, August 25, 2014, Briefing, 5.
Trenin, D. (2014). 'Ukraine and the New Divide', July 30, 2014, http://carnegie.ru/2014/07/30/ukraine-and-new-divide/hln1, date accessed September 2, 2014.
Trenin, D. and A.S. Weiss (2013) 'Dealing with the New Normal in U.S.-Russian Relations', December 20, 2013, http://carnegieendowment.org/2013/12/20/Dealing-with-new-normal-in-u.s.-russian-relations/gwto, date accessed July 7, 2014.
Walsh, B. and A. Sifferlin (2014) 'AFTER EBOLA. Why the Worst Outbreak Ever Is a Warning of What Could Come Next', *TIME*, August 25, 2014.
Wezeman, S. T. (2012) *Military Capabilities in the Arctic* (SIPRI Background Paper, March 2012).

DOI: 10.1057/9781137468253.0006

2

Security of the Global Arctic in Transformation – Potential for Changes in Problem Definition

Lassi Heininen

Abstract: *In security studies there are discourses, premises and paradigms of security, as well as discussion on who the subjects of security are. When it comes to the Arctic there are different stages, special features and a shift from military to environmental security due to nuclear safety. This chapter summarizes the transformation of Arctic security, analyzes the premise shift, compares national policies of, and responses by, the Arctic states. It also shows that due to the dualism of globalization – its impacts in the Arctic and its global implications worldwide – the region is facing more complicated challenges than the current military conflicts. Finally, the security dimension of climate change paves a way to argue that there is a potential to have a change in problem definition on security paradigm(s).*

Keywords: Arctic security; climate change; globalization; premise/paradigm shift; problem definition; the global Arctic; Transformation

Heininen, Lassi, ed. *Future Security of the Global Arctic: State Policy, Economic Security and Climate*. Basingstoke: Palgrave Macmillan, 2016. DOI: 10.1057/9781137468253.0007.

DOI: 10.1057/9781137468253.0007

In security studies there are discourses, and based on them different concepts of security, as well as defined premises and paradigms of security, particularly those of national security. There are also, and most importantly, actors, or subjects, of security defining the basic need to be secure, in a society, physical space, international environment, the world. When it comes to the security of the Arctic region, or the entire North, there are different stages and special features of, and other indicators of a transformation of, that is, changes in, Arctic security. Finally, there are also different methods to describe, analyze and (re)define a state of security and its changes nationally, regionally, worldwide, or based on alliances. A classical way of defining security is based on quantity, that is, to calculate the numbers of weapons, soldiers, arms production and trade, as SIPRI does annually in its reports, or, to concentrate on quality based on advanced arms technology, what kind of weapons and technology are owned by whom, or has an access to that. Another way is to analyze how different security discourses and concepts are implemented, how security premises are (re)defined and what kind(s) of changes there are in problem definition on security paradigms. Finally, a bit more unorthodox way is to analyze who are subjects of security.

This chapter opens, first, with a brief theoretical discussion on who the subjects of security are, how security is (re)defined and whether climate change would cause a change in problem definition on security. Second, it summarizes the different stages and special features of Arctic security, as well as major changes there. Third, the chapter discusses the dualism of the global-Arctic relationship: the Arctic faces more complicated challenges than regional conflicts, and the globalized Arctic has implications worldwide. Fourth, it briefly analyzes how national policies of the Arctic states see and define Arctic security, and respond to global (security) problems. Fifth, based on this dualism, and defining climate change as a security factor, the chapter argues the importance of an alternative way to redefine Arctic security and cause a paradigm shift.

About subjects of security and redefining security

There is no objective definition of security, but many interpretations on security. Originally security meant and traditionally is interpreted to mean 'unilateral competitive national military security' of a nation/nation-state, as Newcombe (1986) has put it. In this interpretation a state,

DOI: 10.1057/9781137468253.0007

or the 'state' as an institution, represented by its (security)political elite, is defined as the main subject of security. However, when defining security, and its premise(s) and paradigm(s), it has to be asked: whose security, or security for whom. Thus, several subjects of security can be identified, such as a state/nation, an individual/citizen, a society/societies and the international community (Heininen, 2013a, pp. 96–99).

If even individuals and peoples could be defined as subjects of security, there is a need to broaden the interpretation of traditional approach of security into a more comprehensive one. Indeed, the concept of comprehensive/common security, as well as new discourses on security, was launched in the 1970s and 1980s based on the United Nations' reports. This was supported by growing concern about the state of the environment, due to more pollution and environmental 'awakening' by people and civil societies. The new discourse on environmental security also argued that there is a keen interrelationship between the degradation of the environment and the military, even in peace time (e.g., Galtung, 1982; Heininen, 1994). This is caused by the use of minerals and energy, armament, routine activities of armies (e.g., polluting and causing GHGs), nuclear accidents and physical debris. Modern imperial wars are very destructive and expensive.[1] Even the disposing of biological, chemical and nuclear weapons and cleaning up of contaminated soil causes environmental impacts. Finally, despite the ENMOD Treaty there are plans for geoengineering, that is, modification of the environment for strategic purposes, although we do not have enough scientific knowledge on that yet.

Correspondingly, according to the discourse, human security (e.g., Hoogenson et al., 2013) focuses on everyday security of individuals, such as human health and food security, which is threatened by local and national issues (such as poverty), by natural catastrophes (such as drains), by environmental degradation (such as shortage of water) or by the 'Anthropocene' (such as climate change). Indeed, climate change threatens peoples and societies, and even puts state sovereignty in danger.

All this leads many governments to reinterpret and redefine security, at least in rhetoric, which broadens, though does not totally replace, the old-style thinking of traditional weapon-orientated security. This broadening of security breaks the mystified national security and brings individuals and people(s) to become subjects of security. The closely related

DOI: 10.1057/9781137468253.0007

concept of 'securitization' defined by the Copenhagen School means that almost anything is interpreted to be, or become, a security issue. On the basis of this, there are now several ways to understand security, and consequently, alternative ways to (re)define security premises and paradigms. Environmental or ecological security is intertwined with the environment, particularly environmental degradation, for instance, connected to long-range pollution and radioactivity. Nuclear safety – due to bigger risk of nuclear (submarine) accidents, leaking radioactivity, nuclear waste storehouses – became a real concern on the condition of the environment, and consequently a threat picture and the major field of environmental 'awakening' to Northern peoples in the 1980s and 1990s. Also, it made governments not only to recognize but also to start international cooperation on environmental protection in the Arctic, such as the Arctic Environmental Protection Strategy (AEPS) between the eight Arctic states and the Arctic Military Environmental Cooperation (AMEC) for the organization of technological cooperation between Norway, Russia and the United States. This has played an important role in the transformation of Arctic security, even though the official Arctic cooperation does neither include security policy nor the military.

Of course, there are already alternative security discourses and premises. Also, the traditional short list of subjects of security has been questioned and a request for more 'owners' of security stated when redefining security premises and paradigms capable of responding to the current challenges. As a result, security may become more politicized, but less mystified and controlled by a nation-state's security-political elite, as well as citizens would become subjects of security. This argument is valid, I think, even though it is said, as well as often experienced, that security is complex. This does not necessarily mean 'securitization' of the entire society, but more the decreasing of the omnipotent power of security-political elites to define, determine and control security. At the same time, it is important to recognize and admit that security is a sensitive issue, as national(istic) security with all its militaristic aspects clearly shows (see Newcombe, 1986). This is much the case with several regional wars and warfare against terror in the 2010s (see Introduction). There were also arguments that the 'securitization' of the environment strengthens authoritarian tendencies in environmental politics, and might even give a new mission to an army (Käkönen, 1994), due to the rapid climate change.

DOI: 10.1057/9781137468253.0007

Climate change causing changes in security premises and paradigm

Global – security and environmental – problems show that in the world there are changes and challenges that neither do respect (national) borders nor can be defined in terms of traditional security, and that are increasingly affecting peoples, nations and states (e.g., ACIA, 2004; Heininen, 2010). Rapid climate change – threatening food security of many peoples, forcing people to leave their homes and become environmental refugees and threatening state sovereignty – includes a security dimension and has become a new factor in security discourses (e.g., Gleditsch, 2008). Accelerated by difficulties and disagreements of international environmental (and climate) politics the environment has been upgraded from a field of 'low' politics onto one of 'high' politics (e.g., Nilsson, 2012). This paves way to (re)define climate change as a security factor and to emphasize the importance of a change in problem definition in security studies; a 'problem definition' *per se* is critical in research (e.g., Haila, 2001, pp. 17–20).

There are the first signs that climate change, particularly rapidly warming global climate, has been taken seriously due to its worldwide environmental and societal impacts (e.g., IPCC reports). Global warming and changes in precipitation have relevant impacts on human security, especially in cases with political and social characteristics of poverty, overpopulation and failed states. For example, in many parts of the Arctic there is no more continuous availability and access to country food: 'there is no civil security in a world where food safety, supply and quality is uncertain' (Paci et al., 2004).

When thinking climate change as a security factor it is important to realize that there are no definitive scientific evidence (by statistics), yet, that it can be seen as a direct potential to cause an armed conflict or war. Many internal conflicts are, however, climate related, and it might be the necessary factor for a violent conflict due to physical effects and 'the uncertainty associated with climate change' (Gleditsch, 2008). Rapid climate change is really a global problem putting the entire humankind to wait for and demand a solution. But what is the solution, when reduction in GHGs is too little and too late, international negotiations are not productive and legislation does not always give strict laws which will be respected?

There is, of course, adaptation as a general answer. An alternative way would be to cause a change in problem definition on traditional security

DOI: 10.1057/9781137468253.0007

premises and paradigm, as well as in our entire thinking of a nation-state as the only polity with a right to use violence when defending its (national) security, and by whom security premises and paradigms are defined (Heininen, 2013a). Behind this is, despite the recent brutal violence and systematic military actions, a learned lesson that neither military nor authoritarian solutions are real ones to be used in complicated (environmental and societal) conflicts. There is 'no solution to ecological or other problems [including climate change] once and for all' (Haila and Heininen, 1995) that can be given by the military. There is no military solution to human disagreements or conflicts; ecological problems is one more reason to emphasize that we should be clever and mature to understand that stability, as well as peace, is always human-made, as well as an asset for future that we can either maintain or lose. Also, climate change cannot be defined only as an environmental issue due to its impacts on people and their everyday life, as well as to societies. Here, climate change can be seen as a global factor to 'promote stability and peace between parties in conflict' (ibid.).

There is no paradigm shift, yet, due to climate change. It has known to include the potential for introducing new points of view in theoretical discourses on security and cause a paradigm shift in problem definition of security, as well as to cause cultural shift to develop a mindset for local sustainability. For example, food security has become an urgent global security issue due to climate change and requires a 'need for a paradigm shift in approach' (Girdwood Conference, 2013).

Different stages and features of Arctic security

In my earlier research (Heininen, 2010, 2013a) I have described and analyzed changes in the state of Arctic security by defining how the traditional security architecture has been developed since the World War II. Here I summarize the major stages and special features of Arctic security and the major changes.

The first major stage of Arctic security, following the first fight in the Arctic region in World War II, is based on the main idea of Classical Geopolitics to conquer (more) physical space and natural resources, and that of Realism to emphasize the nation-state as a natural power and force. In the second stage of the 'militarization' the Arctic was transformed into 'military flank', due to the arms race between the Soviet Union and the

DOI: 10.1057/9781137468253.0007

United States. It meant an implementation of the technology models of geopolitics. In the third stage, Northern seas were transformed into a 'military theater' due to the dominance of the maritime strategies of the two superpowers by the 1980s, which finally manifested the capability to implement the technology models. The fourth stage meant a fundamental shift in Arctic security 'from confrontation to cooperation' with an emphasis on 'environmental security', particularly nuclear safety. It was much due to the environmental 'awakening' by Northern indigenous peoples and environmental movements (e.g., Heininen, 2013b). The latest stage of the Arctic security architecture is dominated by high political stability of the Arctic together with contradiction of state sovereignty versus globalization. This means that the archived high stability of the region is challenged by fast, significant and mostly global change(s), as well as growing global interests toward the Arctic and its resources (e.g., Tonami in this volume).

The analysis of the special features of Arctic security reveals the complexity of Arctic security and the rich variety of security subjects. After the first feature I broaden the perspective from the traditional security architecture of the Arctic and show the shift from traditional toward comprehensive security. The first feature, the technology models of Classical Geopolitics, states that, if 'technology' allows, any physical space of the Earth will be used for 'military' purpose by a nation-state as the only security subject. As discussed earlier, these models have been successfully implemented in the Arctic, as the deployed nuclear weapon systems of Russia and the United States clearly indicate. Here a strategic (nuclear-powered) submarine with ballistic (nuclear-warhead) missiles (SSBN), one of the major elements and legacies of the Cold War, is both the strongest military weapon and a metaphor for global security problems in the world (Heininen, 1994, 2010). If in the Cold War the Arctic gave the shortest distance for the Russian and US long-range nuclear bombers, the (still) ice-covered Arctic Ocean is the most important sanctuary for SSBNs today.

Second, as an example of a keen interrelationship between the environment and the military a big part of environmental degradation in the entire North is caused by the military, that is, military activities in peace time (ibid.). This is much indicated by nuclear safety that became the most important functional field – as well as a media-sexy topic – of the international cooperation on Arctic environmental protection in the 1990s and the early 2000s (e.g., Heininen and Segerståhl, 2002). Here

DOI: 10.1057/9781137468253.0007

the forerunners and major subjects were Northern indigenous peoples' organizations, such as the Saami Council, environmental movements, such as Greenpeace, and one Northern Atlantic state, Iceland, which depends on fisheries. Fourth, due to this environmental 'awakening' indigenous peoples vis-à-vis security became another relevant feature of Arctic security. This meant a conflict of interests, in land use, between the military and reindeer herding as traditional livelihood, and also that indigenous peoples want(ed) to become involved in national security and equal subjects of their own security. Fifth, as an integral part of foreign and national security policies energy security started to play an important role in Arctic geopolitics by oil-depending countries, Norway, Russia and the United States. Finally, climate change has already caused a lack of traditional diet among indigenous peoples and thus threatened human security. The rapid and unavoidable climate change is interpreted to challenge state sovereignty, which has put Canada, for example, to increase its military presence in its maritime Arctic.

On the basis of these changes the current state of Arctic security architecture, as well as that of military policy of the Arctic states, is influenced and impacted by a few aspects: first, the nuclear weapon systems of Russia and the United States are still deployed there in the region and are modernized due to their strategic role in the global balance (e.g., Wezeman, 2012). Second, the Arctic Council (AC) and the Barents Euro-Arctic Council (BEAC), as the major intergovernmental regional institutions, do not officially deal with the military and security policy *per se* (see Ottawa Declaration, 1996), instead the AMEC includes radioactive wastes from the military. Third, NATO has not, so far, played any major role in the post–Cold War Arctic's security architecture, although there have been a few efforts toward that. Fourth, despite the slogan of 'the Arctic as a zone of peace', by Gorbachev (1987) and others, and a few arms control actions, real nuclear disarmament has neither taken place in the Arctic nor seriously negotiated between the nuclear weapon powers. Not even the UNs has shown big interest toward the Arctic, when it comes to disarmament and security dimension of climate change.

When comparing the major changes of Arctic security to those of Arctic geopolitics and circumpolar IR, such as increasing cooperation by indigenous peoples, region-building by nation-states (Heininen, 2004), there are a few similarities: on the one hand, the main shift from confrontation to cooperation and stability showing that geopolitics and security are keenly interrelated with each other; on the other hand, in the

DOI: 10.1057/9781137468253.0007

1990s and the early 2000s regional trends dominated in Arctic geopolitics and security, and in the 2010s there is the pressure by globalization and global flows.

Dualism of globalization in the Arctic

Globalization and its flows, as well as global problems, have been present in, and influenced, the Arctic region for some time, such as whaling and sealing fisheries (see Globalization and the Circumpolar North, 2010). Among the most relevant global problems influencing the Arctic are: first, the nuclear weapon systems (e.g., SSBNs),[2] military exercises, weapon's testing and Control, Command, Communication and Intelligence system with radars (e.g., Thule) representing global security problems; second, long-range air and water pollution (e.g., POPs, radioactive materials, new chemicals) and climate change representing environmental degradation with dramatic influence to the Arctic directly (e.g., the Arctic Ocean as a sink of pollutants) and indirectly (e.g., bioinvaders or invasive species occupying Northern regions (e.g., *TIME*, July 28, 2014); and third, the mass-scale utilization of resources and extractive industries to the region due to richness, not scarcity, of natural resources, particularly when it comes to hydrocarbons. On the basis of this, it is possible to say that most of the global problems in the Arctic deal with broadly understood security. For example, they together have created an emerging phenomenon, called the 'Arctic paradox' (e.g., Palosaari, 2011).

Indeed, it is not easy to separate the different concepts of security, since they are interrelated, and global environmental problems have also indirect impact to state sovereignty and national security. Also, the Arctic Council's observer states have direct influence on Arctic security by causing long-range air and water pollution, as well as on Arctic geopolitics by being involved in the discussions on the development of the Arctic, and indirect influence on Arctic security by Arctic shipping, which is a reminder that 'sea navies often follow cargo ships' (Blunden, 2012).

These notions open a new approach to examine Arctic security. Although the Arctic region is not isolated, and globalization is nothing new there, in the 21st century, on the one hand, the Arctic is more keenly a part of the globe and much impacted by globalization and its flows. On the other hand, the globalized Arctic has its worldwide implications that affect the rest of the world (see www.globalarctic.org). The Arctic plays

DOI: 10.1057/9781137468253.0007

a key role in the global ecosystem and biogeophysical processes that are heavily impacted by climate change and other global changes. They are closely integrated within the global economy and related energy security dynamics, as they relate to world politics. Its past, present and future are also closely linked to global megatrends, such as increasing resource demand as exemplified by rapidly expanding exploitation of minerals and (offshore) hydrocarbon resources and an increasing interest toward possible commercial use of the Northern Sea Route and trans-Arctic sea routes.

These recent industrial developments bring new and more dangerous environmental and societal risks to the Arctic and its people(s) (e.g., Sande, 2013; Hoogenson et al., 2013), and have feedbacks related to social, technical, economic and political dynamics of global energy and natural resource systems. No wonder that there is an increasing global attention and scrutiny over such activities and their potential impact on global climate change, habitat degradation, community health and welfare, as well as apprehensions over offshore drilling that have arisen from, for example, the Gulf of Mexico oil spill in 2010. While the Arctic Council has published a number of valuable assessments, including the ACIA (2004) and the recommendations for Arctic oil spill prevention and attention has been paid to natural and social scientists surrounding extractive industrial development, a comprehensive and long-term research program examining the impacts and linkages between industry, society and the environment with a clear focus on global geopolitical shifts has been lacking. The implementation of GHG reduction efforts by the Arctic states has, so far, been weak. They have been reluctant to adopt strict environmental regulations against the offshore petroleum industry, despite political rhetoric, and instead prefer environmental management (e.g., Sande, 2014). This political 'inability', which can be recognized as one of the current environmental problems in the Arctic (e.g., Stokke, 1990), stands in stark contrast to the commitment to environmental protection and sustainable development by the Ottawa Declaration.

This new state of resource geopolitics is the reason why the globalized Arctic includes the abovementioned Arctic paradox with the interrelations between the physical impacts of climate change on the one hand – melting sea ice resulting in better access to hydrocarbons, growing importance of resource geopolitics and energy security, growing mass-scale exploitation of offshore exploitation and more sea transportation, more GHGs and consequently less sea ice and so on – and on

DOI: 10.1057/9781137468253.0007

the other hand, a growing need to decrease GHG emissions and mitigate climate change. Indeed, this concerns much the energy sector that is globally 'the single largest emitter of GHG' (Bradshaw, 2012, p. 215). All this challenges the unique Arctic ecosystem, human security of peoples and global sustainable development, particularly when the Arctic states suffer certain 'political inability' to solve it.

The Arctic paradox also reveals that the Anthropocene is at play in the Arctic, as Finger discusses in his chapter. The current resource-focused development narratives accentuate the paradox and create a disconnection in relation to global environmental policy goals. There is also another more unorthodox point of view to think that much of the current rush for the utilization of natural resources in the Arctic is a power game by, and between, the (Arctic) littoral states and their state-owned enterprises (SOEs). And, that, there are more options to utilize energy recourses than real activities of utilization. Behind is energy security that has always been strategic and global, and at the early 21st century it became even more strategic and global. This means that it is important to show (to your potential allies and rivals) that you have options for access to these resources, and if the option is credible, it means more power.

Or, that in spite of the US Geological Survey (2008) on undiscovered oil and gas reserves in the Arctic, the amount of which is (too) much referred, there is still much uncertainty concerning the amount of hydrocarbons (e.g., Willis, 2011; *Energy Tribune*, August 12, 2013) due to the fact that these numbers are rough estimations. Or, that in spite of the first commercial shipping of oil from the Priratzlomnaya oil rig in April 2014 (Gazprom Neft, 2014), there is no promise of fast progress in offshore exploitation of oil and gas in the region. Or, that the shale gas revolution, including shale oil and sand oil, has already shaken the global energy markets and energy geopolitics by making the United States as a net producer instead of the biggest buyer of oil. Or, that renewable energy sources are easier to be used due to technology advancements, although the low price of the Brent oil in world markets easily decreases investments into the development of alternative energy sources. Or, that the price of the Brent oil is declining, either due to the global economy, or manipulated by Organization of Petroleum Exporting Counties (OPEC) (as a result of pressure from the United States to punish Russia whose foreign trade depends much on export of oil and gas, or due to the tactics by Saudi Arabia to not let the United States become a major player as oil producer (e.g., *Financial Times*, December 2, 2014, cover). Because of this, there is less eagerness for big investments

DOI: 10.1057/9781137468253.0007

to develop new (offshore) oil fields in the Arctic, as well as those of shale gas and oil in the United States. On the contrary, it is said that cheap oil together with other economic factors causing a decline of the oil price stimulate global economic growth (Stewart, 2014; see also Yergin, 1991). Or, finally that securing energy and putting energy security in the global scale has become (too) much 'politicized', as the speculation discussed indicates, which easily puts political stability in a danger, as well as greatly influences Arctic security. There is still one more final option, 'leave it ground'.

State policies and national strategies as responses

In the 1990s, the Arctic, particularly the Arctic Ocean, became recognized as an environmental linchpin for global environmental challenges and a sink of long-range pollutants, as well as a target area of rapid climate change. Because of this, the Arctic states had to react and started their cooperation for environmental protection, call for robust international treaties concerning the environment and sign agreements on pollution prevention and better industrial management to minimize environmental risks. In the Ottawa Declaration (1996) it is said among others that the Arctic states affirm their 'commitment to sustainable development in the Arctic, ... to the protection of the Arctic environment'. In the past 25 years the Arctic states and indigenous peoples have transformed the confrontational politics of the Cold War into meaningful cooperation and stability by adopting environmental protection as the main platform for functional cooperation, manifested in the AEPS. Thus, the Arctic is a region with an increasingly dense network of different (transnational) actors: indigenous peoples energetically emphasizing their cultural and political identities; subnational governments in charge of regional development seeking collaboration both within and beyond national borders, for example, via paradiplomacy (Sergunin and Joenniemi in this volume); NGOs with their concerns and ambitions to shape the discourse; academic communities producing knowledge, and thus shaping our understanding of the region. More recently, there has also been a trend toward the reconceptualization of sovereignty, with the argument that the Arctic agenda is no longer only about interstate relationships and economic activities, but also about realizing knowledge-based potential to implement sustainable use of resources.

DOI: 10.1057/9781137468253.0007

It is in this context that the Arctic states adopted their Arctic strategies and policies (in 2008–2011), all of which emphasize economic development as the major national priority ahead of environmental protection – a view that is also mirrored in the Arctic Council's Kiruna Vision in 2013. This shifting emphasis mirrors the 'boom' of growing national interests of the Arctic states and SOEs, in trying to benefit from better access to energy resources and improve their energy security (Nicol and Heininen, 2013). Among the main priorities of these national strategies and state policies is, on the one hand, a strong emphasis on economic and business activities – which is also shared by most of the AC observer countries – and, on the other, that of governance and environmental protection (for more details see Heininen, 2011).

These strategies do neither directly implicate a state of Arctic security (policy) nor show military doctrines of these states. When it comes to how Arctic security is seen, there are certain similarities between the states: first, an importance of international cooperation, as well as that of high stability, is acknowledged; second, maritime safety due to higher risks for shipping and navigation is emphasized (e.g., Agreement on Cooperation on Aeronautical and Maritime Search and Rescue under the auspices of the AC); third, health risks and well-being as a part of human security, particularly related to contaminants, are explicitly discussed; and fourth, food and/or water security is also mentioned by most of the strategies.

There are also differences between individual states and like-minded groupings. The most striking difference is between two groupings: the Arctic Ocean's littoral states clearly emphasize state sovereignty and national security and have more sophisticated and nuanced pictures by 'both – and' approach, when emphasizing the importance of national security. For example, Canada's sovereignty over its Arctic lands and waters is 'undisputed', and protecting Canada's maritime sovereignty in the Arctic is the first priority (see also Nicol in this volume). The Kingdom of Denmark's strategy has the priority of enforcement of sovereignty exercised by the 'armed forces through a visible presence'. And, it builds a linkage between the importance of security and protecting the economic base of Greenland. The Norwegian strategy is twofold: the presence of the Armed Forces to 'firmly' exercise sovereignty in the 'High North' including Svalbard as well as a regional stability by strengthening the cooperation with Russia are emphasized; and the document says that climate change has an impact on the security of countries and peoples.

DOI: 10.1057/9781137468253.0007

The Russian state policy is a pragmatic means for holistic domestic policy and development within, and for, the Russian Arctic to use the region as a principal source of natural resources. Interestingly, the documents indicate some sort of dualism, when it claims that for Russia the Arctic is both as 'a zone of peace', that is, an increase of international cooperation, and 'the sphere of military security', that is, clear messages of military defense for both international and domestic audiences (also Heininen, Sergunin and Yarovoy, 2014). Finally, in the United States, Arctic policy national security, defense of borders, maritime areas and 'freedom of the seas' are seen as top priorities, although, Arctic security concerns play a minor role in US defense policy, as Lamy discusses in this chapter.

By contrast to the previous approach the three nonlittoral Arctic states – Finland, Iceland and Sweden – emphasize neither (state) sovereignty nor national security. Instead they embrace a broad understanding of security, or comprehensive security, and the importance of international cooperation as a security factor. For example, Finland's strategy promotes 'safety in the wide sense' with international cooperation and treaties. Iceland's policy document states that security should be increased through international cooperation, and it emphasizes environmental security. For Sweden, security policy challenges of the Arctic are 'not of military nature', and consequently Sweden emphasizes that civil instruments are preferable to military means.

As a summary, the importance of international cooperation, within the Arctic Council, and the achieved high stability are acknowledged, and maritime safety is prioritized, by all the eight Arctic states. The Arctic region, though with high political stability, is politically and militarily fragmented with regard to security. It is possible neither to consider the region as a security community (e.g., Bergh, 2013), nor to interpret regional security as a proper and applicable concept there. The littoral states emphasize state sovereignty and national security, partly due to rapid climate change and globalization as new threats. In turn, the rest three emphasize comprehensive security and international cooperation as a means to increase the security of the region.

This way of grouping might look strange, since it does go neither along the membership of NATO, or that of the EU, nor along the borders of the Nordic Region, but crosses the former blocs of the Cold War period. Behind is, on the one hand, the geographical fact that the Arctic is first of all a sea area and therefore the UN's Convention on the Law of the Sea (UNCLOS) is applied there, and it has become

DOI: 10.1057/9781137468253.0007

the most powerful juridical means in the Arctic. On the other hand, there is the Ilulissat ministerial meeting between the governments of the five littoral states, organized in May 2008, rather soon after the Russian scientific expedition to the bottom of the North Pole in August 2007. By meeting the littoral states of the Arctic Ocean wanted to cool down a potential emerging conflict between them, and put a stop to the increased discourse on a wild race of natural resources in the Arctic. Therefore, they declared that there is no intention to make any actions to strengthen national interests compromising others' interests and agreed to have mutual understanding of the Arctic Ocean governance, where the UNCLOS is used as the legally binding agreement (Ilulissat Declaration, 2008).[3]

The Ilulissat meeting includes two interesting aspects: first, the declaration is a valid and valuable means for the littoral states to govern, as well as control, the 'high' Arctic, that is, the Arctic Ocean and its rim-lands, without any Arctic treaty. Particularly, when neither the nonlittoral states nor Northern indigenous peoples' organizations were presented in the meetings. It can also be interpreted as a counteract against the growing global interest toward the Arctic and its resources, since the AC observer countries cannot participate in the process. Second, it can be seen as a multinational soft law policy act that has an important aspect of confidence-and-security-building measures (CBMs). It strengthens the high stability of the Arctic and makes the further development more predictable by trying to avoid possible emerging conflict between the littoral states. Behind is the fact that the intergovernmental Arctic cooperation does neither include security policy nor the military (e.g., Ottawa Declaration, 1996); recently there has been discussion if it would be good to broaden the mandate of the Council by bringing in all aspects of security.

Finally, there is another, a bit surprising difference, between the national strategies, a lack of worldwide, global perspective, since only two strategies exclusively discuss on that, although globalization is nothing new in the Arctic: the Kingdom's Strategy asks for 'global solutions to global challenges', such as the rise in sea levels worldwide, and redefines the Kingdom's status in the Arctic as a 'global player'. The Finnish strategy describes the Arctic with new potential that stresses its strategic importance and global significance, such as the Arctic climate 'for the global climate'. This can be interpreted to indicate the mentioned latest stage of the Arctic security architecture, 'State sovereignty versus globalization'.

DOI: 10.1057/9781137468253.0007

Changes in problem definition on Arctic security

As discussed earlier, neither the Arctic region nor its geopolitical and security situation can longer be taken separately and studied independently of the global dynamics in the environmental, political and economic spheres. However, current understanding of the Arctic in the context of globalization is both incomplete and contradictory (e.g., *Arctic Yearbook 2013*) – where some have emphasized new opportunities, others see new threats or bigger risks. While connections between the Arctic and global environmental systems have a strong research base, previous research has never sufficiently considered emerging worldwide implications of the new geopolitical context. Thus, there is an urgent need to gain a better understanding of the economically and politically globalized Arctic in the context of rapid global change, including the implications of global drivers on the multifunctional dynamics in the Arctic. This gives background and pays my way to briefly discuss how changes of Arctic security deal with the problem definition of security discourses, premises and paradigms.

Interestingly for this chapter, those special features of Arctic security that deal with the environment, namely, nuclear safety and climate change, have caused a change in the problem definition of the security discourses and premises of the Arctic states. In the 1990s nuclear safety became the 'hot' issue in the Arctic, being interpreted as a threat picture, and caused a shift in security premises. Norway, Russia and the United States even institutionalized technological cooperation on nuclear safety through the AMEC in 1996, only two weeks after that of the Arctic Council, which does not deal with security policy (Heininen and Segerståhl, 2002).

Why did this happen, why was nuclear safety taken as an important field of Arctic cooperation, though almost all the nuclear wastes and installations were originally from and for the military? The main reason was the severe existing and potential consequences of radioactivity in the Arctic ecosystem that became more known by new reports, such as Arctic Monitoring and Assessment Program (AMAP) 2002, and that there was all the potential for a real environmental catastrophe. The Chernobyl nuclear accident and severe nuclear submarine accidents with radioactive leakages, such as the accident of the Komsomol class submarine in 1989, were already known, and therefore they acted as real threat pictures of the worst that could happen. There was also the

DOI: 10.1057/9781137468253.0007

growing pressure by local and regional nonstates actors, as well as global environmental movements, supported by the science community toward the governments to do something. Thus, for the Arctic states international Arctic cooperation for environmental protection, particularly for nuclear safety, was a 'multiwarhead missile' to eliminate a potential environmental catastrophe, and got good PR, as well as to control the new, much 'wild' Arctic cooperation between northern indigenous peoples and other nonstate Arctic actors.

At the early 21st century, climate change is said to challenge state sovereignty, as the Canadian government has stated, and caused changes in the military. For example, the US navy secretary has given an order to reduce its use of energy and dependence on fossil fuels (by half by 2020), and instead to use renewables, such as bio fuel (Du Maine, 2012). More obvious it challenges human security. Food security, including seed security and lack of traditional diet, is one of the new features of Arctic security. It is also a good and concrete example of a change in problem definition on security discourses by Indigenous peoples (e.g., Paci et al., 2004).

Also, there is a growing need to redefine local actors as 'new' subjects of security actively pressuring a paradigm shift, for example, through 'paradiplomacy' or other soft ways. For example, in and through, the 'environmental awakening' Northern indigenous peoples not only faced conflict of interests in land use and defended their rights, but also wanted to become involved in to (re)define their own (national) security. Thus, they became subjects of security, as the whole discourse on human security much indicates and encouraged by this experience. They have also started to redefine sovereignty and challenge the current state sovereignty in the Arctic (e.g., Inuit Declaration, 2009). Following this, when identifying who the subjects of security are, the picture is much more complicated than the old 'traditional, competitive, unilateral, military security' to guarantee state sovereignty and national security, as well as to prevail the traditional security paradigm dominated by security-political elite and supported by economic elite.

By causing a shift from traditional to comprehensive security nuclear safety legitimizes to conclude that it is possible to have a change in problem definition on Arctic security discourses and premises. However, despite this, and that the discourses on environmental and human security are taken seriously, there has not been real paradigmatic shift on security. Behind is the fact that we still live in the unified state system,

DOI: 10.1057/9781137468253.0007

where (national) security is mystified, though the first clear signs of a paradigm shift are already there.

Conclusion

Despite all the talks on a new 'Cold War' and scramble, the Arctic region is with high stability and peace, not overtly plagued by emerging conflicts. It is, however, influenced by constant global change(s) heavily impacting the environment and human security. Indigenous peoples and other nonstate Arctic actors share concern on the environment and climate change, but not that of national security. However, the Arctic states share same economic/business interests as well as the benefit of high stability and cooperation, and the littoral states share the priority of state sovereignty and national security. In spite of high stability, the Arctic, which is broadly interpreted as a joint achievement by the Arctic states, is politically and militarily fragmented in terms of security, and it is possible neither to consider the region as a security community, nor to interpret regional security as an applicable concept here.

When analyzing the state of Arctic security, as well as changes in that, based on the different stages and special features, it is possible to conclude that since the 1980s there has been a clear shift from traditional security to comprehensive one, much influenced by local and regional nonstate actors. Interestingly, this was accelerated by the fact that most of the special features of Arctic security deal with the environment. This came together with the significant geopolitical change, 'from confrontation to cooperation'. This was made possible to reach the current stability, and that the Arctic states have done only limited modernization in their military equipment and force level.

There have been both an 'explicit' change and an 'implicit' change in problem definition on security discourses and premises, though no paradigm shift, yet, due to the fragile Arctic ecosystem. This recent transformation of Arctic security is politically very relevant, academically interesting and even innovative. There is still a need for more changes in problem definition on security premises and paradigm(s), and climate change has all the potential to cause another one.

Finally, to some extent, so far, the calculated benefits of mass-scale utilization of hydrocarbons are seen as bigger than the costs and potential risks of severe impacts of rapid climate change. Or, the Arctic paradox

DOI: 10.1057/9781137468253.0007

is not, yet, seen as a real threat, although the Anthropocene is already at play in the region. These changes – earlier and potential ones – in Arctic security, however, indicate the basic importance of the environment, and that human beings are the major subjects of their everyday security. Now the question is, whether there will be a real paradigm shift in Arctic security or not. Much depends on the criteria by which Arctic states make their decisions on security and shape their national policies. At the same time, what happens in the Arctic region has impact on a global scale.

Notes

1 For example, the costs of the Iraq War were circa 2,000 billion euro and caused (from March 2003 to October 2007) about 141 million (equivalent) tons of CO_2 emissions (Reisch and Kretzman, 2008).
2 An example of the importance of the nuclear weapon states' club, as well as the importance of nonproliferation of nuclear weapons, is Japan, which has not given up an option of its own nuclear weapons despite the severe Fukushima nuclear accident (Kawano, 2013).
3 The Ilulissat Declaration (2008) is neither an international agreement nor directly deals with security. It is a strong statement that merged the major (national) interests of the littoral states together. It also makes the Arctic Five an exclusive and attractive club; for example, Iceland would like to be included in the club, and therefore tries to redefine the Arctic Ocean.

References

ACIA (2004) *Arctic Climate Impact Assessment*. (Arctic Council: Cambridge University Press).

AMAP (2002) *Arctic Pollution* (Oslo: Arctic Monitoring and Assessment Program).

The Arctic Yearbook 2013 – The Arctic of Regions vs. the Globalized Arctic (Thematic Network on Geopolitics and Security, and Northern Research Forum). Online. http://www.arcticyearbook.com

Bergh, K. (2013) 'Military-to-Military Relations in the Arctic', Paper presented at the International Studies Association (ISA) Annual Convention, April 4, 2013, San Francisco, USA.

Blunden, M. (2012) 'Geopolitics and the Northern Sea Route', *International Affairs*, 88(1), 115–129.

DOI: 10.1057/9781137468253.0007

Bradshaw, M. (2012) 'Russian Energy Dilemmas: Energy Security, Globalization and Climate Change', in P. Aalto (ed.), *Russia's Energy Policies National, Interregional and Global Levels.* (Cheltenhamn: Edward Elgar Cop), pp. 206–229.

Du Maine, B. (2012) 'Can the Navy Really go Green?', *Fortune*, September 17, 2012, 66–71.

Energy Tribune (2013) 'A Deal with the Devil? Arctic Drilling War of Attrition Begins Part Two', by Tim Daiss, August 12, 2013.

Financial Times (2014) Cover: 'Rouble Rocked as Oil Price Plunge Turns Up the Pressure on Russia', December 2, 2014.

Galtung, J. (1982) *Environment, Development and Military Activity. Towards Alternative Security Doctrines* (Oslo-Bergen-Trondheim: Universitetsforlaget).

Gazprom Neft (2014) 'First Oil from Russian Arctic Shelf Loaded', *JSC Gazprom Neft*, April 18, 2014, Press release, http://www.gazprom-neft.com/press-center/news/1101711/29.4.2014

Girdwood Conference (2013) 'Conclusions of the 8th Circumpolar Agricultural Conference & University of the Arctic Inaugural Food Summit', September 29 – October 3, 2013, Girdwood, Alaska, USA. (mimeo)

Gleditsch, N.P. (2008) 'The Liberal Moment Fifteen Years On', *International Studies Quarterly,* 52(4), 691–712.

Gorbachev, M. (1987) 'The Speech of President Mihail Gorbachev on October 2, in Murmansk', *Pravda*, October 2, 1987.

Haila, Y. (2001) 'Johdanto: Mikä ympäristö?', in Y. Haila and P. Jokinen (eds.), *Ympäristöpolitiikka. Mikä ympäristö, kenen politiikka* (Jyväskylä: Osuuskunta Vastapaino), pp. 9–20.

Haila, Y. and L. Heininen (1995) 'Ecology: A New Discipline for Disciplining?', *Social Text* 42 – Spring 1995 (Duke University Press), 153–171.

Heininen, L. (1994) 'The Military and the Environment: An Arctic Case', J. Käkönen (ed.), *Green Security or Militarized Environment* (Dartmouth: Dartmouth Publishing Company Limited), pp. 153–165.

Heininen, L. (2004) 'Circumpolar International Relations and Geopolitics', in *AHDR (Arctic Human Development Report)* (Akureyri: Stefansson Arctic Institute, Reykjavik, Iceland), pp. 207–225.

Heininen, L. (2010) 'Globalization and Security in the Circumpolar North', in L. Heininen and C. Southcott (eds.), *Globalization and the Circumpolar North* (Fairbanks: University of Alaska Press), pp. 221–264.

DOI: 10.1057/9781137468253.0007

Heininen, L. (2011) *Arctic Strategies and Policies – Inventory and Comparative Study*, updated April 2012 (Akureyri: The NRF & University of Lapland). Online: http://www.nrf.is/arctic-strategies.

Heininen, L. (2013a) 'Arctic Security – Global Dimensions and Challenges, and National Policy Responses', in G. Alfredsson, T. Koivurova and A. Stepien (eds.), *The Yearbook of Polar Law* Volume 5 (Leiden-Boston: Martinus Nijhoff Publishers).

Heininen, L. (2013b) 'Politicization' of the Environment: Environmental Politics and Security in the Circumpolar North', in B.S. Zellen (ed.), *The Fast-Changing Arctic: Rethinking Arctic Security for a warmer World* (Calgary: University of Calgary Press), pp. 35–55.

Heininen, L. and B. Segerståhl (2002) 'International Negotiations Aiming at a Reduction of Nuclear Risks in the Barents Sea Region', in R. Avenhaus, V. Kremenyuk and G. Sjöstedt (eds.), *Containing the Atom. International Negotiations on Nuclear Security and Safety* (New York: Lexington Books. International Institute for Applied Systems Analysis), pp. 243–270.

Heininen, L. and C. Southcott (eds.) (2010) *Globalization and the Circumpolar North* (Fairbanks: University of Alaska Press).

Heininen, L., A. Sergunin and G. Yarovoy (2014) 'Russian Strategies in the Arctic: Avoiding a New Cold War'. The Valdai Discussion Club, Grantees Report. Moscow, Russia, September 2014. www.valdaiclub.com

Hoogensen Gjörv, G., D. R. Bazely, M. Goloviznina and A. J. Tanentzap (eds.) (2014) *Environmental and Human Security in the Arctic* (Tonbridge, Kent: Routledge and Eartscan).

Ilulissat Declaration (2008) Arctic Ocean Conference, May 28. http://arcticcouncil.org/filearchive/Ilulissat-declaration.pdf.

Inuit Declaration (2009) 'A Circumpolar Inuit Declaration on Sovereignty in the Arctic', adopted by the Inuit Circumpolar Council.

Käkönen, J. (ed.) (1994) *Green Security or Militarized Environment* (Ipswich, Suffolk: Dartmouth Publishing Company Limited).

Kawano, S. (2013) 'Presentation on Nuclear Safety in Japan', in SRC/GCOE International Summer Symposium 'Border Studies: Challenges and Perspectives in the Twenty-First Century' on August 2–3, 2013, at Slavic Research Centre, Hokkaido University, Japan (personal notes).

DOI: 10.1057/9781137468253.0007

Newcombe, H. (1986) 'Collective Security. Common Security and Alternative Security: A Conceptual Comparison', *Peace Research Reviews,* 10(3), 1–8, 95–99.

Nicol, H. and L. Heininen (2013) 'Human Security, the Arctic Council and Climate Change: Competition or Co-existence?', *Polar Record*, FirstView Articles, February 2013. Available on CJO2013. doi:10.1017/S0032247412000666.

Nilsson, A.E. (2012) 'The Arctic Environment – From Low to High Politics', in *Arctic Yearbook 2012* (Akureyri: Northern Research Forum). http://www.arcticyearbook.com/images/Articles_2012/Nilsson.pdf

Ottawa Declaration (1996) 'Declaration on the Establishment of the Arctic Council', Ottawa, Canada, September 19, 1996.

Paci, J., C. Dickson, S. Nikels, L. Chan and C. Furgal (2004) 'Food Security of Northern Indigenous Peoples in a Time of Uncertainty', Position Paper for the 3rd NRF Open Meeting, Yellowknife, NWT, Canada, September 15–18, 2004.

Palosaari, T. (2012), 'The Amazing Race. On Resources, Conflict, and Cooperation in the Arctic', in L. Heininen and R. Rouge-Oikarinen (eds), *Nordia Geographical Publications Yearbook 2011. Theme issue on 'Sustainable Development in the Arctic though peace and stability'*, Oulu: Geographical Society of Northern Finland, pp. 13–30.

Padrtova, D. (2014) 'Russian Military Build-Up in the Arctic: Strategic Shift in the Balance of Power or Bellicose Rhetoric Only?', in *The Arctic Yearbook 2014* (Akureyri, Iceland: Nortehrn Research Forum), pp. 415–433. Available from http://www.arcticyearbook.com

Reisch, N. and S. Kretzman (2008) 'A Climate of War – The War in Iraq and Global Warming', *Oil Change International*, March 2008.

Sande, A. (2013) *Slaget om Lofoten. Olje eller verdensarv?* (Oslo: Akademisk forlag).

Stewart, J. B. (2014) 'As Oil Prices Slie, Count the Blessing', *International Wew York Times,* December 6–7, 9–10.

Stokke, O. (1990) 'Environmental Threats in the Arctic', in L. Heininen (ed.), *Arctic Environmental Problems*, TAPRI. Occasional Papers No. 41 (Tampere: Tampereen Pikakopio Oy), pp. 40–65.

TIME, July 28, 2014.

US Geological Survey (2008) 'USGS Arctic Oil and Gas Report: Estimates of Undiscovered Oil and Gas North of the Arctic Circle', July 2008, http://www.eurasiareview.com

DOI: 10.1057/9781137468253.0007

Wezeman, S.T. (2012) 'Military Capabilities in the Arctic', SIPRI Background Paper, March 2012, available at http://books.sipri.org/product_info?c_product_id=442

Willis, M. (2011) 'Arctic Oil? Don't Hold Your Breath', *Newsbrief*, 31(2) (March) (Royal United Services Institute, RUSI).

Yergin, D. (1991) *The Prize: The Epic Quest for Oil, Money and Power* (Simon & Schuster).

DOI: 10.1057/9781137468253.0007

3

Military Cooperation and Enhanced Arctic Security in the Context of Climate Change and Growing Global Interest in the Arctic

Michał Łuszczuk

Abstract: *Transformation occurring in the Arctic raises many questions about the specificity and prospects of the regional security, including the multi- and bilateral military relations among the Arctic states. It is significant that though the majority of security challenges and threats to the region are of a nonmilitary character, the view that the projection of military power is indispensable in the Arctic seems to be well founded. This chapter provides an overview of selected forms of military cooperation developed in the Arctic during the past decade and their impacts on the regional security. It concludes that this cooperation will have to prove its effectiveness in very new circumstances framed by the tensions growing in the other parts of the globe.*

Keywords: Arctic security; climate change; defense; military cooperation; military exercises; paramilitary; transformation

Heininen, Lassi, ed. *Future Security of the Global Arctic: State Policy, Economic Security and Climate*. Basingstoke: Palgrave Macmillan, 2016. DOI: 10.1057/9781137468253.0008.

Introduction

One of the main issues frequently raised within the debate on the ongoing geopolitical transformation of the Arctic[1] is the question of whether the region today faces a process of remilitarization that is bringing it to the brink of the next generation of rivalries and new conflicts (Huebert et al., 2012; Heininen, 2013; Le Mière and Mazo, 2014). This question seems to arise from at least two hidden assumptions, namely that the region has been thoroughly demilitarized since the end of the Cold War at the beginning of the 1990s and that military presence in the Arctic can be used only for belligerent purposes.[2] This chapter disagrees with both suppositions and aims to analyze some aspects of the recent military developments in the Arctic, arguing that a number of very specific geographical features of the region as well its strategic importance may help to understand why the military presence in the region is at least partially self-explanatory or even indispensable. These two factors have gained even more importance in the present day, when the consequences of climate change are making themselves known not only in the natural environment of the Arctic region, but also in the scope and character of human presence and activity in the circumpolar North. As Heininen (2008, p. 3) argues, "the North has recently witnessed a manifold growth in its strategic importance both geo-economically due to its rich natural resources, such as conventional oil and gas energy resources, and geostrategically due to the existence of the nuclear weapon systems, and its space for military testing and training". In addition, in focusing on various forms of military and paramilitary intraregional cooperation, this chapter suggests that these kinds of activities should not be recognized only as examples of constructive relations among the Arctic states, but also as mechanisms of intraregional cooperation aimed at maintaining the existing spheres of geopolitical influence in a time of growing global interest in the Arctic.

As it is thoroughly explained in the chapter presented in this volume by Heininen, Arctic security has therefore once again become a critical issue, even on the global agenda,[3] and its military dimension is still recognized as a pertinent matter (Perry and Andersen, 2012). However, the question of what kind of role it can play in the near future remains unanswered. As Rosamond (2011) argues, since the beginning of 1990s, the Arctic has experienced the many constructive effects of the processes of demilitarization, global governance and institutionalization, all of

DOI: 10.1057/9781137468253.0008

which replaced the clashes of the Cold War era. However, it is also not easy to counter Palosaari and Möller's (2003, p. 255) arguments that "the Arctic story is one of marginality, centrality, securitisation and desecuritisation, militarisation and demilitarisation" all taking place simultaneously. These authors note that militarization is still a key concept in the Arctic even though the majority of security challenges and threats to the region are of a nonmilitary character. Despite the widespread institutionalization of the Arctic and the quite effective soft-law regime supporting international cooperation, the region has not entirely escaped the geopolitical tensions emerging from the competition for using/controlling navigation routes – for example, in the Russian Northern Sea Route (Liu and Kronbak, 2010; Blunden, 2012) – natural resources – for example, in the Barents Sea (Moe, 2010; Janicki, 2012) – and sovereignty claims – for example, the delimitation of the continental shelf in the Arctic Ocean (Dodds, 2010), just to mention the most obvious contentious issues.

The purpose of this chapter is therefore twofold. First, I aim to help understand the military dimension of the developments in the post–Cold War Arctic region; second, to present and discuss some examples of military cooperation and its implications for Arctic security. The chapter is divided into four main sections. Following these introductory comments, the second section focuses on two main issues: the strategic importance of the region at the turn of the 21st century and a brief review of special military capabilities developed recently by the forces operating in this harsh, northern polar region. This provides a better understanding of selected illustrations of military cooperation increasing in recent years in the Arctic, which are presented and discussed in the third section. The third section comprises three parts: (1) the military dimension of the Barents Cooperation; (2) military manoeuvres and agreements about cooperation in the Arctic; (3) high-level debates about military adaptation to the effects of climate change. The fourth and final section offers some concluding remarks, in addition to tackling the prospects and expected implications of military cooperation in the Arctic in the near future. Any consideration of the military dimension of Arctic security should begin with a general analysis of the strategic importance of the region at the turn of the 21st century, which according to certain geopolitical factors could be divided into three triangular parts: the North American Arctic, the Russian Arctic, and the European Arctic (usually referred to as the 'High North', a literal translation of its Norwegian original name). The borders between these parts are not

DOI: 10.1057/9781137468253.0008

clearly defined, and Greenland and the Barents Sea subregion can play a pivotal role in drawing the borders on a larger scale. While the first two parts, with the Northwest and Northeast passages, respectively, as their core area and main geopolitical challenges, are dominated by Canada/United States and Russia, the High North indeed resembles a chessboard with many figures (Nordic Arctic states and Russia) and "pawns" (non-Arctic players such as China or the European Union).

Renewed strategic importance of the region

It is usually pointed out that major changes are occurring in Greenland, Iceland and the Barents Sea subregion and that they are actively shaping the new reality of the whole Arctic region (IISS, 2012). Greenland is shifting toward independence from Denmark, a possibility that will seriously determine the future involvement and position of that state in Arctic affairs (Auchet, 2011). Iceland's recent financial crisis and the shutting down of the United States' Keflavik air base in 2006 – followed by resumed Russian bomber flights in the Arctic (Watson, 2011) – raised some concerns about what the intentions of Russia might be, and about Iceland's security and (self-)defense arrangements (Kristjansson and Cela, 2011; Dodds and Ingimundarson, 2012). The Barents Sea subregion, which is becoming a nexus for the changes taking place in the Arctic (shipping, extraction, military activity), has made bilateral relations between Norway and Russia extremely important for the overall geopolitical situation in the region (Moe, 2010).

On the contrary, sovereignty claims, the Arctic as a strategic nuclear arena, and ballistic missile defense systems currently seem to be the main aspects of the Arctic military dimension (IISS, 2012; Conley et al., 2012), and as such they require a more detailed presentation. First, when human activities in the Arctic increase surveillance of territorial waters and exclusive economic zones, search and rescue and environmental protection activities become instrumental in signalling sovereignty. This approach is generally shared by all Arctic states, especially coastal ones (Bailes and Heininen, 2012). Second, strategic nuclear assets were concentrated in the Arctic throughout the Cold War, and nuclear operations never completely ceased (Wallace and Staples, 2010). The ice cap made submarines difficult or impossible to detect, and this raises

DOI: 10.1057/9781137468253.0008

the question of whether the ice melt will erode second-strike nuclear capabilities and render countries more vulnerable to attacks. Russia, the United States and the United Kingdom are developing or debating the renewal and revitalization of their SSBN systems. In many capital cities there has been an intense debate about how the change in the operating conditions for which these weapons systems were developed will affect operational patterns and strategic stability, and what effect this will have on investment decisions for the future (Vestergaard, 2010). Third, the BMD systems are shifting slowly toward more sea-based components, which may lead to more ship-based systems operating further to the North, and this in turn may be regarded as manifestations of US and allied naval power. This carries the risk of misunderstood intentions. The strong Russian reaction to the proposed missile defense system in Central Europe indicates potential sensitivities around changes in BMD systems and raises a dilemma around whether adverse reactions from nations in and around the Arctic would be worth the technological systemic effect of BMD components operating in the Arctic (IISS, 2012).

Having drawn the strategic picture of the Arctic, it is now time to look at the military capabilities of the states in the region.

Unique military capabilities for a unique region

According to Haftendorn (2011), the Arctic Ocean coastal, or littoral, states have followed one model in their new Arctic strategies (as political declarations or projects) and admitted that their main focus is safeguarding sovereignty over their Arctic territories and securing a fair share in the exploitation of the area's resources, while the noncoastal states seem to prefer mainly the development of international cooperation. They also committed themselves to using hydrocarbons responsibly in order to avoid destroying the highly fragile Arctic environment, and to ensuring the well-being of indigenous people in the Arctic – "In so doing, they try to blend military preparedness with enhanced cooperation", Haftendorn (2011, p. 339) remarks. It is worth noting that a similar position was expressed by the participants of the first NATO seminar on "Security Prospects in the High North" organized in Reykjavík on 29 January 2009. They underscored that it remained "a priority to preserve the current stability in the Arctic as a region of low tension by

DOI: 10.1057/9781137468253.0008

managing the ongoing limited increase in military activities in a transparent, deliberate and measured way" (Chairman's Conclusions, 2009).

The review of current and projected military forces in the Arctic region, presented by Siemon Wezeman of the Stockholm Peace Research Institute (SIPRI) in March 2012, indicated that the process of modernization and the creation of new capacities to address new challenges was associated with the environmental, economic and political changes anticipated in the region, rather than constituting a response to major threat perceptions. Conventional military forces especially adjusted to the harsh Arctic environment were projected to remain rather local in range, especially given the size of the Arctic region, and would remain in some cases very much below Cold War levels (Wezeman, 2012). An interesting comparison referring only to the Arctic Ocean's navy and coastguard ships is presented by Grätz (2012).

As Haftendorn (2011, p. 343) predicts, "any new military challenge in the Arctic will be radically different from that during the Cold War; it will stem from fundamentally changed political interests and ambitions". Norway's former chief of defense, General S. Diesen (2008), even suggests that such new challenges might arise from greater accessibility to raw materials and the opening of new lines of communication; other sources might be strategic competition, miscalculation or an accident caused by the military forces deployed in the region. Taking this into consideration, it bears pointing out that following the reduction of the political and military tensions in the 1990s, some military capabilities are again being restored or redeployed in the Arctic. In many instances, these capabilities are defensive in nature and linked to intensified activities surrounding either the extraction of raw materials or new 'soft' security issues. Soft capabilities help to address climate change, cyber crime, search and rescue, disaster response and humanitarian assistance. As has already been highlighted, due to the extreme weather conditions, primarily military or coast guard assets tend to be able to safely operate under Arctic conditions (plus a very limited number of the icebrakers capable of operating in the Arctic Ocean). In light of the new possibilities, there is also a growing awareness of the lack of surveillance capabilities for the territory and for the purpose of enforcing sovereignty. While Canada and the Kingdom of Denmark, for instance, strive to build up policing and military capabilities to strengthen their presence in the Arctic areas, Russia, along with upgrading border protection capabilities as a part of the integrated security system in the Russian Arctic, has also focused on

DOI: 10.1057/9781137468253.0008

modernizing its hard capabilities, which are essential not only for power projection and strategic deterrence, but also for maritime security, aerial and naval reconnaissance or satellite communication. What is more, Russia has resumed patrol flights over the Arctic as well as submarine patrols last carried out during the Cold War, albeit at a lower frequency. This confirms the persistence of a rather traditional Russian threat perception (Grätz, 2012), which, however, is occasionally developed through participation in different forms of military cooperation – the main topic of the next section.

Barents Cooperation: the military dimension

The Barents Euro-Arctic cooperation can be singled out as one very good example of such cooperation.[4] It was established in 1993 as a symptom of a shift in regional priorities from securitization to cooperation. In a region rife with military equipment and strategic interests, the Barents Cooperation became a kind of platform for alternative relations (Eriksson, 1995). The Barents Cooperation implied not only a breakthrough in relations between people and their political authorities, but also, from a security perspective, in relations between military authorities. During the Cold War period the region was one of the most heavily militarized areas in Europe, with a cold front separating (fortunately, in a peaceful way) the NATO member, Norway, from the threat of the Soviet Union. Moreover, the Kola Peninsula was perceived as a centerpiece in the Soviet military machine, with the dangerous and powerful Northern Fleet operating in the world's oceans from bases located just a few kilometers from the border with Norway (Heininen and Segerståhl, 2002). The Kola Peninsula also hosted several army, air force and air defense units, like it still does.

Since the relationship between the armed forces in a region reflects the overall political climate in the area, it is no surprise that the Barents Region has been characterized by peace and stability as well as a constantly increasing level of mutual understanding (Brunstad et al., 2004). This constructive atmosphere also includes the military. Each state's armed forces constitute one of the most powerful instruments at its disposal. Including them in cooperation with another state thus indicates a good in–erstate relationship (Baev, 2009). Military cooperation in the Barents Region has deepened and expanded over the past years, and this trend

DOI: 10.1057/9781137468253.0008

is expected to continue. The agreement between Russia and Norway on maritime delimitation and cooperation in the Barents Sea, established in 2010, is perhaps the single most important event in Norwegian foreign policy in the post–Cold War period (Moe, Fjærtoft and Øverland, 2011). It has removed a potential source of conflict between Norway and Russia and is an excellent example of current cooperative attitudes in the High North.

It is noteworthy that both the Russian Northern Fleet and the Norwegian National Joint Headquarters are located within the boundaries of the Barents Region. However, they are not regional institutions as such, but rather both retain far-reaching national responsibilities. Consequently, when we talk about military cooperation in the Barents Region, we not only talk about cooperation between military units in the area, but also, above all, about cooperation between two countries' armed forces.[5] Experiences and observations from the Norwegian-Russian borderland illustrate, probably more persuasively than anything else, the great potential for cooperation in the Barents Region. Norwegian military cooperation with Russia has in general evolved positively over the years since the fall of the Soviet Union. The chief of the Norwegian National Joint Headquarters meets regularly with the commander of the Northern Fleet and the head of Border Guard Service of the Russian FSB (Federal Security Service). Border guards and coast guards on both sides of the border are, as in previous years, the units in most frequent contact. These branches have established a well-functioning, low-threshold and direct rapport both between operation centers and operational units. The Norwegian and Russian Border Guard and Coast Guard have established programs for personnel exchange.

Military exercises and agreements referring to paramilitary cooperation in the Arctic: who, with whom and what for?

Another interesting example of this new type of military cooperation is the most extensive joint action involving Norwegian and Russian forces – the annual Pomor Exercise, initiated in 1994. POMOR 2011 was held in May, starting with personnel from both sides taking part in the Victory Day celebrations in Severomorsk and ending with both sides' participation in the Constitution Day celebrations in Tromsø. For ten

DOI: 10.1057/9781137468253.0008

days the Norwegian frigate *KNM Helge Ingstad* and the Russian destroyer *Vice-Admiral Kulakov* were involved in training in the Barents Sea and the Norwegian Sea. The exercise also included fighter aircraft, marine patrol aircraft, helicopters and coastal ranger and naval infantry units. The Pomor Exercise focused on challenges that both Norway and Russia might face in the north. During the exercise, Norwegian and Russian forces practiced boarding operations, search and rescue, air defense, navigation and communication procedures. In turn, large parts of the POMOR 2012 exercise included firing live artillery rounds at simulated surface and aerial targets, antisubmarine warfare drills, antipiracy operations, and search and rescue (SAR) missions, as well as reclaiming an oil platform or commercial ship from armed extremists. The Northern Fleet destroyer *Admiral Chabanenko*, the Norwegian frigate *Fridtjof Nansen* and the offshore patrol ship *Senja* were involved in this exercise, which was completed on May 16 (WMD, 2012a).

In addition, an agreement to expand military cooperation to include joint exercises with ground forces was concluded in September 2011, when the state secretary in the Defense Ministry discussed the issue with representatives from the Russian Security Council and Ministry of Defense. Another interesting example is the Norwegian-Russian Barents Exercise, which takes place in the Varanger Fjord, in the border area between the two countries. The scenario aims at drilling the involved parties in search and rescue as well as oil spill prevention and cleanup, based on agreements on these issues between the two countries. The Barents 2011 Exercise was carried out by ten vessels, three helicopters and units from the Norwegian and Russian Coast Guard, Rescue Centers, and national oil spill prevention services. Symbolically, Norway's Prime Minister Jens Stoltenberg visited the exercise one day after the two countries' foreign ministers exchanged ratification documents comprising the Agreement on Maritime Delimitation in the Barents Sea.

The navy plays a key role in the realization of the Norwegian government's High North policy. Norway is a maritime nation whose wealth – oil, gas and fish – comes from the sea and seabed, and a nation that controls a sea area six–seven times larger than its land area. The navy plays an important role when it comes to surveillance, exercise of authority and upholding sovereignty. Navy and Coast Guard vessels and helicopters will also play an important role in the predicted commercialization of the High North, at least as long as alternative infrastructure in search and rescue is poorly developed in the area. From a Norwegian political point

DOI: 10.1057/9781137468253.0008

of view, the naval exercises conducted in the north support the priorities of the national High North policy. Military presence in the prioritized areas sends a clear signal to the country's own citizens, to other states and to international commercial actors.

The military cooperation between Norway and Russia in the north is not based on strict bilateral agreements alone. Norway and Russia, as well as the other two Barents countries, Finland and Sweden, are members of the Partnership for Peace cooperation program. As a NATO member, Norway is also part of the NATO-Russia Council. Both these programs have a scope that reaches far beyond the boundaries of the Barents Region.

Another example is the NATO-Russia cooperation system to counter air terrorism, where Bodø and Murmansk are selected as regional coordination sites. With the system in place, both NATO and Russia can see a shared radar picture of air traffic all across Russian airspace as well as the airspace above all NATO member states. The Norwegian-Russian bilateral forms of military cooperation, as presented, are in many ways exceptional and of great significance, precisely because they have been elaborated between former Cold War antagonists. Their importance is therefore far more meaningful than, for example, strong bilateral cooperation between the NATO and PfP partners, which formed the basis for Norway's Cold Response exercises, organized in conjunction with selected countries.[6] Two other military training events offer a more nuanced look into military cooperation in the Arctic. First is the annual Operation Nanook in the Canadian North – a sovereignty operation conducted by the Canadian Armed Forces (CAF) in cooperation with several federal departments (including the Canadian Coast Guard [CCG]) and provincial, territorial, regional and more recently international partners, primarily in the astern and High Arctic. In its 2010 edition (Operation Nanook, 2010), Canadian forces collaborated with two Royal Danish Navy vessels specialized for Arctic operations as well as two US vessels. Operation Nanook 2011 took place in the vicinity of Resolute Bay, Nunavut, in August 2011, and consisted of two parts. The first, a sovereignty and presence patrolling exercise, was conducted in cooperation with the US Coast Guard and the Royal Danish Navy. The second, a Canadian exercise that included simulated air disaster and maritime emergencies, demonstrated the country's ability to respond to emergency situations in the north. The largest and northernmost Canadian Arctic military operation in history, Operation Nanook 2011

DOI: 10.1057/9781137468253.0008

involved the participation of more than 1,100 CAF personnel and 180 members of the CCG. Operation Nanook 2012 aimed to establish a visible presence of Canada in the Arctic and to demonstrate the country's ability to respond to situations and emergencies in the region. Those exercises were focused on two scenario-driven events in two separate locations in Canada's High North. The first involved the deployment of land and air forces to the Western Arctic to assist the Royal Canadian Mounted Police in a security event in the Northwest Territories. The second involved the deployment of CAF land, sea, air and special operations forces to the East, to the Hudson Bay/Hudson Strait and Churchill, Manitoba, with the aim of intercepting alleged hypothetical hostile vessel.[7]

Canada and the United States are further developing their collaboration in military affairs (what is not strange for close allies in the NATO), and not only due to geographical proximity (which results with a dispute on the status of the Northwest Passage (NWP) and on maritime border on the Beaufort Sea). In December 2012 both states signed new agreements that expanded their security relationship by promoting closer cooperation in peacefully opening the Arctic and in expanding their bilateral military training and exercise program. This so-called Tri-Command Framework for Arctic Cooperation will further integrate the US Northern Command (USNORTHCOM), the Canadian Joint Operations Command (CJOC) and the North American Aerospace Defence Command (NORAD). According to a press release, the framework is designed to "promote enhanced military cooperation in the Arctic and identify specific areas of potential Tri-Command cooperation in the preparation for and conduct of safety, security and defence operations" (NORAD, 2012). USNORTHCOM, CJOC and NORAD will work more closely in the region in the areas of planning, domain awareness, information-sharing, training and exercises, operations, capability development and science and technology. This also ties in with the Tri-Command Training and Exercise Statement of Intent. This newly signed military document is aimed at "enhancing joint and combined readiness in support of safety, security and defence missions through combined training and exercises and reinforcing partnerships and collaboration among the Commands" (Gabriel, 2012). Another interesting example is the tri-nation military exercise code-named 'Northern Eagle', involving forces from Norway, the United States and Russia, which is described as a model of bridge-building and productive cooperation between the two world powers. Northern Eagle was carried out for the first time in 2004, initially as a

DOI: 10.1057/9781137468253.0008

bilateral naval exercise involving only the United States and Russia. The exercise was expanded to include Norway in 2008. The joint Russian-US-Norwegian naval exercises took place in the Arctic waters of the Barents Sea in August 2012. The final stage of the exercise, under Russian command, involved the US Navy's Arleigh Burke–class destroyer the *USS Farragut*, the Russian Northern Fleet's destroyer *Admiral Chabaneko* and the Norwegian Coast Guard vessel *KV Andenes*. The Northern Eagle 2012 manoeuvres covered a range of joint operations, including search and rescue, mock antipiracy engagements, helicopter-centered intership cargo transfers and air defense drills using Russian Su-33 fighters and Il-38 antisubmarine warfare aircraft. Russian Ka-27 and US Sea Hawk helicopters; in addition, Norwegian F-16 jet fighters and Orion surveillance planes were also deployed in the exercises. The exercises concluded in the Northern Fleet's main base of Severomorsk, where the US and other foreign vessels stayed for a few more days (O'Dwyer, 2012). In 2012, parallel with these exercises, Russia organized its own manoeuvres in the polar regions, during which soldiers of Russia's Western Military District (WMD) countered 'attacks' from the sea, maintaining civil shipment security on the Northern Sea Route, rendering assistance to a ship in distress in the Arctic, repelling air attacks upon industrial and scientific assets and so on. Pursuant to the scenario, some objects based in the Arctic were attacked by irregular armed forces intent on destroying infrastructure in and around scientific stations, drilling facilities and power engineering assets. Those terror actions could result in technological disasters and large-scale environmental contamination. In view of the incoming information about terror activities, the Northern Fleet (NF) command decided to provide all-round defense of industrial and scientific objects, including air attack protection. NF marine units, in cooperation with the WMD Infantry Brigade, were deployed to the approximate area of the enemy's landing assault and performed reconnaissance of the Barents and Kara seas as well as the coastline zone in order to neutralize terror groups landing ashore. NF surface ships and aircraft lifted marines to distant industrial and scientific objects to be defended. The NF surface ship task force, acting in cooperation with the WMD's First Air Force and Air Defence Command, carried out missile firing drills and intercepted 'enemy' aircraft in the air. To practice these activities, the coast-based missile system Redut launched missile drones. Ships deployed in the Barents Sea detected the targets, and deck-based Su-33 fighters destroyed them. More than 7,000 men, 20 surface ships and submarines, about 30

DOI: 10.1057/9781137468253.0008

aircraft, and some 150 combat vehicles were involved in the exercise. Its individual episodes will take place in the Barents and Kara seas, at land ranges in the Murmansk region, the Sredny and Rybachy peninsulas, and other Arctic zones. The results of the exercise formed the basis for the reconsideration of further manoeuvres to be held in the Arctic on a regular basis in the coming years (WMD, 2012b).

Debates about adaptation to consequences of climate change: the military dimension

In Oslo, in June 2011, the US European Command and the Norwegian Defense Forces cosponsored an Arctic Security Forces Roundtable as part of their bid to establish a forum for cooperation on climate change issues. With the theme 'Military Adaption to Climate Change', the roundtable focused on promoting collaboration to address challenges related to managing security forces in the Arctic, with an emphasis on support for environmental protection, infrastructure, joint exercises and training and maritime domain awareness. During the meeting, one of the key discussion points was how to establish better coordination of current standard operating procedures across all Arctic security stakeholders. For example, further analysis of regional search and rescue operations could assist in base-lining basic communication needs across the region for safe maritime operations (Schissler, 2012). As far as military and security concerns go, it should also be indicated that the Canadian Chief of the Defence Staff hosted the Chiefs of Defence (CHOD) and senior military officials from seven other Arctic states during a two-day meeting held on April 12–13, 2012, at the Canadian Air Forces Base in Goose Bay. This was the very first time the Northern Chiefs of Defence had the opportunity to meet as a forum and to discuss common safety and security issues pertaining to the North. The primary objective of the two-day conference was to build upon Canada's existing defense relationships in the region by offering the attendees an informal opportunity to conduct direct multi- and bilateral discussions focused on Northern issues. The meeting was a vital opportunity for sharing knowledge and expertise concerning ways of dealing with regional operational challenges posed by geography, climate and vast distances; responsible stewardship; and support to civil authorities. The conference also included opportunities to meet local community

DOI: 10.1057/9781137468253.0008

leaders and to engage with Canadian Rangers. The meeting was deemed a good first step toward enhancing communications and relationships and building on cooperative efforts in the North. On June 11 and 12, 2013, Northern Chiefs of Defence conference was hosted by the Danish Chief of Defence in Ilulissat, Greenland.

While the meetings discussed were rather unofficial and retained a working character, their importance results from providing the opportunity to set up new direct contacts, exchange information and plans and, finally, offer a highly specialized forum interested in developing the capabilities of states, both in accordance with their political preferences and their real needs.

Concluding remarks

At the beginning of the 21st century, various complex factors resulting from the consequences of climate change have raised political concerns over the future of the Arctic region. A shrinking ice cap that increases accessibility to resources and potential shipping routes, technological changes facilitating the extraction of resources from deep seas and the implementation of UNCLOS, which has allowed countries to extend their sovereign right to harvest resources into the sea, have put the Arctic back on the geopolitical map and in the news. This has once again altered the discourse about the Arctic from one being concerned with only environmental protection to a renewed take in which the exploitation of natural resources, navigation, territorial claims and, finally, the military dimension of security have become prevalent. Today we are almost sure that the Arctic will experience extraordinary and far-reaching environmental, social and economic transformation over the next several decades (see Finger in this volume). More extensive drilling for oil and gas in the region, booming shipping and tourism are just a few of the widely known examples of increased human activity anticipated in the Arctic, as new shipping routes come into existence and the scope of human activity expands. Owing to the extremely harsh polar climate and almost unpredictable weather conditions, this renewed activity will still require very special support and security, both in terms of competencies and technical capabilities (Perry and Andersen, 2012). What is more, it should be emphasized that the new security challenges are quite wide-ranging, including search and rescue, environmental remediation,

DOI: 10.1057/9781137468253.0008

natural and man-made disaster response, border protection and, at a further point in time, even piracy or terrorism (Conley et al., 2012).

As the US Department of Defense appraises, military operations in the Arctic areas are being transformed in recent times by the changing physical environment as well as increased civilian presence and activities (US DoD, 2010) that create a demand for very special coast guard services in the area. These services include surveillance and maritime domain awareness; law enforcement, including observing and reporting on fishing activities; environmental protection, including oil pollution response; and search and rescue. Delivering these services in the Arctic presents additional challenges, particularly ones connected with the considerable distances involved. These issues are likely new and prospective domains for the military forces' activities in all Arctic states.

As has been suggested throughout this chapter, the Arctic has been so far an area of low military tension, but it should still be considered paramount to design plans on 'how to keep it that way', how to create forums for discussing hard and soft security issues, confidence-building and military cooperation (see also Heininen in this volume). The different examples of military cooperation provided here show that there has been a growing awareness of these needs among the Arctic states or at least they manifested such. At the same time, along with the development of the Ukrainian crisis, the issue of the changing settings for the political cooperation in the Arctic region has been gaining importance. When the new US and EU sanctions against Russia apply also to security and energy-related projects in the Arctic and concurrently the Russian military has increased the frequency of its exercises and manoeuvres in the region, this quite often used phrase 'High North with low tension' might be replaced with its new version: 'High North with growing tension'. Of course, the projection of military power does not have to lead to an open conflict; however, it may increase the probability of some accidents or the wild cards that will test the values and effectiveness of the earlier multilateral military cooperation.

Notes

Acknowledgment: This chapter has been drafted as part of a research effort supported by the National Centre for Science's post-doctoral fellowship under the grant DEC-2011/04/S/HS5/00172.

DOI: 10.1057/9781137468253.0008

1 During the past few years there have been several conferences and expert seminars dedicated to the issues of Arctic security where military aspects were widely discussed. For instance: (1) Forum for Arctic Climate Change and Security: Military Cooperation Workshop, meeting organized by the International Institute for Strategic Studies, London, October 18, 2012; (2) 2013 Arctic Frontiers conference entitled 'Geopolitics & Marine Production in a Changing Arctic'; (3) "Security in the Arctic" – a panel organized by the Northern Research Forum (NRF) and the UArctic-NRF Thematic Network on Geopolitics and Security during the first Arctic Circle meeting in Reykjavik, October 12–14, 2013.

2 Such an approach is presented, for example, by R.W. Murray (2012), who argues that "[t]he contemporary changes to the international system as the era of American hegemony has begun to wane, the effects of climate change and greater access, and the increasingly militaristic strategies of most every Arctic state have led to a situation where tensions are at an all-time high, and (...) legal or institutional processes are unlikely to resolve anything amicably. As the system continues its transition away from unipolarity, observers are left to ponder what might come next after an era of relative interstate stability".

3 As Young (2011: xxii) highlights, "[F]rom a political perspective, the essential feature of the transformation now occurring in the Arctic is a tightening of the links between the global and regional processes, development of a new relationship between the Arctic and the outside world or even dramatic shift in the role of Arctic in global system".

4 The analysis of the military dimension of the Barents Cooperation, presented in the following paragraphs, is based on Pettersen (2012).

5 Also worth mentioning here is the Barents Rescue cooperation, developed to improve the capacity of rescue service agencies to cooperate on emergency and rescue issues across county and national/federal borders in the Barents Region. Cross-border emergency exercises in the region have been conducted every two or three years since 2001.

6 'Cold Response' is the name given to Norwegian exercises held in northern Norway (and twice in the territory of Sweden) with the involvement of invited Partnership for Peace countries. The first one was the largest military exercise in Norway in 2006. Around 10,000 soldiers from 11 nations participated. It was a national Norwegian exercise in which all NATO states were invited to participate. The second exercise was held in March 2007; the third in March 2009; and the fourth in February–March 2010, with the participation of approximately 8,500 soldiers. The fifth exercise was held between March 12 and 23, 2012, with over 16,000 soldiers taking part. During this exercise participants rehearsed deploying and using military reaction forces in an area of crisis where they had to handle everything from high intensity warfare to terror threats and mass demonstrations. The soldiers had to balance the use

DOI: 10.1057/9781137468253.0008

of diplomatic and military force and to train in an international environment where they had to master a common language and procedures. Source: http://mil.no/; Depledge and Dodds (2012).

7 This scenario mirrored the situations experienced in British Columbia in 2011, when boats carrying Tamil migrants sought illegal entry (Fitzpatrick, 2012; Dodds, 2012).

References

Auchet, M. (2011) 'Greenland at the Crossroads: What Strategy for the Arctic?', *International Journal*, 66(4), 957–976.

Baev, P.K. (2009) 'Troublemaking and Risk-Taking: The North in Russian Military Activities', in E. Wilson Rowe (ed.), *Russia and the North* (Ottawa: University of *Ottawa* Press).

Bailes, A.J.K. and L. Heininen (2012) *Strategy Papers on the Arctic or High North: A Comparative Study and Analysis* (Reykjavik: University of Iceland).

Blunden, M. (2012) 'Geopolitics and the Northern Sea Route', *International Affairs*, 88(1), 115–129.

Bjørn Brunstad, Eivind Magnus, Philip Swanson, Geir Hønneland and Indra Øverland (2004) *Big Oil Playground, Russian Bear Preserve or European Periphery? The Russian Barents Sea Region towards 2015* (Delft: Eburon Academic Publishers).

Chairman's Conclusions (2009) 'Seminar on Security Prospects in the High North', Reykjavík, January 29, 2009, http://www.mfa.is/publications/aifs/nr/4801, date accessed June 16, 2014.

Conley, H.A. et al. (2012) *A New Security Architecture for the Arctic. An American Perspective* (Washington, D.C.: Center for Strategic and International Studies).

Depledge, D. and K. Dodds (2012) 'Testing the Northern Flank. The UK, Norway and Exercise Cold Response', *The RUSI Journal*, 157(4), 72–78.

Diesen, S. (2008) 'Security and the Northern region', in R. Gottemoeller and R. Tamnes (eds.), *High North: High Stakes. Security, Energy Transport, Environment* (Bergen: Fagbokforlarget).

Dodds, K. (2010) 'Flag Planting and Finger Pointing: The Law of the Sea, the Arctic and the Political Geographies of the Outer Continental Shelf', *Political Geography*, 29(2), 63–73.

Dodds, K. (2012) 'Graduated and Paternal Sovereignty: Stephen Harper, Operation Nanook 10, and the Canadian Arctic', *Environment and Planning D: Society and Space*, 30(6), 989–1010.

DOI: 10.1057/9781137468253.0008

Dodds, K. and V. Ingimundarson (2012) 'Territorial Nationalism and Arctic Geopolitics: Iceland as an Arctic Coastal State', *The Polar Journal*, 2(1), 21–37.

Eriksson, J. (1995) 'Security in the Barents Region. Interpretations and Implications of the Norwegian Barents Initiative', *Cooperation and Conflict,* 30(3), 259–286.

Fitzpatrick, M. (2012) 'Arctic Military Exercise Targets Human-Smuggling "Ecotourists"', CBC News, http://www.cbc.ca/news/politics/story/2012/08/24/pol-harper-north-tour-friday.html, date accessed June 24, 2014.

Forbes, B.C. and F. Stammler (2009) 'Arctic Climate Change Discourse: The Contrasting Politics of Research Agendas in the West and Russia', *Polar Research*, 29(1), 28–42.

Gabriel, D. (2012) 'The Tri-Command Strategy and Merging U.S.-Canada Arctic Foreign Policy', http://www.infowars.com/the-tri-command-strategy-and-merging-u-s-canada-arctic-foreign-policy/, date accessed June 21, 2014.

Grätz, J. (2012) "The Arctic: Thaw with Conflict Potential', CSS Analysis in Security Policy No. 118, http://www.sta.ethz.ch/content/download/3118/18305/version/1/file/CSS-Analysis_118.pdf, date accessed May 20, 2014.

Haftendorn, H. (2011) 'NATO and the Arctic: Is the Atlantic Alliance a Cold War Relic in a Peaceful Region Now Faced with Non-military Challenges?', *European Security*, 20(3), 337–361.

Heininen, L. (2008) 'Geopolitics of a Changing North. In: Seeking Balance in a Changing North', in Proceedings from the 5th NRF Open Assembly in Anchorage, Alaska, http://www.rha.is/static/files/NRF/OpenAssemblies/Anchorage2008/a/5th_nrf_anc_2008_heininen_geopolitics_changing_north.pdf, date accessed June 13, 2014.

Heininen, L. (2013) 'Arctic Security – Global Dimension and Challenges, and National Policy Responses', *The Yearbook of Polar Law*, 5, 93–115.

Heininen, L. and B. Segerståhl (2002) 'International Negotiations Aiming at Reduction of Nuclear Risks in the Barents Region', in R. Avenhaus, V. Kremenyuk and G. Sjöstedt (eds.), *Containing the Atom. International Negotiations on Nuclear Security and Safety* (Lanham, MD: Lexington Books).

Huebert, R. et al. (2012) 'Climate Change & International Security: The Arctic as a Bellwether', Center for Climate and Energy Solutions, http://www.c2es.org/publications/climate-change-international-arctic-security, date accessed June 17, 2014.

DOI: 10.1057/9781137468253.0008

IISS, (2012) Forum for Arctic Climate Change and Security: Geoeconomics Workshop Report, http://www.iiss.org/-/media/Images/Events/events%20calendar%20from%20import/ 68147.pdf, date accessed June 28, 2014.

Janicki, W. (2012) 'Why Do They Need the Arctic? The First Partition of the Sea', *Arctic*, 65(1), 87–97.

Kristjansson, J.T. and M. Cela (2011) 'Iceland as a "Powerful" Small State in the International Community', http://stofnanir.hi.is/ams/sites/files/ams/Icelandworkingpaper-final.Jun e2011.pdf, date accessed June 19, 2014.

Le Mière, C. and J. Mazo (2014) *Arctic Opening: Insecurity and Opportunity* (London: Routledge).

Liu, M. and J. Kronbak (2010) 'The Potential Economic Viability of Using the Northern Sea Route (NSR) as an Alternative Route between Asia and Europe', *Journal of Transport Geography*, 18(3), 434–444.

Moe, A. (2010) 'Russian and Norwegian Petroleum Strategies in the Barents Sea', *Arctic Review on Law and Politics*, 1(2), 225–248.

Moe, A., D. Fjærtoft and I. Øverland (2011) 'Space and Timing: Why Was the Barents Sea Delimitation Dispute Resolved in 2010?', *Polar Geography*, 34(3), 145–162.

Murray, R.W. (2012) 'Arctic Politics in the Emerging Multipolar System: Challenges and Consequences', *The Polar Journal*, 2(1), 7–20.

NORAD (2012) 'NORAD, USNORTHCOM and Canadian Joint Operations Command Commander Sign Cooperative U.S./Canada Documents', http://www.northcom.mil/Newsroom/tabid/3104/Article/2956/norad-usnorthcom-and-canadian-joint-operations-commmand-commander-sign-cooperat.aspx, date accessed 11 June 2014.

O'Dwyer, G. (2012) 'Norway Hails Northern Eagle as Bridge-Builder', http://www.defensenews.com/article/20120824/DEFREG01/308240002/Norway-Hails-Northern-Eagle-Bridge-builder, date accessed May 24, 2014.

Palosaari, T. and F. Möller (2003) 'Security and Marginality: Arctic Europe after the Double Enlargement', *Cooperation and Conflict*, 39(3), 255–281.

Perry, C. and B. Andersen (2012) 'New Strategic Dynamics in the Arctic Region. Implications for National Security and International Collaboration', *Atlantisch Perspectief*, 6, 4–9.

DOI: 10.1057/9781137468253.0008

Pettersen, T. (2012) 'Military Cooperation in the High North', in A. Staalesen (ed.), *Barents Review 2012. Barents Borders – Delimitation and Internationalization* (Kirkenes: The Norwegian Barents Secretariat).
Rosamond, A.B. (2011) 'Perspectives on Security in the Arctic Area', DIIS Report, http://www.diis.dk/graphics/Publications/Reports2011/RP2011-09-Arctic-security_web.pdf, date accessed May 26, 2014.
Schissler, M.O. (2012) 'Arctic Nations Meet to Discuss Communication, Maritime Domain Awareness Strategy', http://www.eucom.mil/blog-post/24109/arctic-nations-meet-to-discuss-communication-maritime-domain-awareness-strategy, date accessed May 23, 2014.
US DoD (2010) *Quadrennial Defense Review Report* (Arlington, VA: US Department of Defense).
Vestergaard, C. (2010) 'Conference on an Arctic Nuclear-Weapon-Free Zone, Copenhagen', DIIS Report, http://www.diis.dk/graphics/Publications/Reports2010/RP2010-03_arctic_nuclear _weapon_free_zone_web.pdf, date accessed June 05, 2014.
Wallace, M. and S. Staples (2010) *Ridding the Arctic of Nuclear Weapons: A Task Long Overdue*. Toronto-Ottawa: Canadian Pugwash Group & Rideau Institute, http://www.arcticsecurity.org/docs/arctic-nuclear-report-web.pdf, date accessed June 07, 2014.
Watson, B. (2011) 'Operation Ignition. Task Force Iceland', *FrontLine Defence, 8(5), 28–30*.
Wezeman, S.T. (2012) 'Military Capabilities in the Arctic', SIPRI Background Paper, http://books.sipri.org/files/misc/SIPRIBP1203.pdf, date accessed June 17, 2014.
WMD (2012a) 'Pomor-2012 Exercise Finished with Call at Bodø, Norway, Western Military District Press Service', http:// rusnavy.com/news/newsofday/index.php?ELEMENT_ID=15138&print=Y, date accessed June 02, 2014.
WMD (2012b) 'Russian Military Exercises in Arctic', Western Military District Press Service, http://rusnavy.com/news/newsofday/index.php?ELEMENT_ID=15999, date accessed June 02, 2014.
Young, O.R. (2011) 'Foreword – Arctic Futures: The Politics of Transformation', in J. Kraska (ed.), *Arctic Security in an Age of Climate Change* (Cambridge: Cambridge University Press).

DOI: 10.1057/9781137468253.0008

4

Russian Subnational Actors: Paradiplomacies in the European and Russian Arctic

Pertti Joenniemi and Alexander Sergunin

Abstract: *The chapter examines the engagement of Russian northern subnational units in 'paradiplomacy' as a form of problem-solving and in order to generate sustainable development. The forms of policy covered include the making of direct agreements with international partners, attracting foreign investment, creating regions' positive image, cooperation with international organizations, establishing representative offices in foreign countries, city-twinning, participation in Euroregions and other subregional arrangements as well as the capitalizing on national diplomacy and federal infrastructures. In particular the aim is to explore their challenging of state-centered spatiality and to identify the underlying motives as well as the main strategies and instruments employed and to chart the institutional settings chosen.*

Keywords: civil security; paradiplomacy; problem-solving; Russia; subnational actors; the European Arctic

Heininen, Lassi, ed. *Future Security of the Global Arctic: State Policy, Economic Security and Climate*. Basingstoke: Palgrave Macmillan, 2016. DOI: 10.1057/9781137468253.0009.

Introduction

Paradiplomacy has, as a concept, been used in capturing the international relations conducted by subnational or regional actors on their own, with a view to promoting their own interests. It has had an increasing applicability and is, with a view to their rather broad international contacts, also useful in probing the policies pursued by various Russian subnational entities in the North, as well as in some other parts of the Arctic like in Greenland (see Ackrén, 2014).

Thus the purpose here is to examine how the Russian northern subnational actors use paradiplomacy as a resource for problem-solving in various contexts and ensuring their sustainable development. In particular we focus on the following questions: What are the basic motives behind the subnational actors' international activities? What strategies, instruments and institutions are available for them to implement their foreign policies? And, finally, what are the implications – negative and positive – of the policies pursued for Russia's domestic and international positions and the unfolding of political space in the North more generally?

In the Cold War era, when the principles of the Westphalian prevailed, there was scant space for other actors other than states in the sphere of international relations. Subnational entities such as regions and municipalities were expected to remain exclusively within the sphere of the 'domestic'. However, the prerogative of states to insert divisive borders has gradually eroded and consequently various substate actors have been able to establish relations of their own and to do so even without any decisive supervision exercised by their respective states. Subnational actors could thereby contribute to the emergence of transnational space and in general the emergence of a more diverse and polycentric world.

As to the European regions and municipalities, their motivations in the 1990s were in the first place idealistic and aimed at depolarization, the bolstering of mutual understanding and creation of ties of friendship between people across the East-West barrier. Cooperation was, in the first place, symbolic in character and rarely driven by any pragmatic concerns and interests. Remaining primarily symbolic in essence, the contacts established amounting to meetings between regional and local leaders, the shaking of hands, cultural events and organizing festivals, they could, however, in a few cases, also consist of deliveries of aid to partners from the post-Socialist countries and the establishment of somewhat more permanent ties.

DOI: 10.1057/9781137468253.0009

As far as the Russian northern subnational actors are concerned the initial thrust for their external activities can be explained by the harsh realities of the 1990s. In the Yeltsin era many Russian Arctic territories felt themselves as almost abandoned by the federal government; they had to seek for survival strategies of their own. Foreign aid and investment were seen as one of the most efficient instruments for keeping afloat the local economies. In fact, given a broad autonomy of the members of the Russian Federation in the Yeltsin period the northwestern regions managed to develop rather diverse international contacts.

However, with time, when the socioeconomic situation in Russia under the Putin regime improved, subnational entities tended to see international cooperation as an integral part of their strategy of sustainability rather than a strategy of survival. This paradigmatic shift in subnational units' motivation has entailed the radical change in their attitudes to and approach vis-à-vis paradiplomacy. Arguably, the romanticism of the earlier phase has waned and in consequence, subnational actors became more pragmatic and rational as to the policies pursued. Given the scarcity of resources available and the changes in financial conditions surrounding the EU CBC programs (Brussels introduced the 50:50 matching funds rule), collaborative projects became less ambitious and more realistic. Overall, they boiled down to the rather practical needs of those engaging in cooperation.

Thus, regions and municipalities now tend to coalescence across borders in order to solve concrete and shared problems and this is done for reasons of their own and by employing the competence that they themselves harbor. They aim at adding to their strength by transgressing various borders – be they conceptual, identity-related or spatial – and do so by joining forces in the context of various regional endeavors, or for that matter, through lobbying in various broader contexts. What used to be in the 1990s idealistically motivated and mainly citizen-driven endeavors with issues such as peace, friendship and mutual understanding high on the agenda has more recently turned into something far more mundane and elite-oriented. In essence, the driving force, one spurred by various economic, social, cultural as well as environmental concerns, amounts increasingly to that of self-interest.

This then also implies that the pursuance of paradiplomacy has become less chaotic and more prioritized. In essence, it has been subordinated to the long-term developmental strategies of subnational actors. At the same time, however, they have been compelled to take into

DOI: 10.1057/9781137468253.0009

account the various restrictive measures imposed by the Putin administration with the aim to establish a more efficient federal control over the external policies of regional and local governments. Notably, in some cases Moscow's restrictive policies have actually derailed promising international projects such as, for example, the creation of an industrial park on the Finnish-Russian border between Imatra and Svetogorsk, or the establishment of the Pomor Special Economic Zone on the border between the Sør Varanger community (Norway) and Murmansk region (Russia).

As far as other motives of paradiplomacy are concerned, some Russian regions have been interested in partaking in the federal decision making in the sense of stating their view prior to a final decision being reached or the international treaty signed. For example, the Murmansk region wanted to be involved in preparing international agreements where its status has been affected (visa regime, delimitation of maritime spaces, establishment of special economic zones and customs regimes, etc.).

Furthermore, and importantly, the underlying logic has in many cases turned EU-related (i.e., transnational) rather than remaining state-oriented (binational). Here we tend to agree with the geographic diffusion theory that proximity to the EU was a decisive factor that shaped paradiplomacies of some Russian northern subnational units. With some of the financial means available for the Euroregions, twinning and other forms of cooperation coming from the EU and related funds, the profile of the subnational actors involved has become quite Europe-oriented. Previously closed and barred spaces of the Russian Arctic – with regions/cities at the edge of statist space being unavoidably seen as peripheral – have been opening up as these border entities aim at benefiting from cross-border networking. It may also be observed that subnational actors have, for a variety of reasons, become part of an increasingly competitive logic, and they have been compelled to devise active strategies of their own. Crucially, they also seem to have the self-confidence required to do so and act in this context according to their own self-understanding and specific needs.

On a more general note, although the networking of subnational actors is in the first place underpinned by the logic of competition and carried by an interest in conducting a kind of local 'foreign economic policies' (Wellmann 1998, p. 11) the consequences of such moves reach far beyond the economic sphere. The currently ongoing 'economization' of interregional and intercity relations implies that these actors

DOI: 10.1057/9781137468253.0009

now basically follow a rationale of their own in linking and networking with each other. They seem, in fact, less state-oriented and aim instead, through new forms of signification and imagining space, at bolstering their own subjectivity also in the sphere of transnational relations.

Paradiplomacy: strategies and methods

Different from the ordinary typologies applied (Duchacek, 1990; Kuznetsov, 2009), we suggest another categorization of paradiplomatic methods. Arguably, two main types of paradiplomatic strategies – direct (i.e., developing external relations of their own) and indirect (influencing Russian federal foreign policies) – can be identified.

Direct strategies/methods include:

- *Creating a legislative basis for paradiplomacy.* This was particularly important for subnational units in the Yeltsin era when paradiplomacy was at its infancy and called for legitimacy. The regional and city constitutions/charters and normative acts of the 1990s aimed at legitimizing foreign policy activities of substate entities. Some regional/local legislation unavoidably collided with federal law (e.g., the Karelian constitution). However, it is also to be noted that in some cases local legislation forestalled the federal one: for instance, in areas such as encouraging foreign investment and land ownership. By developing the legislative base of their own the regional elites carved out their own policies in the hope to become more independent from Moscow.

In the early Putin period, however, the regional and local legislation was streamlined and increasingly subordinated to the federal one.

- *The use of the 'treaty-making power'.* Over the two past decades, this strategy has been at the center of the heated debate on the treaty-making powers of the federal center, regions (members of the Russian Federation) and municipalities. Despite Moscow's resistance, since the early 1990s many Russian border substate actors have concluded direct agreements with the same-type international partners. With some agreements being signed by bypassing Moscow, the inevitable outcome amounted to a conflict between the federal center and the regions. However, in the end a compromise was struck between the center and local

DOI: 10.1057/9781137468253.0009

> actors by deciding that such agreements should not have a status of full-fledged international treaties (i.e., still considered as a federal center's prerogative), and that they should be concluded with the partners located at the same level and not with foreign governments. Moreover, they should be prepared in consultation with the Russian Foreign Ministry.

Overall, in the post-Soviet period, the Russian northern regions and municipalities signed hundreds of international agreements. Depending on the size, socioeconomic and cultural potential the intensity of the treaty-making policies greatly varied between the subnational actors.

For example, the Arkhangelsk and Murmansk regions, both of which are considered as relatively large (by the Arctic standards) subnational actors, have pursued rather intensive treaty-making policies. The Arkhangelsk region has signed cooperative agreements with two Norwegian, two Finnish, one Belorussian and one Armenian provinces. Notably, this region has also been allowed to have agreements not only with foreign subnational units of the same status but also with foreign government. Thus, the Arkhangelsk region has entered into an agreement on trade, research and humanitarian cooperation with Armenia and signed another one with Norway on children and families at risk (http://apparat.gov-murman.ru/intercoop/direction/index.html). The city of Arkhangelsk has altogether 12 foreign twin partners throughout the world, including 4 Nordic cities – Ljusdal and Kiruna (Sweden), Oulu (Finland) and Vardø, Norway. The Murmansk region has bilateral agreements with three Norwegian, three Finnish and one Swedish provinces. Moreover, this region is a part of the Finnish-Russian intergovernmental agreement on the multilateral cooperation in the northwestern Russia (http://apparat.gov-murman.ru/intercoop/direction/index.html). The city of Murmansk has eight foreign twin partners, including five Nordic cities – Akureyri (Iceland), Luleå (Sweden), Rovaniemi (Finland), Tromsø and Vadsø (Norway).

To give another example, the Pechenga district (Murmansk region), which is seen as a relatively small-scale actor, has the only international agreement – with the Sør-Varanger community (Norway). The document (signed in 2008) includes the pilot project on twinning between two mining towns of Nikel and Kirkenes that are located on the Russian-Norwegian border.

Despite occasional collisions with Moscow, many regions and municipalities continue to see the involvement in quasi- 'treaty-making' strategy

DOI: 10.1057/9781137468253.0009

as an effective instrument both to build their capacities and enhance domestic and international prestige.

- *Establishing representative offices in foreign countries*. To facilitate direct cooperation with foreign countries some Russian regions have set up trade and cultural missions abroad. However, since the federal law on foreign trade of 1995 has stipulated that representative offices should be funded by the regions and municipalities themselves, it appeared that few regions have been able to afford the establishing of missions abroad. For this reason, a vast majority of subnational actors prefer to rely on the federal structures, that is, Russian embassies, consulates and trade missions, in the pursuance of their international policies.
- *Accommodating foreign consular offices and trade missions.* To maintain sustainable relations with neighboring foreign countries and facilitate travel for its citizens some Russian regions and municipalities have favored the establishing of foreign consulates and representative offices. For example, Arkhangelsk and Murmansk host Norwegian consulates while Petrozavodsk accommodates a Finnish consulate.
- *Attracting foreign investment, promoting joint projects*. A number of Russian northern regions and municipalities have succeeded in creating favorable conditions for foreign investment. For example, the Canadian companies have invested or plan to invest in the mining industries (gold and silver) in Chukotka as well as Yakutia and oil fields and renewable energy sector in the Nenets Autonomous District (http://pda. www.minregion.ru/Arctic/552/650/1693.html). Yet another example consists of the plan to create a US-Russian natural park for the protection of biodiversity in the Bering Strait region with a provisional name of *Beringia.* This project is crucial for the local economy that is heavily dependent on the fishery. The planned park could be based on the experiences of the existing ethno-natural park, established in 1993, with the same name on the Russian side of the Bering Strait (see the *Beringia* park's website: http://beringiapark.ru/).
- *Creating a region's positive image abroad*. In order to attract foreign investors and provide the regional/local reformist projects with national and international support the Russian northwestern subnational actors have launched a rather aggressive public relations campaign. They have arranged exhibitions, organized

DOI: 10.1057/9781137468253.0009

so-called cooperation days, such as the North Calotte Peace Days between the Nordic countries and the Soviet Union/Russia and conducted festivals together with their sister towns, taken part in international fairs and advertised themselves in the media of their partners. Regional and municipal leaders have undertaken regular and public-relations-oriented foreign trips. Some regions and towns have been running bilingual periodicals and websites targeted at foreign audiences. The main goal of such PR campaigns has been to dismiss their image of marginal, remote and depressed areas and trade it for much more positive images pertaining to creativity, dynamic development and the pursuance of innovative policies.

- *Cooperation with international organizations*. To confirm their status of global actors many regions and cities have endeavored at developing relations with international organizations. For example, they cooperate with UNESCO, UNIDO, EU, European Congress of Municipal and Regional Governments, Council of Europe, Barents Euro-Arctic Council (BEAC) and Nordic institutions.

For some Russian Arctic subnational units such as the Arkhangelsk and Murmansk regions, Republic of Karelia and Nenets Autonomous District, it has been particularly important to cooperate with the EU in the framework of the Kolarctic program (2007–2013) with the northern provinces of Finland, Sweden and Norway as partners (*Obshee prostranstvo sosedstva*, 2012).

It should be noted that cooperation with international organizations has been important for subnational units not only in terms of getting an additional leverage in the power struggle with Moscow but also in terms of opening them up for the worldwide processes of globalization and regionalization.

- *Increasing familiarity*. While Murmansk and Arkhangelsk enjoyed some international contacts even in the Soviet times, many other regions and towns of the Russian North were virtually behind the 'Iron Curtain' in the Cold War period. A fresh start was needed and it took, for understandable reasons, some time for the various subnational actors to familiarize themselves with the less bordered neighborhood. However, the familiarization was in some cases quite quick with new and more open spaces emerging in the previously quite closed borderlands.

DOI: 10.1057/9781137468253.0009

For example, the town of Kirkenes (northern Norway), consisting of some 7,000 inhabitants and growing, has in fact been a major meeting point for Russian-Norwegian contacts since the 1990s on a variety of levels. The town is multicultural in the sense that in addition to a Norwegian majority, there is a Sami population in the region, a considerable number of Finnish speakers around as well as an increasing number of Russians in the city and its vicinity. The latter group amounts to some 10 percent of the city's population (Rogova, 2008, p. 29).

As noted by Rogova (2009), a considerable number of Russians living in the Murmansk region nowadays view the Norwegian-Russian border in terms of a shared borderland. The border has turned far less divisive not just politically and in administrative terms, but also culturally and identity-wise. Rogova (2009, p. 31) claims that a borderland has emerged 'which is neither Russia, nor Norway to the full extent'. Russians visiting Kirkenes do not have the feeling of being abroad, as also indicated by Kirkenes being named 'Kirsanovka' or 'Kirik' with connotations of a small local and nearby entity/village in the language used in the Murmansk region. Visits have become frequent for reasons of shopping or, for that matter, using the Kirkenes airport for flights abroad.

In one of its aspects, the Norwegian-Russian cross-border cooperation can draw upon the somewhat idealized legacy of the so-called Pomor trade. These coastal trade contacts, which lasted for nearly three centuries before dwindling out after the Russian revolution in 1917, were quite important for the development of the northern areas. The legacy is frequently referred to and activated with the current-day cooperation and border-crossing seen as a return to traditional constellations.

Still another memory impacting in particular the local attitudes consists of a considerable number of German troops that were stationed in the region, pursuing quite repressive policies, and it was freed by the Soviet Army in 1944. For sure, the Cold War period, with perceptions of enmity as the prevalent approach, impacted the views on Russians. The negative views have, however, gradually changed and normalized. For instance, it became a common tradition to jointly celebrate the date of the liberation of the Murmansk region and East Finnmark from the Nazi occupants in October 1944.

- *City-twinning* has turned into one of the most successful and interesting forms of the CBC-TBC. Twinning stands for shared citiness and figures as a manifestation of new urban forms. It testifies, as an aspect of regionalization, with considerable clarity

DOI: 10.1057/9781137468253.0009

that the order-producing impact of national borders is waning. Northern Europe is particularly distinct with regard to successful experimenting with twinning. In this region, twinning is one of the departures used by cities in aspiring for a distinct, visible, and favorable profile, and it is, in this sense, part and parcel of their policies of place-marketing and branding in the context of the increasingly intense and transnational regionalization.

To coordinate and institutionalize twinning activities the City Twins Association (CTA) was established in December 2006. Altogether 14 cities were associated with the CTA, including 4 pairs located in Northern Europe: Valka-Valga (Latvia-Estonia), Imatra-Svetogorsk (Finland-Russia), Narva-Ivangorod (Estonia-Russia) and Tornio-Haparanda (Finland-Sweden) (City Twins Association, 2010).

These pairs differ by their experiences and effectiveness. While Tornio-Haparanda can be seen as a success story, Valka-Valga and Imatra-Svetogorsk can be viewed as relatively successful pairs whereas progress is still called for in the case of Narva-Ivangorod for the two towns to be credibly categorized as twins (Joenniemi and Sergunin, 2011, 2012).

With the outbreak of the world economic crisis (2008), and subsequent crisis of the Eurozone and the new round of the Schengen zone's expansion (2007), the whole twinning project in Northern Europe seems to have stalled (with a rare exception of the Tornio-Haparanda pair). Against this background the joint Kirkenes-Nikel initiative to launch a twinning project (2008) and plans to join the CTA look as a bold attempt to revive the very idea and spirit of twinning.

Twinning is perhaps still in its infancy and often oriented toward short-term rather than long-term perspectives but will probably get more established and stronger over time. In any case, it is called as concrete projects of debordering and deterritorialization for added theoretical insight as well as further empirical enquiry. Whereas the urban areas and larger cities stand out as the main engines of development in Europe's North, city-twinning remains nonetheless of considerable symbolic and political importance in testing the fixity of identities and questioning the divisive effects of borders.

- *Euroregions.* A number of the Russian border regions and municipalities have been involved in the Euroregion projects in the 1990s and 2000s. Euroregions are in essence administrative-territorial entities. They have been coined in order to promote

DOI: 10.1057/9781137468253.0009

> cross-border cooperation between neighboring local or regional authorities of different countries located along shared land or maritime borders. In fact, they constitute widely known mechanisms of cooperation between regions. For example, Karelia has participated in the Euroregio Karelia together with three Finnish neighboring provinces.

It appears in general, despite the rather successful implementation of some projects within the Euroregions framework, that the overall results remain rather modest. Moreover, quite often the Euroregions have basically been reduced to what common Russians call 'bureaucratic tourism', that is, exchanges between regional and municipal officials. With rare exceptions, the Euroregion do not seem to promote cooperation and horizontal links at the people-to-people, company-to-company or NGO levels. In other words, the Euroregions concept – being a potentially important tool for subregional cooperation – does not appear to work properly.

To improve Euroregions' performance the Russian and international experts have recommend (1) to clarify the legal status of Euroregions both in the Russian national legislation and European law; (2) that Euroregions are provided with a sustainable financial basis through EU and national long-term funding schemes; (3) that they receive funding to the local/regional budgets, and that the activities of Euroregions should be highlighted and visualized, so that lobbying for recognizable projects in national and international bodies becomes much easier (Lepik, 2009; Perkmann, 2003; Sergunin, 2006).

Indirect methods boil down to:

- *Influencing the federal legislation*. The local legislation not only legitimizes the external relations of the regions and municipalities but also affects the federal legislation. For example, the Novgorod law on protection of foreign investment (1994) later has been used by the federal parliament to draft a similar legislation. It may also be noted that the experiences of Kaliningrad accrued in the context of the special economic zone *Amber* have been quite helpful in developing the federal legislation on SEZ.
- *Capitalizing on national diplomacy*. Since national law envisages Russian regional and local governments' participation in international activities that concern them, subnational actors have aspired to impact federal diplomacies. For example, the Murmansk

DOI: 10.1057/9781137468253.0009

authorities assisted in 2010 the Russian Foreign Ministry in negotiating the Russian-Norwegian agreement on delimitation of maritime territories in the Barents Sea. The regional government of Murmansk assisted Russian diplomats and border guards in preparing the 2010 Russian-Norwegian agreement on the visa-free regime for the border residents.

Importantly, international cooperation between various subnational actors does not stand out as something isolated but is part and parcel of a broader Russian strategy of cooperation with Europe. To sum up, and in reality, national diplomacy and the paradiplomacy pursued on subnational level mutually reinforce and compliment rather than contradict each other.

- *Conflict prevention and resolution*. With time, Moscow has realized that regionalization can serve as an instrument for problem-solving with respect to Russia's relations with neighboring countries. For example, cooperation between Finland and Karelia has been conducive to an eventual solution of the Karelia issue, that is, a territorial dispute concerning the ceded Karelia. The cooperative links between Murmansk and various Norwegian actors contributed to the striking of a compromise between Moscow and Oslo on the demarcation of the Barents Sea. Likewise, the Alaska-Chukotka cooperation has eased the US-Russian tensions on the delimitation of the Bering Sea.
- *Exploiting the parliament*. The Russian regions have used the Federal Assembly to lobby their foreign policy interests at the federal level. The Council of the Federation (the upper chamber) made up of regional representatives stands out as the most popular vehicle for the regional lobbying. The senators quite often use their official foreign trips to find new partners for their home regions and promote them on the international arena.
- *Capitalizing upon the federal infrastructure*. In order to influence federal foreign policies, regional actors often utilize the institutional structure created by Moscow in the periphery. For example, the Russian Foreign Ministry has established a special unit of interregional affairs. Along with the diplomatic agency, other ministries and federal bodies such as the Ministry of Industry & Commerce, Customs Committee, Federal Border Service, have established offices in the regions engaged in intensive international

DOI: 10.1057/9781137468253.0009

economic and cultural cooperation. Theoretically, these agencies should coordinate and control regions' international contacts, although in reality they often serve as additional regions' leverages to put pressure on Moscow rather than federal center's instruments. The problem is that they are dependent on local authorities in terms of housing, salaries, professional careers and so on. Moreover, it also appears that these agencies are more often than not staffed by the locals with close connections to the regional elites.

It may also be argued that the growing dependence of the so-called power structures (armed forces, police, special services) on the subnational authorities – even under the Putin regime - cast doubts on their loyalty to the center.

- *Exploiting international organizations*. In order to pressure Moscow, regions have managed to use not only federal institutions but also to exert influence in the context of various international organizations. For instance, the northern areas of Russia have been represented at the Barents Regional Council (BRC) and consequently used this forum to develop direct ties with the neighboring regions of Finland, Norway and Sweden as well as to get a more privileged status inside the country (visa-free regime for border areas' residents, more liberal customs regime, federal funding for the development of international academic cooperation, etc.)

Furthermore, in real life subnational units usually combine both direct and indirect methods because they are of complimentary rather than mutually exclusive nature.

The Institutional framework

Obviously, the pursuance of paradiplomacy calls for a favorable institutional setting. A proper and supportive institutional framework allows various subnational units to be both active and successful in their paradiplomatic initiatives.

As indicated by Figure 4.1, the Arctic institutional network includes several layers.

DOI: 10.1057/9781137468253.0009

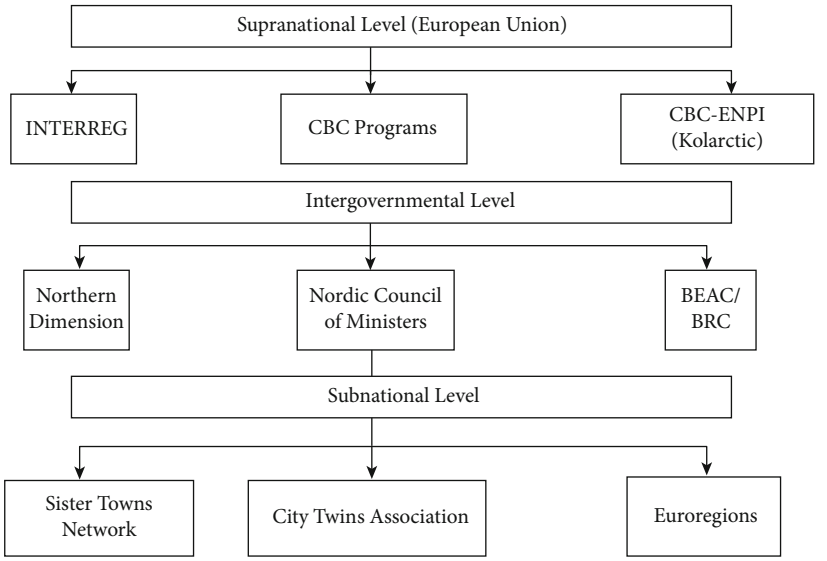


FIGURE 4.1 *Institutional network in the Arctic region*

On the top, ***supranational,*** level, there are institutions set up by the **EU**, the largest regional actor. For example, **European Territorial Cooperation** (ETC), previously known as INTERREG Community Initiatives, has been part of the EU policy since 1990 providing a framework for the implementation of joint actions and policy exchanges between national, regional and local actors from different member states and neighboring countries. The ETC has grown from a relatively small INTERREG program to a fully fledged strand of the EU regional policy with its separate regulatory framework envisaged for the period 2014–2020.

In 2007–2013 the Kolarctic program was run by the CBC program of the European Neighborhood Partnership Instrument. The Kolarctic program area includes the Norwegian provinces of Nordland, Troms and Finnmark, the Swedish Norrbotten, the Finnish Lapland and three Russian subnational units – the Arkhangelsk and Murmansk regions and the Nenets Autonomous District. The Republic of Karelia and Leningrad region have been eligible for some Kolarctic-related projects as well. The Finnish province of Lapland was responsible for the administration of the program. About 50 projects related to the development of economic and transport infrastructures, logistics, small and medium-size business,

DOI: 10.1057/9781137468253.0009

innovative entrepreneurship, preservation of the indigenous peoples' economies and cultures, research and education were supported and implemented by the Kolarctic program in northern Russia (http://www.kolarcticenpi.info/ru).

As to the future of the ETC, three strands (cross-border, transnational and interregional) will be maintained in the financial period of 2014–2020. This plurality will no doubt facilitate its implementation and the use of the already gained experience.

To avoid unnecessary interinstitutional duplication it is important that in the future ETC stronger emphasis will be given to the thematic concentration and strengthened links to other EU programs. However, it should be guaranteed that the themes to be presented by the European Commission as priority ones are sufficient to cover the differing needs of CBC-TBC. A delicate balance between a greater regional flexibility and the need to achieve results with scarce resources at hand has to be found. Balance, however, can be achieved only if all the parties to the negotiations are treating each other as partners.

As Hübner (2012) emphasizes, ETC should be strengthened, not only orally, but also financially. This is why the European Parliament (where various regional interests are better represented) consistently pushed for the 7 percent target in the ETC spending in all its three strands and all its dimensions, internal and external, in the multiannual financial programming period for the years 2014–2010.

The ***intergovernmental*** level is represented by several institutions. The **Northern Dimension** (ND), which has been transformed from the EU BSR/NE-oriented project to a system of equally funded partnerships between the EU and three neighboring countries (Iceland, Norway and Russia), is clearly the most important one. Currently, ND includes four partnerships (on environment; transport and logistics; public health and social well-being; culture) that are seen as promising venues for CBC-TBC with Russia. Since 2007 (when the transformed ND was launched) dozens of projects in these areas have been implemented in various regions, including those of Kaliningrad, Karelia, Murmansk. These projects have been supported by the international financial institutions such as European Bank of Reconstruction and Development, Nordic Investment Bank and Nordic Environment Finance Corporation.

The **Nordic Council of Ministers** is yet another important regional and intergovernmental actor. According to the Guidelines for the NCM's cooperation with Northwest Russia 2009–2013, the Council's priority

DOI: 10.1057/9781137468253.0009

areas include (1) education, research and innovation, including creative industries; (2) the environment, climate and energy; (3) promotion of conditions for economic cooperation and trade, including legislative cooperation, anticorruption measures and the protection of intellectual rights and patents; (4) the ND's partnerships – especially for public health and environment; (5) promotion of democracy and civic society through cooperation on local government and good governance, cooperation between parliamentarians, cooperation between the media and journalists and cooperation between NGOs (Nordic Council of Ministers, 2009, pp. 2–3). The NCM has several information offices in northwestern Russia.

The problem with the ND partnerships and NCM is that they have a multifocused agenda as their activities do not only cover the BSR but also the Barents and Arctic regions. Both institutions should, it seems, avoid duplications and there is clearly a need to establish an improved division of labor between them. This is especially important in view of the scarcity of resources available to the regional actors.

In institutional terms, the NE 'flank' is covered by the Barents Euro-Arctic cooperation. Along with the interministerial **BEAC** there is the **BRC** that includes 13 counties from Finland, Norway, Sweden and Russia (5 of them belong to the Russian North). For example, at its Kirkenes meeting in June 2013, the BRC adopted a new *Barents Program 2014–2018* with the aim to promote creative businesses and fast growing enterprises in the region; increase CBC to achieve economies of scale and quality of life; support joint management and preservation of natural resources; implement a joint climate change adaptation; enhance innovation and research cooperation by increasing critical mass; focus on missing cross-border links in the transport infrastructure; foster mobility across the borders for workers, enterprises, tourists and students; focus on cultural cooperation in order to develop mutual understanding and regional development (The Barents Euro-Arctic Council, 2013). Given the numerous overlaps with the 'sister' institutions involved at cooperation at the subnational level (ND, NCM, Arctic Council), BEAC and BRC are seeking synergy with them. These two councils have managed to install cooperation on project level with these bodies in areas such as climate change research and the Barents environmental hot spots elimination.

In addition to supranational and intergovernmental levels, there is a purely ***subnational*** layer represented by the City Twins Association, sister towns networks and Euroregions. These organizations are rather

DOI: 10.1057/9781137468253.0009

important in encouraging paradiplomacy in the Arctic region as they operate at the subregional and municipal levels. The problem with the upper institutional levels is that they are run by the EU bodies and/or national governments, not by subnational units themselves and, for this reason, mostly aim at the macro- rather than mezo- and micro-regional levels neglecting cooperation between the EU and Russian substate units. In contrast with the governmentally sponsored institutions these fora were created by subnational units themselves, in the bottom-up way.

A proper division of labor between all these actors is called for. For example, the BRC and ETC could be especially useful in developing and implementing joint projects with Russian regions in areas such as environment protection; energy; development of local transportation, cross-border infrastructure, public-private partnerships and fundraising for specific projects. In some spheres, such as regional transport systems; public health and quality of life; science, education and culture the ND and NCM could take a lead. The CTA is helpful in sharing best practices in urban development as well as solving common municipal problems.

To sum up, almost all the actors involved more or less clearly recognize that their task is to ensure the rightful architectural and financial demands for further cooperation in the NE.

Implications of paradiplomacy

In all, the record of the various Russian northern substate actors remains quite mixed with regard to the impact of the policies of the federal center. On the one hand, the aspirations of subnational actors and the center often overlapped. Their interests have been compatible in matters such as the promotion of cross-border trade, attracting foreign investment and know-how, development of cross- and transborder transport infrastructures, facilitation of visa regime for the residents of border regions, environmental projects, tourism, youth cooperation, cultural and academic exchanges. A number of success stories as to center-periphery cooperation can be identified consisting of visa liberalization agreements with Poland and Norway. The same can be said about the unfolding of the Euroregions Baltic, Saule and Karelia as well as city-twinning in the cases of Imatra-Svetogorsk and Nikel-Kirkenes.

Yet, on the other hand, the federal center has been quite uneasy about Russian regions and municipalities going international. Their conduct

DOI: 10.1057/9781137468253.0009

of paradiplomacy breaks with the state-centric logic of constructing political space, deviates and breaks with such logic and is therefore unavoidably conducive to worries about separatism and unwarranted external influences. The uneasiness has been particularly conspicuous in the case of Kaliningrad. At large, the reserved attitude has amounted to some distrust and, on a more concrete plane, lack of financial and administrative support to regions and cities aiming at bolstering their international contacts and cooperation. Some city-twinning projects (e.g., Narva-Ivangorod) and most of the Euroregions have therewith been compelled to remain promises rather than concrete projects with substantial contents. They stand out as interesting as the initiatives, but have not been given the chance to develop and mature into concrete projects. It may also be noted that the regional and local actors have, on a number of occasions, expressed their discontent with and mistrust in regard to the policies pursued by the center. These policies have been depicted by substate actors as being – at a minimum – inefficient. As evidenced by the mass protests in Kaliningrad against the regional and federal governments' crisis management policies in 2010–2011, the critique has contributed to Moscow's decision to reinstall the old system of popular gubernatorial elections.

In general, there is a growing feeling among the subnational actors that the very philosophy of the center-periphery relations in the field of external relations should be radically changed as the current one has proved to be quite inefficient. There is an obvious need on the federal side to improve its record if it is to cope properly with the challenges that substate entities are facing in the context of glocalization and in their pursuance of paradiplomacy. The federal policies should undoubtedly be better in tune and compliment rather than conflict with the policies of the subnational actors. This implies, in short, that the search for better coordination and an optimal combination of the international strategies of regional/local and central governments' international strategies is bound to continue.

Conclusions

It appears, overall, that a clear shift has taken place in the subnational units' motivation to engage in paradiplomacy. While in the Yeltsin the establishment of international contacts was a part and parcel of the

DOI: 10.1057/9781137468253.0009

survival strategy as well as an additional arm in the center-periphery tug-of-war, in the Putin and Medvedev eras it turned into a means to ensure units' sustainable development and improve their international image and attractiveness. It hence appears that the pursuance of paradiplomatic has become less anarchical and destructive, more pragmatic and skillful, better organized and coordinated with federal diplomacy. Although clashes can still be periodically identified, both sides – the center and periphery – now tend to increasingly see paradiplomacy as a common resource rather than an area of contention.

Various Russian subnational actors have, for their part, managed to develop an arsenal of specific methods of paradiplomacy that fall into two categories – direct and indirect. The latter includes seeking legitimacy and international recognition *via* the adoption of local normative acts, signing partnership agreements, establishing representative offices abroad, attracting foreign investment, improving international image, cooperating with international organizations, city-twinning as well as partaking in Euroregions. The indirect ones pertain to measures and policies such as influencing the federal legislation, exploiting the national parliament, capitalizing on federal diplomacy and infrastructure in the regions and exploiting international organizations. Despite the division, it has been broadly viewed that the combination of the direct and indirect strategies is the best guarantee of success in the conduct of paradiplomacy.

The Russian substate units have managed – with Moscow's help and on some occasions without it – to exploit the institutional network that has been shaped by supranational (EU), intergovernmental (ND, NCM, CBSS, BEAC/BRC) and subnational actors and now is available at the BSR/NE. This rather dense network, however, clearly needs better coordination, organization and division of labor to eliminate bottlenecks, bureaucratic procedures, parallelisms and duplications.

As for the paradiplomacy's implications for the Russian domestic and foreign policies it can also have some negative consequences. It may under adverse conditions amount to a further disintegration of the single economic, financial, administrative and cultural space. Furthermore, it may be conducive to the rise of some rather parochial interest group as well as the emergence of self-willing and outward-oriented local elites, and the outcome may amount to partial regionalization and privatization of security and military structures. The negative record can also include inconsistencies in the application of international strategies

DOI: 10.1057/9781137468253.0009

caused by the regional elites' intervening the decision-making process and even – at least theoretically – contribute to the rise of separatism and secessionism, which could result in the disintegration of the country.

However, on the contrary, the gradually growing international activities of subnational actors also bring a number of positive changes. First and foremost, paradiplomacy encourages further democratization of the Russian administrative system, including managing the external relations of regions and municipalities. It has also – in being a part of the devolution process – helped to discredit the 'top-down' model of the Russian federalism and encouraged a replacement with the 'bottom-up' process with very lively grassroots. Moreover, international cooperation has allowed many regions, and in particular some remote and border-located regions, not only to survive the transition period but also turn their marginality into an advantage.

At large, the devolution of power that has taken place in Russia has boosted the conduct of foreign relations for the part of the subnational units. It has, in fact, facilitated their turn into some quite real international actors. It is also obvious that paradiplomacy has served as an instrument for problem-solving with respect to Russia's relations with neighboring countries and has, in this regard, an important integrative function. The reaching toward the international by numerous subnational actors has actually counteracted trends pointing to Russia's marginalization or international isolation. Moreover, paradiplomacy has been conducive to democratization and it will undoubtedly continue to play an important transformative role in Russia's future. Rather than contributing to disintegration, as has been sometimes feared, it appears to have served as a catalyst for the pursuance of successful reforms and partaking in international integration.

References

Ackrén, M. (2014) 'Greenlandic Paradiplomatic Relations', in L. Heininen (ed.), *Security and Sovereignty in the North Atlantic* (Basingstoke: Palgrave Macmillan, Palgrave Pivot), pp. 42–61.

The Barents Euro-Arctic Council (2013) *The Barents Cooperation,* at www.barentsinfo.fi/beac/docs/Barents_Cooperation_information_English_October_2013.pdf, date accessed January 19, 2014.

DOI: 10.1057/9781137468253.0009

City Twins Association (2010) *History of the City Twins Association,* www.citytwins.org/en/page/13/, date accessed October 12, 2011.

Danuta. Hubner, (2012) 'Regional Policy After 2013: Towards new European Territorial Cooperation.' *Baltic Sea States Subregional Cooperation Newsletter* (December): 1–2, at www.bsssc.com/upload/dokumenty/f_377.pdf, date accessed January 19, 2014.

Duchacek, I. (1990) 'Perforated Sovereignties: Towards a Typology of New Actors in International Relations', in H. Michelmann and P. Soldatos (eds.), *Federalism and International Relations: The Role of Subnational Units* (Oxford: Claredon Press), pp. 1–33.

Joenniemii, P. and A. Sergunin (2011) 'When Two Aspire to Become One: City-Twinning in Northern Europe', *Journal of Borderlands Studies,* 26(2), 231–242.

Joenniemi, P. and A. Sergunin (2012) *Laboratories of European Integration: City-Twinning in Northern Europe* (Tartu: Peipsi Center for Transboundary Cooperation).

Kuznetsov, A. (2009) *Paradiplomacy as the Domestic Source of Russian Foreign Policy*. Paper Prepared for the 50th Annual International Studies Association Convention, New York, February 15–18, 2009, http://citation.allacademic.com//meta/p_mla_apa_research_citation/3/1/1/7/5/pages311753/p311753-1.php, date accessed January 7, 2014.

Lepik, K-L. (2009) 'Euroregions as Mechanisms for Strengthening Cross-Border Cooperation in the Baltic Sea Region', *TRAMES: Journal of the Humanities and Social Sciences,* 13(3), 265–284.

Nordic Council of Ministers (2009) *Guidelines for the Nordic Council of Ministers' Co-operation with North-West Russia 2009–2013*, www.norden.org/en/nordic-council-of-ministers/ministers-for-co-operation-mr-sam/russia/documents/guidelines-for-the-nordic-council-of-ministers-co-operation-with-northwest-russia, date accessed September 12, 2012.

Obshee prostranstvo sosedstva [Neighborhood Common Space] (2012) http://www.kolarcticenpi.info/c/document_library/get_file?folderId=101794&name=DLFE-8618.pdf, date accessed March 25, 2014.

Rogova, A. (2008) *From Rejection to Re-embracement. Language and Identity of the Russian Speaking Minority in Kirkenes, Norway* (Kirkenes: Barents Institute).

DOI: 10.1057/9781137468253.0009

Rogova, A. (2009) 'Chicken Is Not a Bird – Kirkenes Is Not Abroad. Borders and Territories in Perception of the Population in a Russian-Norwegian Borderland', *Journal of Northern Studies,* 1, 31–42.

Sergunin, A. (2006) *Kaliningrad and the Euroregions* (Nizhny Novgorod: Nizhny Novgorod State Linguistic University Press, INTAS Working Paper No. 3).

Wellmann, C. (1998) 'Introduction', in C. Wellmann (ed.), *From Town to Town. Local Actors as Transnational Actors* (Hamburg: LIT Verlag), pp. 9–14.

DOI: 10.1057/9781137468253.0009

5

The U.S. Arctic Policy Agenda: The State Trumps Other Interests

Steven L. Lamy

Abstract: *This chapter explores the recent national debates within the Arctic states about the economic, political and human security challenges presented by climate change, growing competition for resources and new political and economic realities. The study identifies how the Arctic arena fits with the larger foreign policy approach of the state in question. Utilizing an analytical framework developed by Stephen Krasner to explain U.S. raw materials investment policy the study suggests that U.S. policy is best explained as being statist meaning the state and its central decision makers are autonomous actors and their choices serve the interests of those actors. The study interprets that the issue leaders are the key actors who define the debates about military, environmental and human security issues that define the Arctic policy agenda.*

Keywords: Military security – economic security; US national security strategy; US Arctic policy; State – Statist; Actors – Issue leaders; Framing

Heininen, Lassi, ed. *Future Security of the Global Arctic: State Policy, Economic Security and Climate*. Basingstoke: Palgrave Macmillan, 2016. DOI: 10.1057/9781137468253.0010.

Introduction

The Arctic is an example of a common resource region that faces enormous challenges due to climate change that will have tremendous costs for the entire world. To be specific, the Arctic icecap is receding. Though climatologists have warned of melting ice and rising seas for two decades, many began paying attention to it only after the dramatic shrinkage of polar ice in the summer/fall of 2007. With receding ice and warming weather came renewed focus on two long-standing dreams: a viable maritime passage between Europe and Asia, and a bonanza of oil and gas beneath the Arctic seas. Yet both commercial shipping and natural resource extraction raise the specter of enormous environmental damage, which none of the main Arctic powers – Canada, the Russian Federation, the United States, Iceland, Norway, Sweden, the Kingdom of Denmark and Finland – are fully equipped to handle. Also, both raise complex territorial and resource claims whose resolution requires a legal framework that exists only in rudimentary, ad hoc form. The Arctic Council, the UN and various NGOs have begun working to create a set of rules that will govern the activities of states and non-state actors who are seeking access to resources and transportation routes. It is these emerging structures of 'global governance' that may determine the future of this region, which covers over one-sixth of the earth's landmass and is the home for some four million people.

The Arctic or the Far North has become an area where the littoral states, indigenous communities, energy and resource corporations, environmentalists and external actors like China, Japan South Korea and India are focusing their attention on creating rules to manage the potential increase in commercial activities and the new security concerns in the region. To date, most of the concerned actors seek to sustain the environment and protect the human communities in what the Arctic scholar Oran Young (1992) has called a *shared resource region*. The success of the Arctic Council may have a great deal to do with its lack of jurisdiction over military or security issues. Yet, all its members are well aware of the potential security challenges presented by an Arctic thaw. Waters off the coast of Alaska and into Canada are turning into a navigable ocean. Every major oil company is seeking access to some 90 billion barrels of oil and trillions of cubic feet of gas deposits. In addition, drug dealers, arms merchants and even terrorists might use these new routes to gain access to Europe, North America and Asia. Russia

DOI: 10.1057/9781137468253.0010

is building its forces for both security and rescue purposes and the US and Canadian governments are talking about enhancing their forces in their territories. The North American Aerospace Defense Command (NORAD) has gone beyond drills in this region. F-15 fighters have been scrambled over 50 times during the past five years in response to Russian long-range bombers that have flown over US territory. The Chinese, now with an observer status on the Arctic Council, recently sent an icebreaker, the *Snow Dragon*, on an 'unprecedented voyage' across the Far North through the Northwest passage.

Climate change may seem great for transportation and access to resources but how will states deal with the challenges to the environment, the indigenous communities of the Far North and to security within the region? This is an area where cooperation has been the major policy paradigm. A new Cold War or conflict is unlikely and any *saber rattling* may be just for domestic political consumption.

In this chapter, the focus will be primarily on the United States, but we will lay the groundwork for a more comprehensive view of the other Arctic Council members and some of the states granted observer status in 2013.

Major impacts of climate change in the Arctic

Although fluctuations in climate patterns in the Arctic have occurred naturally throughout history, there is strong evidence that 'neither the warming trend nor the decrease of ice extent and volume over the last two decades can be explained by natural processes alone' (Johannessen et al. 2004, p. 337). In particular, Arctic amplification, 'the phenomenon of faster warming toward the northern pole than at lower latitudes', has made the Arctic region susceptible to the effects of climate change much earlier than the rest of the world (Overland, 2011, p. 180). This is largely due to the positive feedback loop that is set in motion with continued warming. As warmer sea surface temperatures cause Arctic sea ice to melt, the *albedo* effect of the polar ice is significantly decreased, meaning that more energy is absorbed by the ocean. Absorbing more energy warms the waters even further, creating a cycle of melting and warming that will have a significant effect on the Arctic region as warming continues (Overland, 2011, p. 180). This positive feedback loop may cause significant increases in sea level, which would pose grave risks for coastal communities around the world, not only in Arctic communities. Studies

DOI: 10.1057/9781137468253.0010

of the seasonal differences in sea ice cover in the Arctic from 1978 to 2003 reveal a 7–9% per decade reduction in the area of thicker, multiyear ice (ice that has survived at least one summer melt) over the last two decades' (Johannessen et al., 1999). Thus, the increase in global temperatures has a direct effect not only on the total sea ice cover in the Arctic sea, but also on the sea level around the world. Sea level rise is not the only possible consequence of melting ice. In recent decades, decreases in ice cover have allowed new shipping lanes in the Arctic Ocean to open. These shipping lanes could play a vital role in trade by creating viable alternative routes for the exchange of goods between northern states. If shipping routes such as the Northeast Passage (NEP), the Northern Sea Route (NSR) and the Northwest Passage (NWP) become commercially feasible routes, the Arctic will see a considerable increase in shipping traffic. This increase in traffic could alter the region, threatening marine mammals as well as the communities that rely upon a safe and healthy environment. With climate change, natural gas, oil and other critical minerals will become more accessible and drilling and mining is likely to increase. A study by the US Geological Survey (2008) estimates that 25 percent of undiscovered oil and gas can be found in the Arctic region. Climate change may start a scramble for resources not seen since the 19th-century gold rush in California.

Arctic wildlife and organisms are facing severe habitat loss and endangerment due to the effects of climate change. Arctic species that will be the most affected by the effects of climate change are those with 'limited distributions and specialized feeding habits that depend on ice for foraging, reproduction, and predator avoidance, including the ivory gull, Pacific walrus, ringed seal, hooded seal, narwhal, and polar bear' (Post et al., 2009, p. 1355). These organisms often rely on native Arctic plants as a food source; thus a disturbance to the lower trophic level of the Arctic food web could threaten larger mammals. Although Arctic ecosystems may seem incredibly simple, in reality the systems are incredibly diverse and complex, and the alteration of one aspect within the system could affect the entire ecosystem. As such, the interrelated 'nutrient cycling between terrestrial, freshwater, and marine components, which may be subject to rapid modification with future warming' is critical (Post et al., 2009, p. 1357). All this shows that the 'Anthropocene' is at play in the Arctic, as Finger argues in his chapter. Finally, climate change may have an impact on the security strategies of the Arctic states, as Heininen discusses in his chapter.

DOI: 10.1057/9781137468253.0010

Explaining US Arctic Policy

For the United States, the Arctic Circle definition includes 'the northern most third or so of Alaska, as well as the Chukchi Sea, which separates that part of Alaska from Russia, and US territorial and Economic Zone (EEZ) waters north of Alaska' (O'Rourke, 2014, p. 1). Climate change, a global phenomenon, is shaping both the domestic and foreign policies of the eight Arctic states. However, these states all have policy traditions that are defined by more permanent factors like geography and history, traditions and political culture. During the Cold War, the geopolitical and ideological conflict between the United States and Russia defined most of the national strategies of the Arctic states. In 1946, Lester Pearson, a Canadian politician and diplomat, reminded the world of the changing geopolitical importance of the Arctic region (Critchley, 1987, p. 769):

> Not long ago this vast Canadian Arctic territory was considered to be nothing more than a frozen northern desert without any great economic value or any political or strategic importance. We know better now.

The global importance of the Arctic was shaped by five major factors: changes in the strategic doctrine of either the Soviet Union or the United States; changes in international law or regional treaties; the introduction of new military technology; the economic value of resources; and political developments in the region including government interactions with indigenous populations. The Cold War paradigm emphasized the national security importance of the region (Critchley, 1987, p. 777).

In theory, the new Arctic paradigm focuses more on human and economic security and on issues such as resource extraction, shipping, search and rescue, sustainable economic growth and the well-being of native peoples. To elaborate, Norway's High North Strategy (2006) includes some 22 action points that started to go into effect in 2009. The dominant themes in the Norwegian document is cooperation and building a safe and sustainable economic development for the region and being a responsible and consistent player and regional and global institutions promoting cooperation and collective action. The document states:

> The Government plans to develop new knowledge, promote industrial growth, increase the level of employment, improve living conditions and conserve the environment, renewable resources and the multi-ethnic community of the

DOI: 10.1057/9781137468253.0010

> High North. Norway's international position as a responsible and significant actor in the High North. (2006, p. 49)

An emerging security dilemma?

In 2014, the Arctic region is a must-be-seen as a peripheral policy area for the United States. All of the policy activity has been shaped by an environment of cooperation and concern for the common challenges faced by all of the members of the Arctic Council. However, as US and Russian relations sour over Russia's involvement in Ukraine and Syria, some have suggested that a new militarization of the Arctic and a return to Cold War security policies may be on the horizon (Mitchell, 2014). In 2008, the Security Council of the Russian Federation emphasized the importance of maintaining a 'necessary combat potential' to protect national interests (Zysk, 2010). At this time, Russian authorities were more concerned with nontraditional security threats such as piracy and terrorism at sea and human trafficking. In 2008, the Russians were committed to maintaining the Arctic region as a zone of peace and cooperation. More recently, Putin and other Russian leaders have made statements and introduced new policies such as creating a new Northern Fleet Joint Strategic Command and reopening a military base in the Novosibirsk Islands that might cause concern among the military realists in the United States. But these actions do not suggest an expansionist Russian security policy. Instead, they suggest a desire to protect the vast Russian Arctic territory.

Consider the words of Vice Prime Minister Dmitry Rogozin, quoted in an April 2014 Reuters article:

> It is crucially important for us to set goals for our national interests in this region. If we don't do that, we will lose the battle for resources which means we will also lose in a big battle for the right to have sovereignty and independence. (Mitchell, 2014, p. 2)

These are policies that any or all of the Arctic Council members might pursue. These are not direct challenges to peace and stability in the Arctic. There is not likely to be a war for resources in the region because of the success of low-range cooperative security efforts. The Russian build-up does not provide a security threat for the United States but some politicians may frame it as such to serve their electoral interests.

Other factors pushing the Arctic region to the forefront of US policy interests include the oil and gas resources, Chinese interests in securing

DOI: 10.1057/9781137468253.0010

resources in the region and the interests of native peoples and environmentalists. In this chapter, we are asking two questions:

First, are US Arctic policies best defined by statist goals or are US Arctic policies shaped by public and private institutions and interests? Second, who are the issue leaders defining and promoting US Arctic policies? It is to these questions we now turn.

Statist, Liberal or Marxist Explanations?

Statist Arguments. In his thoughtful study, *Defending the National Interest* (1978), Stephen Krasner explores the relationship between state and society and examines 15 case studies in the area of raw materials investments. Krasner wants to understand the factors and forces that best explain how policy is made in this policy area. Which model or paradigm best explains policy choices in the area of raw materials investments? Krasner's work wonders if a statist, liberal or Marxist model best describes the choices made by US policy-makers? To further elaborate, are policy choices best explained by the interest of the state and its various agencies or by the competition among various nongovernmental interest communities seeking to control the policy process? Still, Marxist or critical theory views ask whether US raw materials policy is controlled by corporations or wealthy capitalist elites.

Krasner argues that the state or national interests shape policy in this area not special interest groups or private capitalist interests. Thus, the state is an autonomous actor. Further, the goals of the state cannot be 'reduced to a summation of private desires' (Krasner, 1978, p. 6). Krasner argues that the material and ideational interests of the state determine policy and these statists goals overrule corporate interests and the interests of both domestic and global civil society actors in specific policy areas. His work confirmed this proposition in the area of raw materials investment policies for the United States. His study found that national leaders representing departments and bureaucratic agencies are capable of defining and securing the national interest in policy areas where there is not a great deal of public interest or that public participation in the policy process is constrained or repressed by public authorities.

Krasner (1978, p. 331) found that in the area of raw materials the United States has three clear goals:

1 Develop policies to maximize the competitive structure of the global market and thus keep the prices of key commodities low.

DOI: 10.1057/9781137468253.0010

2 Increase the security of supplies of critical natural resources on which the United States depends for economic and political security and stability.
3 Implement policies that help secure more general foreign and security policy objectives.

These three goals apply to the current US policies in the Arctic as well. The Obama administration's May 2013 National Security for the Arctic sets the strategic priorities for the Arctic region. The most recent national strategy document repeats many of the guiding principles of the 2010 National Security Strategy:

> The United States is an Arctic Nation with broad and fundamental interests in the Arctic Region: we seek to meet our national security needs, protect the environment, responsibly manage resources, account for indigenous communities, support scientific research, and strengthen international cooperation on a wide range of issues.

Other elements of the 2013 document include advancing US security interests, protecting and properly managing Arctic resources; promoting scientific research and more traditional ways of understanding the Arctic and working to strengthen international cooperation; advancing the interests of all Arctic states and promoting 'shared Arctic state prosperity' through both bilateral and multilateral institutions (*US National Strategy for the Arctic Region*, 2013, p. 2).

These may be similar to the interests of private sector actors; however, due to the traditional lack of interest in the Arctic region among the US public, until recently, the US government has been free to develop its Arctic policies with only minimal pressures from the private sector or other governments. However, with the growing success of the Arctic Council and the proliferation of both bilateral and multilateral treaties and agreements, all Arctic states have increased their regional, national and collective activities in the Arctic. The Arctic states are being pushed by global environmental NGOs and various indigenous communities who that recognize the political, economic and environmental challenges faced by the Arctic states and the rest of the world as climate change opens the Arctic to various commercial interests. National and global civil society actors are working to shape US Arctic policy but their impact is limited because Alaska and the Arctic region is not a priority issue in the other 49 states.

DOI: 10.1057/9781137468253.0010

Liberal Arguments. The more widely used paradigm used to explain the policy-making process in liberal democracies is the liberal or pluralist view of the policy process. This paradigm suggests that the 'state' is not distinct from society. Most importantly, the state serves as a 'referee among competing social groups' all trying to influence policy formulation (Krasner, 1978, pp. 5–7). The interest community that seeks to shape domestic and foreign policy includes the private sector and the not-for-profit or citizen sector. Corporations like Shell, Conoco and Statoil all plan to drill off the coast of Alaska. According to a special report in the *Economist* (2012), these companies have spent billions of dollars without drilling a working well.

In foreign policy today, states compete with non-state actors for the attention of citizens in critical policy areas. Greenpeace activists prevent oil exploration or disrupt fishing vessels in protected waters challenging both private and public actors. NGOs are civil society actors or nongovernmental actors with specific interests in a given policy area. The issues that define the policy agenda in most Arctic states are being promoted by a variety of NGOs, research institutes, foundations, labor unions, social movements and indigenous communities living in the Arctic region. For example, legal challenges from Inuit hunters and environmental groups prompted the Obama Administration to issue a moratorium on offshore Arctic exploration. These organizations, part of what we call civil society, have more influence in the Nordic social democratic states.

NGOS like Greenpeace, WWF and the Sierra Club play a major role in four policy areas:

1. The *articulation* of policy concerns to significant decision makers and the transmission of knowledge and expertise to the general population and to interested public officials.
2. Providing critical information for those charged with the *formulation* of policy and monitoring the legislative process and building coalitions of like-minded individuals and organizations.
3. Once the new policy is approved by public officials, NGOs and other interest groups assist public authorities with the *implementation* of policy programs. Often public and private partnerships are created to implement policy and enforce rules.
4. Civil society actors play an important role in *evaluating* the success of failure of policy programs. These actors let both governments

DOI: 10.1057/9781137468253.0010

> and citizens know the status of their programs by making certain policy-makers are held accountable and are effective with their efforts.

This liberal-pluralist paradigm describes an ideal liberal democracy. It is a particularly good perspective to describe policy-making in smaller social democracies like the Nordic states and to some extent Canada. Clearly, this paradigm does not describe the policy process in Russia, and in the area of Arctic policy, it does not perfectly describe the policy-making process in the United States.

For example, Sweden's political system has been called corporatist. In this political system, interest communities like environmental groups, labor unions and oil corporations have access to elected officials and bureaucrats who make both domestic and foreign policy. Richard Hoefer (1998, pp. 3–4) explores the impact of corporatist structures on political advocacy groups in Sweden. He describes three corporatist structures in particular that give these groups the ability to create and shape policy including all the policies aimed at governing the Arctic region. Hoefer describes three corporatist structures:

1. The government sets up and funds Royal Commissions and appoints voting and non-voting members to study policy concerns and propose legislation.
2. The government of Sweden has established a 'remiss system' that allows interest groups and individuals to comment on proposed policy. Many of these groups believe that the remiss system gives them greater access to policy-makers than the Royal Commissions.
3. Sweden has established 'layperson councils' that oversee the implementation of policies and work closely with policy-makers.

Similar corporatist systems exist in both Norway and Denmark. Finland, while not necessarily corporatist, has an open liberal system that allows for and encourages interest group participation in working groups with civil servants and in hearings and ad hoc committees that advise the policy process (OECD, 2010).

The arrest of the Greenpeace's 30 activists in autumn 2013 might suggest how activist interest communities are and will be treated in Russia. Russia has worked with many Western oil companies but the authoritarian nature of its political system suggests that the interests of Putin and the oligarchs will shape Russian Arctic policies.

DOI: 10.1057/9781137468253.0010

The United States is certainly tolerant of interest groups and they do attempt to shape policies but there is minimal interest about Arctic issues in the United States. Major oil, mining and fishing interests are active in the US Arctic but so are environmentalists and Alaska Native groups.

Marxist Views. A Marxist perspective would argue that the national policies reflect the interests of the various corporate actors. Thus in all of the Arctic states, oil, mining, shipping and fishing industries control the policy-making process in these states. There are plenty of oil companies with exploration and drilling activities in the Arctic region including Shell, Chevron, British Petroleum (BP), Statoil, Norsk Hydro, Exxon Mobil and Russian state-owned companies. With the exception of Russia and Norway, where the oil industry represents the interests of the state, these corporations compete with other interest communities to shape policy. The corporations clearly have greater support among Republican politicians.

The critical Arctic resource region for the United States is the Chukchi and Beaufort Seas. In 2008, the US Minerals Management Services leased some 29 million acres of the Chukchi offshore shelf for $3.4 billion. Exploration wells have been drilled but full production will not take place for several years. BP operates the largest oilfield in the United States in Prudhoe Bay. In 2009, this area produced 400,000 barrels of oil a day. These corporations clearly have some influence in Alaska because of the jobs they provide; but a recent decision by a US federal court caused Shell to halt its drilling activities in Alaska's Arctic region suggests that both environmental and indigenous peoples' organizations are having an impact as well. This challenge to the Bureau Ocean Energy Management decision to allow for offshore drilling was led by Earth Justice and other organizations such as Greenpeace and Resisting Environmental Destruction on Indigenous Lands (REDOIL), a network of Alaskan native peoples (Worth, 2009, pp. 10–12).

The more effective groups challenging the status quo in the Arctic tend to be environmental activists like Greenpeace, Earth Justice and World Wildlife Fund as well as various indigenous groups who that are concerned with how resource exploration will impact their way of life. The native peoples do not present a unified front in defiance of resource exploration. Some indigenous communities claim that any attempt to block investment in the Arctic challenges their economic rights. They are also aware of their own version of the Arctic paradox as they become

DOI: 10.1057/9781137468253.0010

dependent for employment and commerce on industries that may eventually threaten their very existence.

A Clash of Political Cultures?

Political culture and the political structure of a state plays a major role in shaping most policy debates. The Nordic members of the Arctic Council are progressive social democratic states. Many citizens and their leaders in these states would describe their country as a mentor or guide state. Although an ideal type, John Erik Fossum (2006, p. 783) describes these *gidsland* or guide states as follows:

> A nation that progressively guides other countries locked in pitiful nationalist struggles for power, dominance and religious zeal to proper international behavior consisting of respect for the international legal order, the rights of men, and free trade as the best way of ensuring prosperity for all.

In terms of ideational goals, Nordic states and Canada are all cooperative multilateralists willing to share sovereignty and each of these states works hard to create rule-based institutions. The Arctic Council is exactly the kind of institution middle powers seek to create and it is where their leaders hope Arctic policy will be debated and formulated. While Russia and the United States are great powers and generally share a grand strategy that emphasizes *primacy* or maintaining both relative and absolute power in order to secure national interests, the remaining members of the Arctic Council embrace a *cooperative security* strategy. These states are all strong advocates of creating a rule-based system in the Arctic. While independence, sovereignty and the protection of national interests remain critical priorities for all of the Arctic states, the 2011 search and rescue agreement may suggest a willingness to share sovereignty in the future.

This combination of Grotian and Kantian thought is built upon a political culture that encourages citizens to be informed and involved in all political areas. This form of reflexivity encourages citizens to be 'actively involved in an on-going process of self-examination of who we are, who we should be and who we are thought to be' (Fossum, 2006, p. 826). Thus, Krasner's liberal paradigm best explains the Arctic policies of the Nordic states. These states do have national interests, and state agencies play a major role in implementing policy decisions. But citizens

DOI: 10.1057/9781137468253.0010

are more likely to be involved in the articulation of policy concerns, the actual formulation of policy and the on-going evaluation of the final policy program.

In the case of the United States, citizens tend not to be interested in foreign policy and a significant number are disdainful of the big government. For most Americans, the Arctic is considered a 'distant place' that has little or no bearing on their quality of life. The lack of interest and attention allows the state to frame the critical issues and set the priorities with only minimal public involvement. In the case of the United States, this gives issue leadership to those departments and agencies concerned with security and commercial interests. The recent behavior of the Russian government in Ukraine may have pushed US Arctic policy back to the same government agencies that guided US Arctic strategies during the Cold War. Likewise, China's growing interest in the region may create a great power rivalry in an area that is now known for in need of cooperation and collaboration now. Krasner's statist argument provides the best explanation for US Arctic policies.

US Arctic Strategy and Policy

The majority of foreign policy is formulated and implemented largely out of public eye. Certain high-profile issues or major events may cause the public to pay attention to a particular issue area. Day-to-day interactions between cabinets and parliaments or the Executive Branch and Congress is where most foreign and security policies are shaped, debated and finally formulated. In any policy process leaders generally emerge. These issue leaders are likely to emerge when the formal processes of governance are fragmented and polarized. Issue leaders may also emerge when there is very little interest or awareness in a policy area. In the case of U.S. Arctic security policy, the conditions are just right for the emergence of a powerful and influential issue leader to guide policy debates (Hersman, 2000, p. 5). During the Cold War, the U.S. military dominated Arctic policy debates and the military bureaucracy still leads US policy in this policy area. The members of Congress from Alaska may have the personal drive and political interests to become issue leaders but most of their colleagues in Congress from the lower 48 states do not seem to be interested in the day-to-day issues that define the Arctic policy landscape.

DOI: 10.1057/9781137468253.0010

Hersman (2000, pp. 3–4) labels major clashes or high-profile events in policy areas *waves*. The day-to-day interactions among policy-makers that create a place where most foreign policy is formulated is called the *ocean*. Arctic policy debates and actions during the Cold War fit mostly in the *ocean* category. Cold War security specialists from Henry Kissinger to Jeanne Kirkpatrick and security institutions in the United States as well as political leaders from Eisenhower to Bush kept Arctic policy in the ocean. The US global grand strategy of *primacy* meant that fear of Soviet expansion necessitated a global military presence for the United States. In this *zero-sum* environment, neither the US nor the Soviet Union were going to allow the Arctic to become a potential battleground. Clearly, with the exception of a few crises or *waves,* the US security policy in the Arctic worked effectively as part of the containment of the Soviet Union. With the end of the Cold War, the analytical and ideological framework and the budget priorities for global containment of communism ended as well (Hersman, 2000, pp. 6–7). Yet, many of the policy arguments about containing a great power rival like the Soviet Union did not die with the end of the Cold War. The norms and values associated with great power rivalry in a potentially contentious *shared resource region* like the Arctic still motivate US policy. Concerns over Russia are real for those who still formulate and implement US defense policies. China's interest in the region and its focus on resources and transportation routes in the Arctic further complicates the security debates in the United States. Given that the issue leaders in the United States are state actors, namely, the US Coast Guard, the US Navy and the Commerce Department. It is to their priorities that we now turn.

US National Security Strategy

The Obama Administration released its *National Strategy for the Arctic Region* in May 2013. This document presents US strategic priorities for the region (see also Corgan, 2014). The document includes both areas of policy effort and guiding principles. The principles that guide US policy in this area include the following:

1 Safeguard peace and stability by acting in concert with allies and partners to maintain a conflict-free environment in the Arctic and

DOI: 10.1057/9781137468253.0010

to maintain the freedom of the seas and airspace for commercial and security reasons.
2. Use both scientific and traditional or indigenous information and knowledge to make the best policy decisions.
3. Develop partnerships with Alaska, the Arctic states, other international partners and key private sector actors to develop critical resources and manage economic activities in this shared resource region.
4. Work with Alaska Native populations, recognizing both their interests and their legal relationship with the United States, to formulate and implement effective Arctic policies.

US strategy is focused on three critical areas of policy. These policy priorities are greatly influenced by climate change and the new Arctic environment such as the diminishment of sea ice and opening of maritime sea lanes. U.S. Arctic policy priorities include:

- Advancing US security interests that include safe commercial and scientific operations and protecting US territory and national interests in this region.
- Protecting the Arctic environment and conserving its resources for future generations.
- Working to promote international and regional cooperation through the Arctic Council and other multilateral organizations toward protecting the environment and providing national and human security and also working toward accession to the UN Convention on the Law of the Sea (UNCLOS).

It should be noted that there is no major issue leader emerging outside of the Executive Branch which includes the State Department and the Department of Defense. In addition, there are no significant policy coalitions or issue clusters made up of members of Congress, the Executive branch and the private and not-for-profit sectors. It might be that it is too early for a coordinated policy related to the Arctic. However, climate change and the resulting geopolitical will necessitate a new focus on this region. The three main pillars of US policy are national security, economic development and science and research. Several studies suggest that US policy will be increasingly shaped by economic factors (CSIS), as is the case with most of the other Arctic states according to their national strategies (see Heininen, 2011).

DOI: 10.1057/9781137468253.0010

US Policy Actors: Department of Defense (DOD)

In response to a request from the House of Representatives, the Department of Defense provided a report on Arctic operations in May 2011. Similar to US security goals in other regions of the world, the goal is to maintain a stable and secure region where national interests are safeguarded and the homeland is protected. The changes in the Arctic are recognized as presenting special challenges and opportunities:

> The Arctic is warming on average twice as fast as the rest of the planet, resulting in increased human activity in the region. Although some perceive that competition for resources and boundary disputes may result in conflict in the Arctic, the opening of the Arctic also presents opportunities to work collaboratively in multilateral forums to promote a balanced approach to improving human and environmental security in the region. (DOD, 2011, p. 2)

The Navy is the largest Arctic actor within the Department of Defense and is the key actor in the implementation of US national policy in the Arctic. The Navy released the 'Arctic Roadmap– in October 2009. This document focuses attention on the role climate change will have on economic security, the environment, and U.S. sovereignty and national interests. It also promotes cooperation among US agencies and international partners as the best way forward for achieving policy goals in this region.

DOD priorities are consistent with the policy goals of any major power in a competitive international system. The DOD and Homeland Security are charged with protecting the citizens of the United States but also with maintaining the liberal world order and the institutions and laws that define this system. Thus, DOD security objectives in the Arctic include: using military resources to maintain freedom of navigation; organizing resources to prevent terrorist attacks; support missile defense and early warning systems operating in the region; operating a fleet of icebreakers and ice-class ships in order to maintain a maritime presence; and develop an effective search and rescue and disaster response system.

US Policy Actors

Department of Homeland Security – the US Coast Guard

The US Coast Guard has been operating in the Arctic since 1865. As the maritime component of the US Department of Homeland Security and

DOI: 10.1057/9781137468253.0010

has 'specific statutory responsibilities' in US Arctic waters. The Coast Guard may be the most active participant in Arctic policy. As a security and law enforcement agency the Coast Guard must respond to a 118% increase in maritime shipping and transit from 2008 to 2012. They must also deal with the effects of climate change that will open this territory to those public and private actors seeking access to oil, natural gas and other natural resources. This will require surveillance, possible search and rescue missions and activities aimed at protecting marine and environmental resources. A major strategic objective of the Coast Guard is the protection of US sovereignty and sovereign rights. To achieve this goal, the Coast Guard will need to work with international partners and work within the rules and regulations that govern this region. In 2013, Coast Guard Commandant Admiral Robert Papp – now US Arctic Ambassador – released a maritime governance document that would guide US Arctic strategy over the next ten years.

The three strategic objectives Admiral Papp articulated included:

1. Improving Awareness: there is a need for surveillance, monitoring and shared information systems for better maritime awareness. There needs to be close collaboration with all stakeholders working in this region.
2. Modernizing Governance: the Coast Guard will work with regional and global institutions to improve governance and to foster collective efforts to oversee maritime activities, protect natural resources and safeguard national interests.
3. Broadening Partnerships: to succeed, partnerships with both domestic and international partners in public and private sectors need to be developed and strengthened. The Coast Guard needs to work with the Arctic Council, the International Maritime Organization (IMO) and other relevant actors.

US Department of State

The State Department is the leading US organization in the Arctic Council and it addresses issues related to environmental protection and sustainable development. By agreement the Arctic Council does not address military security issues. The United States will assume the chair position from 2015 to 2017. The State Department supports the 2013 *National Strategy for the Arctic Region* and focuses on three priorities:

1. Protect U.S. national interests and homeland security interests.

DOI: 10.1057/9781137468253.0010

2 Promote responsible stewardship and protect the Arctic environment.
3 Foster international cooperation and strengthen regional and global institutions that deal with Arctic issues.

The State Department sees the region through a more cooperative security perspective. In that sense, they are closer to their European colleagues in terms of priorities and interests. For example, it is the State Department that will be responsible for leading the campaign to get the United States to support the UN Convention on the Law of the Sea (UNCLOS). In the current political atmosphere in the U.S. it is unlikely that the US Senate will ratify this treaty. This same senate is unlikely to support any growth within the Arctic Council that would transfer sovereignty to that institution. Thus, clearly functional tasks like search and rescue activities, conferences on scientific research and conservation agreements will be supported by the US government and the State Department is likely to take the lead.

Other US Policy Actors

If the statist argument holds, most of the U.S. policy priorities in the Arctic region and eventual policy actions will be shaped by US government agencies. In addition to three aforementioned departments, four additional departments work on Arctic issues. The Department of the Interior has responsibility for oil and natural gas resources and the infrastructure essential for accessing these resources. The Department of Commerce supports climate change research dealing with weather, oceans and coastal areas. The National Oceanic and Atmospheric Administration (NOAA) focuses on oceans and the atmosphere and will play a major role as climate change opens the Arctic oceans. Commerce, the home of NOAA, also works with oil and gas companies to explore future exploration and extraction. Commerce has a deal with Shell, Statoil USA and Conoco Phillips. The Department of Energy is involved in transforming the US energy system. The US is currently an energy-exporting state, and new resources in the Arctic will only add to US energy supplies and will help the US diversify its global supply chains and reduce its dependence on Middle East oil. Finally, the Department of Transportation is working to maintain Arctic shipping lanes and to explore how best to manage new routes as climate change opens the Northwest Passage.

DOI: 10.1057/9781137468253.0010

For implementing the 2013 National Strategy for the Arctic Region, an integrated Arctic management strategy was introduced. Heather Conley (2014) describes it as a 'holistic approach to Arctic decision-making that balances economic development, environmental protection and cultural values'. Conley believes the US is some ten years behind in articulating and implementing an integrated Arctic policy. To prepare for US chairmanship of the Arctic Council in 2015, Conley urges the US government to take the Arctic policy world more seriously and she urges the US Senate to ratify UNCLOS. Republican control of the US Senate may make that suggestion impossible to achieve.

The issue leaders in U.S. Arctic policies are all government agencies. They serve the interests of the state as well as the critical actors in US society. The liberal model does not hold but as climate change opens the Arctic, more NGOs and both energy and transportation corporations may take the lead. A truly tri-sector policy process may develop involving public, private and not-for-profit NGOs, research institutes and foundations. In other words, the US policy process could begin to mirror the more open liberal process found in the Nordic states and Canada.

Conclusion

The issue leaders and issue clusters that formulate and implement Arctic policy in the United States are state or public actors. Krasner's statist model clearly applies here in that the dominant policies reflect the interests of state agencies and organizations. National debates about the Arctic region have yet to develop and energy corporations seem to have little opposition outside of Alaska. Recently, indigenous communities and environmental organizations have stalled some of the oil exploration in this region.

Citizens in the United States are generally not interested in foreign policy and many US citizens and their elected representatives do not believe the scientific evidence that climate change is opening the Arctic region. Others are concerned with the security issues raised by the opening of the Arctic and the activism of Russia in the region. Russian rhetoric and actions and Chinese interest in the region have raised concerns related to national security, economic interests and sovereignty. In an effort to rally domestic political support, political leaders are not beyond

DOI: 10.1057/9781137468253.0010

using the remilitarization of the Arctic by potential enemies to issues in their campaigns for re-election or for support of their policy positions.

The Arctic Council has established a cooperative policy environment open to a variety of state and non-state actors. The United States has worked to make this institution work effectively in areas of low politics or issues not directly related to national security. With three great powers – the United States, Russia and China – involved in the region, we may soon experience a clash of security cultures from cooperative security to a strategy of primacy or great power competition. The domestic political climate within the US suggests that the disdain for global and regional treaties and the reluctance to surrender or share sovereignty is likely to increase. Unlike, Heininen argues in the introduction of this volume, it is also entirely possible, that this region will be remilitarized, and the achieved high political stability and all of the efforts aimed at building a cooperative culture by the members of the Arctic Council will be slowed, if not completely stopped. Once again, the Machiavellians may win over the Grotian *gidslands*.

References

Bird, Kenneth J., Charpentier, Ronald, R. Gautier, Donald L., Houseknecht, David W., Klett, Timothy R., Pitman, Janet K., et al. (2008) Circum-Arctic Resource Appraisal; estimates of of undiscovered oil and gas north of the Arctic circle: U.S, Geological Survey Fact Sheet 2008–3049, 4p (http://pubs.usgs.gov/fs/2008/3049/).

Burek, K. A., Gulland, F. M., & O'Hara, T. M. (2008) 'Effects of Climate Change on Arctic Marine Mammal Health', *Ecological Applications,* 18(2): S126–S134. http://www.esajournals.org/doi/abs/10.1890/06-0553.1.

Conley, H. (2013) *The New Foreign Policy Frontier. U.S. Interests and Actors in the Arctic.* (Washington, DC: CSIS).

Conley, H. (January 2014) 'Washington's Arctic "To Do" List'. http:// csis.org/print/48290.

Corgan, M.T. (2014) 'The USA in the Arctic: Superpower or Spectator?', in L. Heininen (ed.), *Security and Sovereignty in the North Atlantic* (Basingstoke: Palgrave Macmillan, Palgrave Pivot).

Critchley, W.H. (1987) 'The Arctic', *International Journal,* 42(4), 769–788.

DOI: 10.1057/9781137468253.0010

Engelhaupt, E. (2009) 'Climate Change and the Arctic Diet', *Environmental Health Perspectives,* 117(7), A292.
Fossum, J.E. (2006) 'Guest Editor's Introduction', *International Journal,* 61(4), 783–791.
Heininen, L. (2011) *Arctic Strategies and Policies – Inventory and Comparative Study* (Akureyri: The Northern Research Forum and the University of Lapland).
Hersman, R.K.C. (2000) *Friends and Foes. How Congress and the President Really Make Foreign Policy* (Washington, DC: Brookings Institute Press).
Hoefer, R. (1998) 'The Effect of Institutional Arrangements on Political Advocacy by Swedish and American Nonprofits', Presentacion oral en la Tercera Conferencia Internationacional de la International Society for the Third Sector Research, Ginebra, Suiza.
Johannessen, O.M., Shalina, E. V., and Miles, M. W. (1999) 'Satellite Evidence for an Arctic Sea Ice Cover Transformation', *Science,* 286(5446), 1937–1939. Print.
Johannessen, O.M., Bengtsson, L., Miles, M. W., Kuzmina, S. I., Semenov, V. A., Alekseev, G. V. and Cattle, H. P. (2004) 'Arctic Climate Change: Observed and Modeled Temperature and Sea-Ice Variability', *Tellus A,* 56(4), 328–341. Print.
Körper, J. (2012) 'The Effects of Aggressive Mitigation on Steric Sea Level Rise and Sea Ice Changes', *Climate Dynamics,* 40(3–4), 531–550. Print.
Krasner, S. (1978) *Defending the National Interest. Raw Materials Investments and U.S. Foreign Policy* (Princeton, NJ: Princeton University Press).
Ministry of Foreign Affairs of Norway (2006). "The Norwegian Government`s High North Strategy."
Mitchell, J. (April 2014) 'Russia's Territorial Ambition and Increased Military Presence in the Arctic', *Foreign Policy Journal*. http: www.foreign policyjournal.com/201404/23/
Norwegian Ministry of Foreign Affairs (2009) *The High North. Challenges and Opportunities.* http://www.regjeringen.no/en/dep/ud/campaign/the-high-north.html.
O' Rourke, R. (2014) *Changes in the Arctic: Background and Issues for Congress* (Washington, D.C: Congressional Research Service). http://fas.org/sgp/crs/misc/R41153.pdf.
Overland, J. (2011) 'Potential Arctic Change Through Climate Amplification Processes', *Oceanography,* 24(3), 176–185. Print.

DOI: 10.1057/9781137468253.0010

Post, E., Forchhammer, M. C., Bret-Harte, M. S., Callaghan, T. V., Christensen, T. R., Elberling, B., & Aastrup, P. (2009) 'Ecological Dynamics across the Arctic Associated with Recent Climate Change', *Science,* 325(5946), 1355–1358. Print.

Proshutinsky, A., Ashik, I. M., Dvorkin, E. N., Häkkinen, S., Krishfield, R. A., and Peltier, W. R. (2004) 'Secular Sea Level Change in the Russian Sector of the Arctic Ocean', *Journal of Geophysical Research,* 109(C3), 1–19. Print.

The Arctic. Special Report (June 16, 2012) *The Economist,* 3–16. Print.

United States, Coast Guard (May 2013) *Arctic Strategy* (Washington, DC). http://www.uscg.mil/seniorleadership/DOCS/CG_Arctic_Strategy.pdf.

United States, Department of Defense (May 2011) *Report to Congress on Arctic Operations and the Northwest Passage* (Washington, DC). http://www.defense.gov/pubs/pdfs/tab_a_arctic_report_public.pdf.

United States, Department of Defense (January 2012) *Sustaining U.S. Global Leadership: Priorities for the 21st Century* (Washington, DC). http://www.defense.gov/news/defense_strategic_guidance.pdf

United States, Department of the Navy (October 2009) *Navy Arctic Roadmap.* (Washington, DC). http://www.wired.com/images_blogs/dangerroom/2009/11/us-navy-arctic-roadmap-nov-2009.pdf.

United States, The White House (May 2013) *National Strategy for the Arctic Region* (Washington, DC). http://www.whitehouse.gov/sites/default/files/docs/nat_arctic_strategy.pdf.

US Geological Survey (July 2008) USGS Arctic Oil and Gas Report: Estimates of Undiscovered Oil and Gas North of the Arctic Circle, http://www.eurasiareview.com

Worth, J. (July–August 2009) 'Slick Operators', *New Internationalist*, 10–12.

Young, O.R. (1992) *Arctic Politics: Conflict and Cooperation in the Circumpolar North* (Hanover, NH: Dartmouth College Press).

Zysk, K. (2010) 'Russia's Arctic Strategy: Ambitions and constraints', *Joint Force Quarterly,* 57, 103.

DOI: 10.1057/9781137468253.0010

6

Ripple Effects: Devolution, Development and State Sovereignty in the Canadian North

Heather N. Nicol

Abstract: *This chapter explores the way in which Canada's current territorial development policies and initiatives reinforce current and substantive interests of Arctic security and sovereignty promoted by the Canadian government. In particular, it examines the emerging political, economic and spatial dynamic resulting from recent rounds of state-centered interest and agency directed toward 'protecting' Arctic borders and securing 'Canadian' sovereign territory. This security and sovereignty mandate, as it has been constructed through various Canadian federal government departments, appears to now inform the workings of a number of state agencies and institutions, and to have created a series of cascading impacts throughout the Canadian North, ultimately influencing regional and local boundaries of self-governance and comanagement, compromising a more general comprehensive security, if not soft security practices.*

Keywords: Canadian North; comprehensive security; devolution; neoliberalism; regional development; state sovereignty

Heininen, Lassi, ed. *Future Security of the Global Arctic: State Policy, Economic Security and Climate*. Basingstoke: Palgrave Macmillan, 2016. DOI: 10.1057/9781137468253.0011.

Introduction

Security is an issue of general importance for all of the Arctic states. What constitutes a security concern today, however, is more about economic survival, environmental health and availability of food, than simply deterring or rebuffing military attack from foreign powers. For example, American national security imperatives in the Arctic (see Lamy this volume) include a desire to 'Develop partnerships with Alaska, the Arctic states, other international partners and key private sector actors to develop critical resources and manage economic activities in this shared resource region'. Similarly, as Tonami (forthcoming) reminds us in her article, Arctic Council observer states like China and Japan find the economic aspects of the Arctic, and the economic implications of joining the Arctic Council, far more interesting and compelling than political ones.

Canada's position is no exception to this more general trend toward tempering a broad traditional security mandate with economic considerations. True, the Canadian government under Stephen Harper has continued to publicly promote a very popularized, militaristic perspective concerning the Canadian Arctic. Its approach is focused on getting ships and boots on the ground, and on enhancing surveillance and monitoring capacity. This state-centered emphasis is clearly in line with the responses to common issues that face all Arctic states: climate change, energy security issues, maritime boundary issues, new shipping routes and new environmental challenges. But part of it is rooted in very specific Canadian security issues that are unique to the country itself. It is a result of the turn of events that positions Canadian partisan politics as heavily invested in the Arctic.

For several years now, for example, fiscal austerity imperatives in the Canadian government have encouraged a new approach to substantive national issues. Security is one of these. The truth is that the Arctic is a national territory that is too large to be secured by conventional military means, and in fact, the cost of such surveillance and military patrol is increasingly prohibitive. Sovereignty and security are thus to be delivered through other means. While critics have suggested that Canada's focus on sovereignty has a decidedly military tone, there is another piece to this security agenda that looks to economic development as the venue for delivering future security across the North. The future of security has thus been broadened to include economic

DOI: 10.1057/9781137468253.0011

development within both the agenda of Canada's Arctic Chairmanship and the mandate of Canada's armed forced. The latter has promised to deliver security through a concerted and comprehensive effort, which encourages multiple federal government departments to coordinate and support sovereignty through combined and diverse efforts. Economic development for local community viability is one of these. So while media attention focuses upon military exercises and maritime events, however, this is not the whole story. Other departments and agencies are also focused upon bringing a new degree of interest and control over and regulation of Northern resources, agents and developments. This shift of the gaze northward seems to reflect a consensus on the need for the state to be a key institution for managing new Arctic spaces and economies, and the delivery of security itself is contingent upon local as well as international stability.

The new approach to sovereignty in the North relies upon a suite of federal economic development policies, strategies, programs, projects and agencies that target the North, and that build upon and expand narrower military sovereignty platform, for example, the Northern Strategy (in 2009), Canada's Arctic Foreign Policy Statement (in 2010) and the creation of the Canadian Northern Economic Development Agency (CanNor). This framework of initiatives seems to reinforce the fact that the Canadian state intends to retain its important role in defining and protecting territory, populations and economic resources, and that these are all cross-cutting themes in the delivery of security and sovereignty. The presence of the Canadian state in the North is, therefore, not just about sovereignty. It is also concerned with greasing the wheels of both domestic and international investment in resource industries, as well as facilitating said economic development by smoothing the 'braking' wrinkles out of the regulatory process. The desire of the Canadian state to be present in the North has informed much of the current way in which the political process now approaches the problem of economic development, just as much as it informs the way in which it exerts 'sovereignty' over its Arctic lands and waters, and it is this link that we explore further in this chapter. The problem is raised, however, that getting one element of this relationship 'wrong' can create unintended effects – and a paradoxical diminishment of human security itself, if comprehensive security is seen to be the final goal of security efforts of the state.

But even the latter, as the introduction of this volume suggests, is essentially a 'new-old' security concept, in that it builds upon the

DOI: 10.1057/9781137468253.0011

platform of energy security, as well as industrial minerals more generally. Much like during the war years in the 20th century, its security rationale is to privilege the Arctic and its resources as a storehouse for strategic resources. Today the development of Arctic oil in the Canadian context, for example, does rely upon the discursive that sees energy as 'an integral part of foreign and national security-policies of states' as well as, and that which positions the need for vigilance, action and the development of state capacity to act to offset the danger or risk of (offshore) oil spills. It is true, as we have seen, that 'The Federal Government of Canada has stated a need to adopt a 'hard power', that is, to increase its military presence to defend its sovereignty in its maritime Arctic, due to rapid and unavoidable climate change' (see Introduction). In this sense, what follows is a discussion of the way in which key elements of this 'new-old' security relationship have ripple effects upon the conceptualization of how such security is to be governed, what are the important boundaries to protect and what are not, and how security decisions will be made at the local level.

Economic development and nation building

Recognition of the importance of regional economic development, both in terms of its political utility in the Canadian North and for delivering food security and meeting other basic human security needs, and its nation-building properties more generally, is not new. It is rooted in a distinctive Canadian historiography of political economy, the staples economy and regionalization (Bone, 2012; Clement, 1966; Mackintosh, 1923; Nicol, 2013; Wallace, 2002; Watkins, 1963). Historians have long explained Canada's story as one of regional multiplier effects derived from foundational resource extraction economies, supplemented by a strong federalism that (unequally) redistributed the proceeds of the resource economy to a series of distinctive regions (Wallace, 2002; McCann and Gunn, 1998). But this understanding also draws upon an institutional understanding of development in its appreciation of the way in which institutional forms of economic organizations are linked, and the way in which markets themselves are socially and politically constituted (Hayter and Patchell, 2011). Conventional security plays little role in this conceptualization, although it is a linked concept more broadly speaking. In this sense although we acknowledge the staples

DOI: 10.1057/9781137468253.0011

thesis and adopt the institutional approach as a starting point for this chapter, we are also concerned with digging deeper. How does the current Northern 'economic development' mandate of the Canadian government also support a federal sovereignty and security agenda embedded within broader neoliberal geopolitical discourses? What does this mean for the structure of Arctic territorial boundaries at all scales? How do both objectives (sovereignty and development) join two seemingly distinct strategies or pillars) in one common goal (or 'Northern' strategy)?

Building a Northern strategy for the Canadian North

Any historical analysis of the Canadian territorial North will reveal that the federal government of Canada has ensured that region's development model has been, until recently, emblematic of a welfare state reinforced by revenue transfers that assert federal jurisdiction and responsibility over highly indigenous spaces on an economic frontier. The return on this investment has been a series of large resource and extractive industrial sites. Colonial, paternalistic and even racist governance of the North was historically dedicated to maintaining the region's status as an exotic, marginal resource frontier. The use of state institutions such as the Canadian military, the Royal Canadian Mounted Police (RCMP) and a host of federal agencies regulating education, resource use and indeed socioeconomic programming was widespread. Implicated as a strategic space during the Cold War, at the end of this era the North languished as a place of little interest to Southerners. It was only in the late 20th and early 21st centuries that a new interest in Northern environments and peoples was triggered, following a new international cooperation and fears concerning the outcome of climate change in the region.

While the pervious succession of liberal governments had developed an interest in the Arctic, the profile of this region was given new life when, in 2006, shortly after the election of a conservative government, a clear connection with the Arctic was made in the Throne Speech and the new government's agenda. There was to be a policy and programmatic link made between economic and sovereignty interests in the North. Then Defense Minister Gordon O'Connor argued, for example, that 'the basic problem in these [Arctic maritime boundary] disputes is a matter of resources – who owns which resources. For instance,

DOI: 10.1057/9781137468253.0011

let's take the Beaufort Sea. We may declare that a boundary goes to the Beaufort Sea in one position and the Americans in another. If a country wanted to drill for oil in the Beaufort Sea, and there's a lot of oil and gas there, they, at the moment, if they're in this disputed area, wouldn't know who to approach, whether it's the United States or Canada to get drilling rights. So these sort of things have to get resolved'.

By this time, new rounds of interest in large-scale oil and gas and industrial mining had developed in the Canadian North. This, of course, meant that traditional military and economic security could be positioned as co-constitutive. Climate change meant competition for new spaces, and competition meant the need for state security apparatus to be more prominent and to better represent the territorial interests of the Canadian state. On the contrary, those invested in research concerning these frameworks for development were hopeful that a new era had been reached, one of a more human-centered security agenda, where indigenous comanagement, sustainable development and corporate social responsibility would combine to deliver much needed jobs and levels of economic development (Mason, Anderson and Dana, 2008, p. 195). This was certainly the message given by the new Canadian Chair of the Arctic Council in Kiruna, in the spring of 2013.

Indeed, this new arrow for the bow of Canada's security agenda gained traction in the summer of 2009, when Canada's annual military exercises, called Operation Nanook, unfolded in the Canadian North. At this time, Canada's national newspaper, the *Globe and Mail*, carried a series of articles quite critical of government spending on military operations whose only purpose was to demonstrate Canada's 'commitment' to its Arctic claims, when clearly there were more pressing social, educational and economic development needs in the region. Commentators argued for more awareness and social programming. At the same time, however, there remained those interested in the geopolitical ramifications of climate change, that is, those concerned with the opening of previously frozen waterways and new interest in more accessible seabed resources; pushed for a greater awareness of challenges to national security and a stronger defense mandate. They argued that there was a global, resource-oriented corporate investment group, looking for easier access to Canada's Northern resources (Borgerson, 2008; Huebert, 2010). It was not long before that consideration of both positions created a sovereignty-development nexus.

DOI: 10.1057/9781137468253.0011

Sovereignty-development nexus

Indeed, the 'sorts of things' that then Defense Minister O'Conner had referenced in his litany of international challenges to Canada's Arctic, particularly in the context of the maritime claims, lead to heightened interest in understanding the relationship between economic development and security. Following up on this new interest, by 2007, the government of Canada had put in motion what it called its Northern Strategy (Canada, http://www.northernstrategy. gc.ca/cns/au-eng.asp), whose goal was to combine four interests of a Canadian state – sovereignty; environmental heritage; social and economic development; and devolving Northern governance – in a linked strategic plan.

This Northern Strategy, launched in 2007, followed the goals articulated earlier by the Northern Dimension of Canada's Foreign Policy fairly closely. The latter was a highly consultative document that was produced by an earlier government, and that stressed the need to see the North as a region with its own foreign policy and international mandates. The Northern Strategy was thus to reflect 'the Government's significant activities and signature investments in the North' (Canada, http://www.northernstrategy. gc.ca/cns/au-eng.asp) and would be reinforced by Canada's Arctic foreign policy. No less than a national strategy, in terms of the internal logic of this strategy, it argued that promoting the North was promoting Canada, and vice versa. Each of the four pillars formed a piece of what the documents define as a coherent whole, and in doing so created a vision of the steps necessary to achieve this outcome of leadership, prosperity, territorial security and socioeconomic equanimity. Following from this document, a new series of strategies emerged. In 2010, for example, the Standing Committee on Arctic Defense released its statement on Canada's Arctic Sovereignty. The Committee stated that '[e]xercising Arctic sovereignty is a pillar of the Northern Strategy and the number one priority set out in the Statement on Canada's Arctic foreign policy'. (Canada, Standing Committee on Arctic Defence, 2010)

Strategy and economy: a story of failure?

One of the most important and central results of the Northern Strategy, however, was not so much a pitching of security as a military threat, but rather its vision of socioeconomic development as a substrategy of

DOI: 10.1057/9781137468253.0011

sovereignty and security. Rather than deliver on its promise of ships, planes, ports and fighting infrastructure, security was rebranded. Such thinking paralleled the way in which security was increasingly being understood in Canada, from the more realist paradigms offered by international relations to the more culturally complex paradigms found in the post-Afghanistan era in Canadian defense strategies (http://www.forces.gc.ca/en/about/defence-renewal-plan.page). But another important piece of the story relates to the theoretical significance of the discussion. That is to say to the way in which collaborative securitization strategies and approaches in general are understood to mobilize a 'whole of government' approach (Christensen and Laegreid, 2007) to policymaking and implementation. This perspective, when examined from the point of view of its transformative effect upon definition of military security, can incorporate, rather than isolate, military mandates for protecting security and sovereignty within a broader understanding of the challenges now facing the North and its resident populations, beyond those defined through a normative geopolitical lens.

Another reason why, of course, the state is one of the largest landowners in Northern Canada responsible for the management of Crown land and resources north of 60° latitude. If both issues are considered, it should not be seen as remarkable at all that a Canadian geoeconomic subtext supplements its geopolitical ambitions. As a government master plan has unfolded, guided by Canada's Northern Strategy, it considered defense, security and sovereignty mandates comprehensively. Cornerstone pieces of this agenda also include the Economic Action Plan, and in the 2010 the Northern Jobs and Growth Act. But equally important, it also created a new institution to further these linked goals – called the Northern Economic Development Agency (CanNor). It is an agency specifically responsible for promoting economic development in the North. Its oversight is provided by the same individuals responsible for Environmental Assessment and the Arctic Council Chairmanship. The four main areas of interest to CanNor focus upon 'business, community, resource, skills development'. These four pillars hold together an impressive suite of projects, programs, strategies, services and projects focused upon economic development, education and entrepreneurship in Canada's North. Among CanNor's programs and services are many that focus upon creating the preconditions for the development of infrastructure, resources and labor. This means attention to the landscape of investment as well as to the landscape of

DOI: 10.1057/9781137468253.0011

community human and natural resources. (CanNor, http://www.cannor.gc.ca/eng/1381320711612/1381320727939).

Although these represent relatively new programs, it is clear that the development model that informs CanNor is inherently neoliberal, relying upon a suite of private and public partnerships, strategic investment, niche education and 'project'-oriented development. The emphasis upon mining, 'projects' investment, infrastructure and strategic investment signals that primary resource activity is considered to be the conduit for economic revitalization, in which case the target corporations are not just domestic, but also international, transnational or global. At the same time there seem to be several areas of the CanNor agenda that could have a positive impact upon local community development. Support for skills training initiatives, for example, is meant to create a regional workforce able to meet the needs of industry, in a regional context where locals experience low levels of education and job preparedness, while outsiders are bought in in order to comprise a relatively skilled workforce. Programs have also been developed to create communities that are 'shovel ready' for large megaprojects. Infrastructure improvement, adult basic education and a host of other initiatives seem to represent innovative approaches. True the agency does not create jobs or invest in development projects, but it does create the platform for such development by organizing a programmatic suite that can be called 'appropriate initiatives'.

But if one important part of the agency's mandate is to create the conditions in which jobs and employment for Northerners and Northern communities can materialize, another is to promote economic development through the creation of an improved climate in which to do business. CanNor reports, for example, that it has $90 million over five years for 'strengthening the key sectors of the territorial economies, economic diversification and encouraging Northerners participation in the economy' (ibid.). At the same time it has invested only about $23 million between 2009 and 2011 to support projects facilitating economic development for Aboriginal peoples. Indeed, government investment linked to the Northern Strategy document clearly indicate that while there is both an emphasis upon communities as well as corporate and private sector interests, project funding in support of large-scale corporate-friendly projects clearly dominates government spending for the North.

On one level, the goals of CanNor seem to be admirable – increasing the opportunity for economic development for Northerners. The

DOI: 10.1057/9781137468253.0011

question is, however, if the North is such a good context for resource development, why has regional growth in all areas not followed from the decades of resource extraction megaprojects? What does energy security mean, or protection and access to strategic and industrial resources amount to as a more comprehensive security platform? The answer is relatively little so far. Part of the problem is 'boom and bust'. Indeed, today, as in the past, Canada's Northern development is heavily financed by foreign investment and focused on resource development (Bone, 2012), which has not yet succeeded in breaking the boom and bust cycle. Rather, many CanNor programs seek to increase the level of investment and employment in extractive industries with less attention given to global swings and their cumulative impacts. The agency's interest clearly lies in the area of creating an amenable climate for corporate investment, and to work with Northern communities to make them 'shovel-ready' for large-scale investment projects. While creating frameworks for appropriate education and skills training is also important, it has been the goal of simplifying and streamlining regulatory processes involving the issue of permits, approvals and licenses that has absorbed much of CanNor's attention, this for the purpose of removing obstacles to investment in resource development industries from outside the region. In fact, this is so much the case that we should not be surprised Canada's Auditor general rebuked CanNor in 2014 for its lack of accountability both to its mandate to increase Northern employment and its financial and procedural practices. This so-called untangling of the regulatory process directly impacts how and where decisions are made concerning new development projects. It is achieved less by investment in education and more by streamlining the regulatory process and 'removing barriers to private investment, enhancing environmental stewardship' than in 'investing in programs to support economic growth and provide opportunities for Northerners' (ibid.).

In this sense it is important to understand how CanNor's response can be understood in relation to an existing consensus about development, energy and resource, as well as so-called comprehensive security. It seems, on the surface, to be responsive. For example, in 2007 the Senate Committee on Aboriginal Affairs argued that many Aboriginal peoples in Canada, 'by virtue of the Indian Act, are impeded from developing their economies and attracting investment…market forces do not operate properly on Indian lands, thus substantially raising the costs of doing business on reserve' (2007, p. 15). The Senate Committee called for

DOI: 10.1057/9781137468253.0011

'long-term, meaningful investments in economic development programming as a complement to reforms and measures that would attract commercial investment and development opportunities to Indian lands' in ways that support an integrated and coordinated approach' (Senate Committee on Aboriginal Affairs, 2007, p. 21). Overall, the Committee identified a need for programming directed toward 'the conditions for development. It should take a coordinated and integrated approach across sectors, connecting to education, skills development and training, infrastructure development, institutional and governance capacity, capital development and access to lands and resources' (ibid.), rather than 'slotting' locals into a plan to create a niche economy designed to accrue resource wealth elsewhere.

How does CanNor's approach fit this model? In its focus on development it has chosen to more generally support large industry needs. Its rationale may be to assist Northern communities in accessing jobs and investment capital, but, in CanNor's case, the major focus of development spending on initiatives seems to misunderstand and even perpetuate the problem that the Senate Committee on Aboriginal Affairs identified. Moreover, it tends to support the rationale for streamlining regulation that has come to be the development mantra of the current Canadian government more generally, and in many cases this means the abandonment of a commitment to the special contexts of permitting and comanagement that had developed at the local level in many communities. The result is that while there has been in some cases a substantive increase in territorial powers over resource investment, there has also been a substantive decrease in the ability of local communities and boards to weigh in on permitting and development issues. So, the landscape is changing. The regulatory agenda for development is being reconstituted to focus more generally upon large-scale industrial investment concerns rather than local self-determination.

The problem is, however, that whether or not there will be a measurable impact upon economic development and human security more generally defined, from these assemblages of development initiatives, remains to be seen. As noted, the 2014 Auditor General Report found such significant problems in CanNor's management of funds and programs that this resulted in the resignation of the agency's director in May 2014. The Auditor General noted, specifically, that this agency had not measured and reported on whether its programs were achieving their stated goals. In many areas of programming, assessment and

DOI: 10.1057/9781137468253.0011

evaluation were poorly managed: for example, for what was called the Community Economic Development Program, the Auditor General argued that 'CanNor did an adequate job in only three of 11 projects' (see for a summary of the report's comments: Nunatsiaq Online, 2014, http://www.nunatsiaqonline.ca/stories/article/65674auditor_general_cannor_struggles_with_staffing_administration_office_s/).

Devolving power?

Building upon the lackluster record of CanNor are other current 'development' initiatives. Promoting a more general human security, an important corollary of traditional security may be inherently doomed to failure precisely because its agenda does not facilitate local decision making and local review. Take, for example, the way in which local land and water boards are now being sacrificed in the Northwest Territories, at the same time that the devolution of power to the territorial government increases (see Coates and Poelzer, 2014; Sibbeston, nd, http://sen.parl.gc.ca/nsibbeston/2014.htm).

In 2014, the Northwest Territories have seen significant gains associated with devolution agreements recently concluded with the federal government. For Coates and Poelzer (2014, http://www.macdonaldlaurier.ca/mli-study-completing-the-devolution-revolution-in-canadas-north/), who have recently explored the success of devolution and self-governance in the North, there are three fundamental issues that drive devolution, and these also create a bridge between the interests of broader regional relations and sovereignty claims, and more local governance. These are, on the one hand, external drivers like the discursive and political agency surrounding climate change 'which [have] the potential to open Arctic waters and create global demand for energy, mineral, and biological resources located in the North' (ibid.). These evoke traditional security responses. A second driver is also compelling, this being 'recognition of the legal and political rights of Aboriginal peoples in Canada' whereby 'the federal government is no longer the only or the most important level of government to the First Nations, Métis, Inuit, and non-Aboriginal peoples in the Canadian North' (ibid.). The third driver, is, however, economic, and derives from the fact that 'natural resources that have been identified in the Canadian North' (ibid.).

DOI: 10.1057/9781137468253.0011

For both Coates and Poelzer it is the benign effects of regulation that are important: 'Good regulatory processes are essential for industry to thrive and the environment to be properly stewarded. Appropriate governance changes will also mean that the territories are better able to develop and capture their own sources of revenues, lessening fiscal dependence on the rest of Canada' (ibid.).

But with devolution and its promise of greater economic and human security came changes to local land and water boards, whose roles were important in bringing a local and public perspective to the regulation of uses of land and water in the Mackenzie Valley, as well as to the land use planning process (see the Mackenzie valley resource management act, https://www.aadnc-aandc.gc.ca/eng/1100100023530/1100100023532#chp2). These land and water boards were originally created to empower Aboriginal groups and to give them decision-making power over economic development, some actually created by clauses embedded in land claims agreements. But, as part of promoting regional devolution instruments contained in Bill C-15, the federal government decided to dismantle many of its key indigenous comanagement boards in the Mackenzie valley and to restructure the territory of established indigenous comanagement agency (CBC, 2013). It is this process that it dubs regulatory streamlining (see McCrank, 2008).

Connecting the dots: neoliberalism as a development discourse

The rationale for this development is clearly embedded in the framework of economic development that now informs Northern policymaking and governance. It reflects not just 'globalization', but a specific type of globalization discourse – neoliberalism. Neoliberalism holds that markets will determine resource use and allocation: 'Because markets are supposed to work through the dynamics of individual decision making in competitive settings, neoliberal proponents suggest that political involvement in economic activity (e.g., regulation of corporations, support for regional industries or particular sectors, or social protection for the poor) is just interference in an otherwise natural process' (Mansfield, 2004, p. 566). So, neoliberalism, as a discourse informing Northern development, means a discourse that promotes little to no interference by government, which decouples the 'security' and 'comanagement' emphasis from

DOI: 10.1057/9781137468253.0011

human development and human security narratives, and which operates in ways that do not accommodate existing permitting of access to land and/or rights to resource use. McCrank (2008), who in his capacity as a federal consultant, recommended these changes, suggested that the real vulnerability of the North was overburdening local decision makers, rather than overburdening ecosystems themselves.

What does it mean to be marginalized in the larger process of human security capacity-building? It means a more contentious local political landscape. The Tlicho and the Gwich'in, in particular, have raised concerns, and the Sahtu are poised to sue the federal government over the issue, but even this has had little traction. Speaking to the Canadian Senate, former Northwest Territories (NWT) premier senator Sibbeston noted his disappointment with the way in which NWT devolution had affected local decision making: 'The government argues that they had to change the regulatory system in order to devolve a modern, efficient and effective regulatory system to the government of the Northwest Territories. Yet, in our pre-study we heard witnesses say that quite the opposite is happening' (Sibbeston, nd, http://sen.parl.gc.ca/nsibbeston/2014.htm).

These issues intersect with another element of circumpolar security whose growing implications cannot be ignored. This is the impact of growing environmental change and even degradation of environment and its resources if climate change proceeds apace with relatively regulated industrial development. As Lamy (this volume) reminds us, routes to the Northwest Passage (NWP) may become commercially feasible and if so, the Arctic will see a considerable increase in shipping traffic. Any increase in traffic might alter and threaten marine resources as well as the communities that rely upon them. This is especially true for places where petroleum and shipping activities emit a broad mix of pollutants.

The type of devolution and the deregulation embodied by the current Canadian government seems to suggest that despite its attempt to create meaningful changes to the conditions of development in the North, the state still supports a general approach to Northern economic development that focuses on corporate 'big business'. The effects may or may not be recognized and understood through local review processes, but increasingly the trend is toward less regulation in the face of heightened threat. As Campbell notes, while local participants debate over whether any speed-up of the review and permitting process for development will accrue as a result of the restructuring, some large transnational corporations, like Imperial Oil, are pleased: 'Imperial Oil Ltd., the lead proponent

DOI: 10.1057/9781137468253.0011

of the Mackenzie Gas Project, applauds the report. Clearly, Imperial Oil is not fond of the current system, having watched the review of the $16.2-billion natural gas pipeline project take two years longer than expected' (Campbell, 2008).

So where does the need for regulatory simplification leave us? Arguably with development models that heighten environmental insecurity and stress corporate investment in large resource extraction processes, and which also stress the importance of private sector investment. While global corporate capitalism is a rather forceful machine that is unlikely to change, with the strong support of federal agencies, local interests could help to negotiate softer landings for local benefit. But in the absence of this local capacity, better contextualization of investment is unlikely. Indeed, in the context of substantive changes to territorial powers, and in the context of the changes to land and water board powers, some authorities have argued that participation in development issues has become more centralized than ever before.

One border: inside and out?

This chapter suggests that CanNor's response to Canada's Northern development, while born of more general concerns about changing the conditions of economic development in the North, is still very embedded in a larger sovereignty and security discourse and mandate with strong ambitions to attract global investment by creating the proper conditions for large-scale resource extraction. This demands big security, and arguably sets the stage for the demise of a more nuanced localized and appropriate humane security agenda. This is not due to dereliction of duty by CanNor, but by adherence to its prescribed mandate.

Bear in mind that this chapter is not an attempt to systematically assess the merits of neoliberal development policy in the North. It is sufficient to note that in creating such a framework, an inherent larger contradiction develops that essentially links the pressure for territorial adjustments at both international and subnationals scales, that is to say in the Arctic Ocean and within territorial and sublocal governance structures. This is because this development model encounters the problem that increasingly, as land claims are settled in the North, devolution of power, particularly in the area of resource permitting, was designed to further the interests of Aboriginal governments (Bankes, 2008, p. 117).

DOI: 10.1057/9781137468253.0011

Devolution was to provide strength to new types of indigenous governance over land and resources, a direct result of negotiations carved out through the land claims process and local governance structures, which have been negotiated over approximately half a century (Fenge, 2007–2008; White, 2008; Campbell, Fenge and Hanson, 2011). But the catch is now that if devolution is to encourage economic development in the NWT, at least using current resource-development models adopted by territorial and federal agencies, local decision-making capacity is now considered to be too onerous: local obligations and arrangements standing in the way of 'good regulatory processes' from the point of view of outside investors (McCrank, 2008). Devolution, as it is currently envisioned for the NWT, means clawbacks in the area of indigenous governance and comanagement and restructuring of local governance boundaries (CBC, 2013).

So we return to the idea that the same discourse delivers the justification for defending existing international boundaries in the Arctic Ocean by constructing them as geoeconomic imperatives, that is to say that neoliberal geopolitical narratives concerning external boundaries of the Canadian state also create the rationale for the geoeconomic discourses and processes that demand a different nature of control over resource decision making in Aboriginal territories. As such there are essentially two scales at which boundary policy works in the North, and these cannot be teased apart using current development models.

Concern with rectifying the landscape for investment includes not just the 'sorting' of external borders, but the 'sorting' of internal borders, too. In attempting to promote economic development for Northerners, the paradox is that the Canadian state has focused upon creating the very context by which the economic development of target communities will be compromised, linking local and external boundaries within the same 'continuum' (see Newman, 2005). This change at the community level is a specific result of the way in which borders in the Canadian North have been imagined; they are the opposite side of the coin, so to speak, because they provide the economic rationality for geoeconomic and geopolitical mapping of the Arctic Ocean, the rippling effects of the suite of premises about the way in which the Arctic constitutes what others have called a neoliberal development context (Dittmer et al., 2011). This means that at all levels, an increasingly global Arctic is an increasingly territorialized Arctic – the internal boundaries no less important or compelling than the definition of maritime jurisdictions.

DOI: 10.1057/9781137468253.0011

To conclude – mixed blessings?

In terms of the future of Arctic security relationships, the jury is out. At the end of the day, economic development initiatives too become security issues and not just security responses, as they have been made to seem through current political discussion in the Arctic Council, whereby the prosperity of Northerners is positioned as a solution to the comprehensive food and human security threat. For Finger (this volume), however, as resources become increasingly accessible the Arctic will become a theater of economic, and industrial as well as geopolitical interests: 'When exploited, burnt and used up, these resources will inevitably accelerate global change'. What does this mean for the future of security in a region in which economic development is now becoming a new model for delivering security? Canada's insistence that the Arctic Council develop an Arctic Economic Council, under its chairmanship, has led to a more general dialogue in that international forum. There is a general recognition that 'Arctic economic endeavors are integral to sustainable development for peoples and communities in the region', one that reflects a 'desire[d] to further enhance the work of the Arctic Council to promote dynamic and sustainable Arctic economies and best practices, and decide[d] to establish a Task Force to facilitate the creation of a circumpolar business forum.'[1]

Does this mean that security will be redefined in the near future? Or will more emphasis be laid upon the comprehensive than 'new-old' security paradigms associated with previous rounds of energy and strategic mineral development, leading to what Finger in his chapter (this volume) calls the 'Arctic paradox'? Eventually, perhaps, but given the multitude of ways security has been understood in the North, this particular version may remain exclusively a Canadian security perspective for some years to come. Certainly this will be the case if a more powerful framework for motivating Canadian regional development does not emerge. While lip service is paid to economic security in truth this concept remains little more than a rhetorical tool with so far limited benefit for northerners' 'security'. Perhaps this is a mixed blessing.

Note

1 The latter, a Task Force to Facilitate the Circumpolar Business Forum (TFCBF), is cochaired by Canada, Finland, Iceland and Russia and first met in

DOI: 10.1057/9781137468253.0011

May 2013 (see http://www.arctic-council.org/index.php/en/arctic-economic-council) and promises to construct some type of development agenda.

References

Altamirano-Jiminez, I. (2004) 'North American First Peoples: Slipping Up Into Market Citizenship?', *Citizenship Studies*, 8(4), 349–365.

Alternatives North (2008) '*A Response to the "Road to Improvement" Report by Neil McCrank on Regulatory Systems Across the North*'. August 2008, http://aged.alternativesnorth.ca/pdf/ANResponseToTheMcCrankReport.pdf, date accessed December 12, 2014.

Arteau, J-F (2010) 'Canada's Sovereignty in the Arctic: An Inuit Perspective', *The Arctic Governance Project,* http://www.arcticgovernance.org/canadas-sovereignty-in-the-arctic-an-inuit-perspective.4797367-142902.html, date accessed October 18, 2014.

Barnes, N. (2004) 'Legal Systems', in *AHDR (Arctic Human Development Report)* (Akureyri: Stefansson Arctic Institute, Reykjavik, Iceland), pp. 101–116.

Berger, T.R. (1988) *Northern Frontier, Northern Homeland: The Report of the Mackenzie Valley Pipeline Inquiry* (Vancouver: Douglas & McIntyre).

Bone, R. (2012) *The Canadian North: Issues and Challenges* (Toronto: Oxford University Press).

Borgerson, S.G. (2008) 'Arctic Meltdown: The Economic and Security Implications of Global Warming', *Foreign Affairs*, March 2008.

Byers, M. (2009) *Who Owns the Arctic? Understanding Sovereignty Disputes in the North* (Vancouver: Douglas and McIntyre).

Campbell, D. (2009) 'Roadmap to Nowhere', *Up Here Business*, October 18.

Campbell, A., T. Fenge and U. Hanson (2011) 'Implementing the 1993 Nunavut Land Claims', *Arctic Review on Law and Politics,* 1(2), 25–51.

Canadian Broadcasting Corporation (CBC) (2013) '5 Things to Know about the Proposed N.W.T. Superboard', December 4, 2013, http://www.cbc.ca/news/canada/north/5-things-to-know-about-the-proposed-n-w-t-superboard-1.2451084, date accessed December 12, 2014.

Christensen, T. and Lægreid, P. (2007) The Whole-of-Government Approach to Public Sector Reform. *Public Administration Review*, 67, 1059–1066.

DOI: 10.1057/9781137468253.0011

Clement, W. (1996) *Understanding Canada. Building on the New Canadian Political Economy* (Montreal: McGill-Queens University Press).
Coates K. and G. Poelzer (2014) 'Completing Confederation – The North Wants In', *National Post*, April 22, 2014, http://fullcomment.nationalpost.com/2014/04/22/coates-poelzer-completing-confederation-the-north-wants-in/, date accessed December 12, 2014.
Coates, K., P.W. Lackenbauer, B. Morrison and G. Poelzer (2008) *Arctic Front: Defending Canada in the Far North* (Markham ON: Thomas Allen Publishers).
Dittmer, J. et al. (2011) 'Have You Heard the One about the Disappearing Ice? Recasting Arctic Geopolitics', *Political Geography,* 30, 202–214.
Dodds, K. (2010) 'Flag Planting and Finger Pointing: The Law of the Sea, the Arctic and the Political Geographies of the Outer Continental Shelf', *Political Geography,* 29(2), 63–73.
Fenge, T. (2007–2008) 'Inuit and the Nunavut Land Claims Agreement: Supporting Canada's Arctic Sovereignty', *Policy Options*, December–January, 84–88.
Foucault, M. (2007) *Security, Territory, Population, Lectures at the College de France 1978–1979* (New York: Palgrave).
Government of Canada (2007a) *Canada's Northern Strategy*, http://www.northernstrategy, gc.ca/cns/au-eng.asp, date accessed October 12, 2014.
Government of Canada (2007b) 'Sharing Canada's Prosperity, a Hand Up, Not a Handout: Final Report, Special Study on the Involvement of Aboriginal Communities and Businesses in Economic Development Activities in Canada', Standing Senate Committee on Aboriginal Affairs, March 2007, www.parl.gc.ca/Content/SEN/Committee/391/abor/rep/repo6-e.pdf, date accessed December 12, 2014.
Government of Canada (2013a) *Arctic Sovereignty (Reports and Responses),* http://www.parl.gc.ca/committeebusiness/ReportsResponses.aspx?Cmte= NDDN&Language=E&Mode=1&Parl=40&Ses=3, date accessed December 12, 2014.
Government of Canada (2013b) *Canadian Northern Economic Development Agency (CanNor),* http:// www.cannor.gc.ca/eng/13813207 11612/1381320727939, date accessed November 12, 2014.
Government of Canada (2013c) *Northern Strategy,* http://www.northernstrategy.gc.ca /index-eng.asp, date accessed December 12, 2014.
Graben, S. (2011) 'Living in Perfect Harmony: Harmonizing Sub-Artic Co-Management through Judicial Review', *Osgoode Hall Law Journal,* 49, 199–236.

DOI: 10.1057/9781137468253.0011

Grant, S.D. (2010) *Polar Imperative. A History of Arctic Sovereignty in North America* (Vancouver: Douglas & McIntyre).
Hayter, R. and J. Patchell (2011) *Economic Geography, an Institutional Report* (Toronto: Oxford University Press).
Huebert, R. (2010) 'The Newly Emerging Arctic Security Environment', Prepared for the Canadian Defence & Foreign Affairs Institute.
International Labor Organization (ILO) (nd), 'Convention 169 concerning Indigenous and Tribal Peoples in Independent Countries', http://www.ilo.org/dyn/normlex/en/f?p= NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C169, date accessed December 12, 2014.
Knox, P., L. McCarthy and J. Agnew (2008) *The Geography of the World Economy* (London and New York: Routledge).
Lackenbauer, P.W. (2010) *The Canadian Forces and Arctic Sovereignty: Debating Roles, Interests and Requirements, 1968–1974* (LCMSDS Press, Waterloo: Wilfred Laurier University).
Lackenbauer, P.W. (2011) 'Canada and Arctic Sovereignty and Security: Historical Perspectives', *Calgary Papers in Military and Strategic Studies* (Calgary: Centre for Military and Strategic Studies/University of Calgary Press).
Lackenbauer, P.W. (2014) *The Canadian Rangers: A Living History* (Vancouver: UBC Press).
Lindroth, M. (2011) 'Paradoxes of Power: Indigenous Peoples in the Permanent Forum', *Cooperation and Conflict,* 46, 543.
Macintosh, W.A. (1923) 'Economic Factors in Canadian History', *The Canadian Historical Review,* 4(1) (March), 12–25.
Mansfield, B. (2004) 'Rules of Privatization: Contradictions in Neoliberal Regulation of North Pacific Fisheries', *Annals of the Association of American Geographers,* 94(3), 565–584.
Mason, A., R. Anderson and L-P. Dana (2008) 'Oil and Gas Activities in the Mackenzie Delta, in Canada's Northwest Territories', in Mikkelsen and O. Langhelle (eds.), *Arctic Oil and Gas, Sustainability at Risk?* (London and New York: Routledge), pp. 173–199
McCann, L. and A. Gunn (1998) *Heartland and Hinterland: A Geography of Canada* (Scarborough: Prentice Hall).
McCrank, N. (2008) *Road to Improvement: The Review of the Regulatory Systems across the North* (Ottawa: Indian and Northern Affairs Canada).

DOI: 10.1057/9781137468253.0011

Munson J. (2014) 'CanNor's Growing Pains Laid Out in Ferguson's Report', *Ipolitics*, May 6, 2014, http://www.ipolitics.ca/2014/05/06/cannors-growing-pains-laid-out-in-fergusons-report/

Murphy, A.B. (1996) 'The Sovereign State System as Political-Territorial Ideal: Historical and Contemporary Considerations', in T. Biersteker and C. Weber, (eds.), *State Sovereignty as Social Construct* (Cambridge: Cambridge University Press), pp. 81–120.

Newman, D. (2005) 'From the International to the Local in the Study and Representation of Boundaries: Theoretical and Methodological Comments', in H.N. Nicol and I. Townsend Gault (eds.), *Holding the Line: Borders in a Global World* (Vancouver: UBC Press), pp. 400–413.

Nicol, H.N. (2010) 'Reframing Sovereignty: Indigenous Peoples and Arctic States', *Political Geography,* 29(2), 78–80.

Nicol, H.N. (2013) 'Natural News, State Discourses and the Canadian Arctic', *Arctic Yearbook*, http://www.arcticyearbook.com/images/ Articles2013/NICOL%20AY13_FINAL.pdf , date accessed November 30, 2014.

Nicol, H.N. and L.K. Heininen (2008) 'Networking the North: Cross Border Connections and the New International Circumpolar Geopolitics', *Southern Journal of Canadian Studies*, 2(1), 11–26.

Nicol, H.N. and L.K. Heininen (2013) 'Human Security, the Arctic Council and Climate Change: Competition or Co-existence?', *Polar Record*, 48(3), 214–222.

Nunatsiaq News (2014) 'Auditor General: CanNor Struggles with Staffing, Administration, Office Space. Aglukkaq Says CanNor Is "Effective and Efficient" – NDP Critic Says It's "in Disarray"', May 7, 2014, http://www.nunatsiaqonline.ca/stories/article/65674 auditor general cannor struggles with_staffing_administration_office_s/, date accessed December 12, 2104.

Penikett, T. (2010) 'At the Intersection of Indigenous and International Treaties', Draft paper, http://www.arcticgovernance.org/at-the-intersection-of-indigenous-and-international-treaties.4666885.html, date accessed December 17, 2014.

Querenguesser, T.J. (2013) 'Boundaries of Identity: The Boundaries of Unity: Implications of Proposed Reforms to the Mackenzie Valley Resource Management Act for the Future Boundaries of the Northwest Territories', Unpublished MRP, Trent University, Peterborough, Ontario.

DOI: 10.1057/9781137468253.0011

Stevenson, M. (2004) 'Decolonizing Co-management in Northern Canada', *Cultural Survival Quarterly,* 28(1), 68–72.
Teeple, N. (2010) 'A Brief History of Intrusions into the Canadian Arctic', *Canadian Army Journal,* 12(3), (Winter), 45–68.
Tonami, A. (Forthcoming) 'China and Japan in the Arctic: Economic Security and the Role of Foreign Policy for the "Developmental State" '. Article based on a presentation in the session 'The Nexus of Extractive Industries, the Environment and Climate Change: An Arctic (Security) Paradox' of the Arctic Security Panel at Arctic Circle 2013, October 12–14, 2013, in Reykjavik, Iceland.
Vongdouangchanh, Bea. (2006) Cabinet Waiting for Defense Department's 10-Year Arctic Military Plan: O'Connor.'October 16, Policy Briefi ng Canada's North. http://www.hilltimes.com/pb/view/2006-10-16.
Wallace, I. (2002) *A Geography of the Canadian Economy* (Toronto: Oxford University Press).
Watkins, M.H. (1963) 'Staple Theory of Economic Growth', *Canadian Journal of Economies and Political Science,* 29(2), 141–158.
Wegge, N. (2011) 'The Political Order in the Arctic: Power Structures, Regimes and Influence', *Polar Record*, 47, 165–176.
White, G. (2006) 'Cultures in Collision: Traditional Knowledge and Euro-Canadian Governance Processes in Northern Land-Claim Boards', *Arctic*, 59(4), 401–414.
White, G. (2008) ' "Not the Almighty": Evaluating Aboriginal Influence in Northern Land-Claim Boards', *Arctic,* 61(Suppl 1), 71–85.

DOI: 10.1057/9781137468253.0011

7

The Arctic, Laboratory of the Anthropocene

Matthias Finger

Abstract: *The Arctic, because of its particular exposure to climate change, has become a laboratory of the Anthropocene in two interlinked aspects, called the 'Arctic paradox': on the one hand, the Arctic is particularly affected by the anthropocenic effects on the Earth System, in particular global warming. These anthropogenic effects have the potential to trigger a series of tipping points, which, in turn, will irreversibly alter the balance of the Earth System, at least as it prevailed during the Holocene, and become security issues. On the other hand, the warming Arctic is opening up new, unprecedented opportunities for oil, gas and minerals exploration and exploitation, thus offering yet another lease on life to industrial civilization, the very origin of the Anthropocene. Can this paradoxical dynamics be broken?*

Keywords: climate change; laboratory; the Anthropocene; the Arctic paradox; the earth system – global; the global Arctic; tipping point

Heininen, Lassi, ed. *Future Security of the Global Arctic: State Policy, Economic Security and Climate*. Basingstoke: Palgrave Macmillan, 2016. DOI: 10.1057/9781137468253.0012.

Introduction

This chapter is about how the geophysical (and socioeconomic) dynamics in the Arctic affects the Earth System, on the one hand, and how industrial civilization, on the other hand, affects the Arctic. As such, this chapter is part of a larger *Global Arctic Project*.[1] In it, we study precisely this dual dynamics between biophysical and socioeconomic global change on the one hand and between the Earth System and the Arctic on the other. As such, the Arctic – defined here in geographical terms as the territories North of the Arctic Circle – constitutes a unique laboratory of the Anthropocene.

The chapter is socioepistemological in nature: at least since the Cold War the Arctic has become an integral part of the dynamics of modern, industrial civilization and related global bio-geo-physical change (Heininen and Southcott, 2011). Industrial development, in turn, builds on a long process that started with the Christianization of old Europe (Western Roman Empire) and led, via the creation of the modern state, science, engineering, colonization and globalization to today's global industrial civilization. Modernization and industrial development is thus seen as a transformation of socioepistemological proportions, involving humanity's relationships to the world, nature, society and ourselves. What happens in the Arctic is simply the latest stage of a process that is exponentially and irreversibly altering the *Face of the Earth* (William, 1956) or the Earth System. In this context, it is also worth mentioning that industrialization did not only happen outside of the Arctic, but was actually actively pursued in the Soviet Arctic since World War II.

It is also within this socioepistemological perspective that the concept of the 'Anthropocene' is most relevant: to recall, the Anthropocene is the most recent stage of geological evolution, that is, the stage where industrial civilization has itself become a geological force. As I will argue in the first two sections of this chapter, the Arctic is first a laboratory of bio-geo-physical forces, of course, also affected by economics of natural resources, geopolitics and globalization more generally. In other words, in the Arctic we can see most clearly how industrial civilization acts as a geological force (Anthropocene) and how Arctic transformations of geological proportions (e.g., ice cover) in turn affect the planet through various so-called tipping points. The subsequent two sections will then focus on the socioeconomic dimensions of the 'Arctic laboratory', that is, on the dynamics of (socioeconomic) development in the Arctic: indeed,

DOI: 10.1057/9781137468253.0012

given the path of development (more on this in the following pages), this changing (bio-geo-physical) Arctic is likely to be interpreted as yet another development opportunity. The chapter will conclude by arguing that *The Age of the Arctic* (Young, 1986) does indeed constitute a unique historical moment, more precisely a laboratory where global change directly affects Humanity and where the consequences of the pursuit of industrial development directly determine the fate of humanity in the Anthropocene.

What is the Anthropocene and why is this important?

The 'Anthropocene' is the latest concept of a long history of considerations about the impact of industrial development on the biosphere, that is, the 'envelope' that allows for life on Earth (Grinevald, 2012). As such, the concept, coined in 2000 by the famous Paul Crutzen (Nobel prize in chemistry in 1995 and founder of the theory of the 'nuclear winter') and Eugene Stoermer, basically revitalizes and captures a long-lasting debate about the role of 'humanity' (the 'human footprint') as a geological force (Crutzen and Stoermer, 2000). More precisely, the Anthropocene defines the 'present' time interval, even though there remains some controversy as to when exactly the Anthropocene replaces the Holocene (see later pages in the chapter).

The concept did not fall from the sky; rather, it emerged in the context of the International Geosphere Biosphere Programme of the 1990s and early 2000s, of which Crutzen was then Vice-Chair. More precisely, the concept has to be located within the so-called interdisciplinary Global Change Research Program (starting 1989) with a focus on an 'Earth System' approach, but can be more generally put into the context of the critical assessment of the role of industrial development (Grinevald, 2007). The Anthropocene is to replace the Holocene as the current geological epoch and 'became a powerful concept for framing the ultimate significance of global change' (Steffen, 2004). The concept has now moved beyond the global change research community into the mainstream, geological community and beyond (Steffen et al., 2011).

The main features of the Anthropocene are described through a series of figures – so-called Great Acceleration graphs – in the overall IGBP synthesis volume (Steffen et al., 2004), showing 'many shifts in the global environment over the last two centuries away from Holocene

DOI: 10.1057/9781137468253.0012

patterns and limits' (Steffen, 2004, p. 617). These Great Acceleration graphs include land erosion and sediment transport, changes in the chemical composition of the atmosphere, oceans and soils, significant anthropogenic perturbations of the cycles of elements such as carbon, nitrogen, phosphorus and various metals; changes in environmental conditions generated by these perturbations such armas global wing, ocean acidification and spreading oceanic 'dead zones'; and changes in the biosphere both on land and in the sea, as a result of habitat loss, predation, species invasions and the physical and chemical changes noted. These biophysical changes coincide with changes in population, urbanization, economic activity, resources use and connectivity. From these data (e.g., IGBP's Great Acceleration graphs) 'we can infer that that the Anthropocene began around the Industrial Revolution in Europe (...). Things progressed relatively slowly for a century and a half before the stage of Great Acceleration (1950 onward). Consumption brought on by affluence and technology overtook population as the greater driver of change, a trend that continues to date' (Syvitski, 2012, p. 13).

This 'Great Acceleration' raises the question of the 'thresholds we have to worry about' (Syvitski, 2012, p. 14) and, more generally, the question of the 'next steps'. Says Steffen (2004, p. 5): 'Will humanity charge ahead more deeply and irreversibly into the Anthropocene, perhaps by attempting to geoengineer its way out of the climate crisis; or will it have the humility (and good sense) to pull away from its present course, redefine its relationship with the rest of nature, and steer back toward a Holocene-like state of the Earth System?'

The Arctic as a laboratory of the Anthropocene

In this section I will first show that the Arctic constitutes a perfect illustration, actually the most dramatic illustration and laboratory, of the Anthropocene, so-to-speak 'Anthropocene in action'. I will then argue that the Arctic is more than that, namely, a potential tipping point for the global Earth System. This is what makes the Arctic particularly interesting and relevant and justifies placing the Arctic in the context of the Anthropocene.

The main illustration of the Anthropocene in the Arctic is clearly climate change and subsequent receding ice (Finger-Stich and Finger, 2012). To recall, the Intergovernmental Panel on Climate Change (IPCC),

DOI: 10.1057/9781137468253.0012

in its third assessment report published in 2001, mobilized considerable scientific and political attention about the effects of global warming on Arctic sea and land ice (IPCC, 2001, 2.2.5.2.). It also modeled sea-level rise, which was said to be sensibly higher for the Arctic Ocean than for other oceans (3 mm./yr., instead of 2mm.). Other positive feedback mechanisms, such as induced albedo effect, melting permafrost with increasing carbon and methane emissions and stratospheric ozone depletion were also highlighted (IPCC, 2001, 14.2.3.2; UNEP, GRID, 2007). For example, in summer 2007 the North West Passage was for the first time navigable without breaking ice, and the North East Passage to a great extent as well (Roach, 2007). Climate models and scenarios of mitigation had to be corrected to reflect the accelerating trend, considering also variables of the climate system such as snow cover, permafrost, acidification of oceans, increase in the coverage of Arctic tundra and occurrences of large forest fires. It is fair to say that the effects of anthropogenic global warming are most visible in the Arctic, be it the extent or the speed of global warming. Paradoxically, the Arctic seems to be more shaped by industrial civilization than most other parts of the planet, comparable only to the Alps, the Andes or the Himalayas.

But what happens in the Arctic is not only a consequence of global change; change in the Arctic climate may well become an accelerator of further global change. For example, and further building on the third IPCC Report's findings, the Arctic Council and the International Arctic Science Committee presented the upcoming Arctic Climate Impact Assessment (ACIA, 2005) to the IPCC. This document brought global attention to climate warming in the region, which may suddenly accelerate and lead to possibly catastrophic events with irreversible repercussions, such as the break-up of a big ice shelf section leading to a rapid increase in sea level (UNEP, GRID, 2007). The metaphor and catchword used to describe this situation – when unleashed changes start to proceed – was the 'tipping point'. For instance, referring to the ice-melt of the summer 2007, Mark Serreze, scientist from the National Snow and Ice Data Center in Boulder (Colorado, USA), comments that climate models had underestimated the rate of sea ice loss and that there is a tipping point under which sea ice loss can no longer recover from year to year. According to a model developed by Marika Holland from the National Center for Atmospheric Research, the critical sea ice thickness maybe 2.5 m. and then 'you kind of fall over the edge' (Serreze cited in Emmerson 2010, pp. 150–151).

DOI: 10.1057/9781137468253.0012

More precisely, the Arctic cryosphere constitutes one of the main identified tipping points globally (Fleming, 2008; Lenton et al., 2008; Nuttall, 2012; Wadhams, 2012; Young, 2012): if we are to lose Arctic ice cover, and especially Greenland's ice sheet, then this will trigger an irreversible 'dangerous change' of the global climate system. More generally, the Arctic holds four such tipping points for the Earth System: the first one is, as mentioned earlier, the ice cover with its albedo effect; the second tipping point is constituted by the effects of methane release both on land (permafrost) and in the sea; the third tipping point pertains to the acidification of the Arctic Ocean; and the fourth one to changing ocean currents. All four tipping points may irreversibly affect the Earth System as a whole.

The Arctic, the next frontier of development?

But these geophysical dynamics constitutes only half of the 'Arctic laboratory'. The other half is constituted by the role the Arctic can and will play in the context of world development. Indeed, the Arctic holds an important portion of the Earth's fossil fuel (and minerals) resources (Gautier and Pierce, 2008; Howard, 2009). These are the resources that industrial civilization desperately needs in order to pursue its development trajectory. As Arctic ice recedes because of accelerating global warming, these resources become increasingly accessible. Consequently, the Arctic will become a theater of economic, industrial and geopolitical interests and related security concerns (Heininen, 2010; see also the other chapters this volume). In addition, when exploited, burnt and used up, these resources will inevitably accelerate global change and are likely to trigger the aforementioned tipping points. This is what I have called elsewhere the 'Arctic Paradox' (Finger, 2013; Palosaari, 2011), a paradox that is actually already well underway in the Arctic. Therefore, Steffen's question can be reformulated for the Arctic: 'Is industrial civilization capable of restraining itself from exploiting the Arctic's resources, so as to give it a chance not to trigger these tipping points?'

But, how likely is such self-restraint on behalf of industrial civilization in the Arctic, and elsewhere for that matter (e.g., Amazonian rainforest)? Can global industrial civilization (and its main relevant actors, namely, nation-states, international organizations, transnational

DOI: 10.1057/9781137468253.0012

corporations and nongovernmental organizations) – engaged as it is on its path-dependent and increasingly institutionalized development trajectory – avoid the temptation of exploiting the Arctic's resources? More precisely, how likely is it that corresponding collective action will take place *before* any or several of these Arctic tipping points are triggered?

In order to assess the likelihood of such possible action on behalf of industrial civilization, a brief look into history, in particular into the history of development, is in order. It is, indeed, this very process of development that has led to the current era of the Anthropocene. Finger and Grinevald analyze, in a forthcoming publication, development as a sequence of 12 historical moments, during each of which other developmental options would have been possible yet were sidelined and irreversibly eliminated. Consequently, development became ever more path-dependent, institutionalized, resources consuming and impacting on the Earth System, and this to the point that Humanity has now entered the Anthropocene. Figure 7.1 summarizes this developmental trajectory graphically.

This is not the place to argue why each of these historical moments is important and determining for the next steps of this development path.

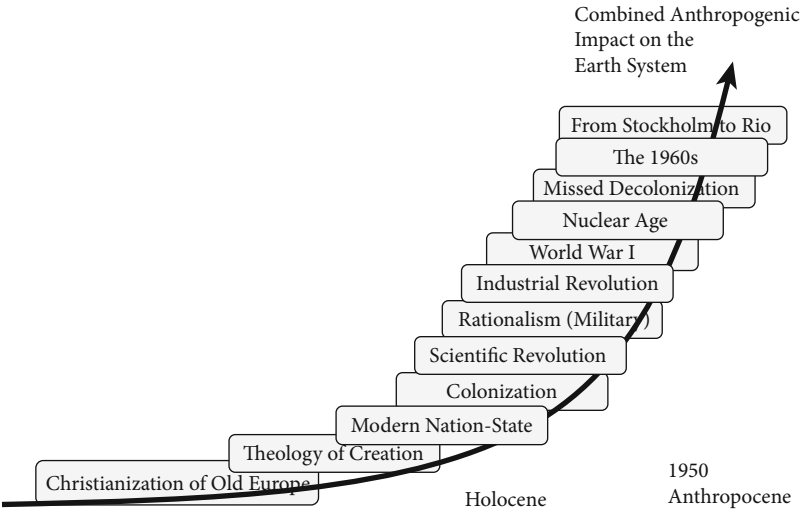


FIGURE 7.1 *The trajectory of development*

Source: Created by author.

DOI: 10.1057/9781137468253.0012

For this chapter, only the following four considerations are especially relevant:

1. There is a parallelism, if not a causal relationship, between this development trajectory, on the one hand, and the 'Great Acceleration graphs' of Steffen (2014), all of which measure some form of anthropogenic impact on the Earth System and lead, in their combination, to the Anthropocene. To recall, some of the particularly relevant Great Acceleration graphs (depicting exponential growth) pertain to population (growth), total real GDP, motor vehicles, water use, foreign direct investment, fertilizer consumption, international tourism, atmospheric CO_2 concentration, ozone depletion, loss of tropical rainforest, Northern Hemisphere average surface temperature, great floods, global biodiversity loss, McDonald's restaurants and others more.
2. This development trajectory is characterized by a series of steps (historical moments) that build on each other (e.g., path-dependency) and which lead to the fact that development is increasingly institutionalized, thus restricting, at each further step, the available options for Humanity.
3. Particularly crucial such historical moments along this development trajectory are the emergence of the modern nation-state, which subsequently plays a key role in its institutionalization, as well as the Industrial Revolution that grounds (and institutionalizes) development irrevocably on fossil fuels and on a fossil-fuel-based (global) economy.
4. With the nation-state playing such a key role in development, the nation-state's military logic of security comes to constitute, since the 17th century, the overall framework along which threats to development (and to the nation-state) are being interpreted. Security thus inevitably also becomes the framework along Arctic development will be approached.

'Security' and the Arctic paradox

The Arctic, because of its resources becoming rapidly available thanks to global warming, clearly has the potential of becoming the next frontier of development. In this section, I will first argue that such development of the Arctic is not only highly likely, but that it furthermore will take

DOI: 10.1057/9781137468253.0012

place within the broad framework of security. As anthropogenic impact on the Earth System will inevitably result from such Arctic development, tipping points in the Arctic (and beyond) are also becoming more likely. I will therefore explore, in the second part of this section, how such tipping points are likely to be approached within the prevailing framework of security.

Securing Arctic development

One year after the mentioned 2007 Arctic climate event, the US Geological Survey (2008) released estimates stating that about 25 percent of the world's oil and gas reserves lie in the Arctic, most of it offshore in the Arctic Ocean (13 percent of world oil reserves and 30 percent of gas reserves) (Finger-Stich and Finger, 2012). Suddenly, the Arctic paradox became obvious, as the Arctic is on one hand the place where the effects of climate change are among the strongest, and on the other, the region where there are the greatest remaining reserves of hydrocarbons in the world. Furthermore, as the International Energy Agency recognized that the need for world peak oil was probably reached in 2006, the pressure to access the few remaining reserves that can be exploited efficiently (with positive energy return on energy and capital invested) becomes very acute.

This Arctic paradox can also be formulated as follows: global warming, and especially its consequence in the form of Arctic sea ice melting, leads to a 'huge temptation'. This is the temptation to exploit the submarine geological resources, in particular oil and gas to the 'very end', something that will further accelerate climate change and further endanger the Earth's global habitability. The relevant philosophical and anthropological question is whether Humanity can resist this temptation.

Now, this temptation is actually not specific to the Arctic. Similar temptations exist, such as, for example, the temptation to clear the Amazonian or the Congolese rainforests and, by doing so, access fossil fuel resources or simply 'develop' land for biofuels and/or intensive agriculture. Other temptations are a little bit more complicated, yet equally real. These are the ones that are made possible by scientific and even more so technological advances, such as in the case of deep sea drilling. The Arctic actually rather resembles this latter category, given that, even with receding ice, significant technological means (and additional research) will have to be engaged in order to be able to exploit the available resources.

DOI: 10.1057/9781137468253.0012

So, what makes the Arctic different? I have already mentioned the magnitude of the available resources in the Arctic (Gautier and Pierce, 2008; Kontorovitch et al., 2010). In addition, one has to mention the particular role of nation-states: most of the Arctic's territories are actually divided up among nation-states and only very few areas are still being disputed.[2] Furthermore, the areas that are outside the exclusive 200 nautical miles zone (the EEZ) are said not to be particularly resources-rich (Gautier and Pierce, 2008). In this respect, one must also mention the particular nation-state history in the Arctic, shaped as it is by the Cold War (1950–1990), and which has led to a substantial militarization of the Arctic (Fritz, 2013) during that period. Particular mention must be made here of the United States and Russia, and also of Norway and Canada, as actually little demilitarization has occurred since the end of the Cold War (see Heininen this volume). Moreover, the territorial and military aspects of nation-states appear particularly clearly and purely in the case of the Arctic, as the Arctic territory is sparsely populated, and as settlements are used, at least in the case of Russia, as a means to affirm territorial claims vis-à-vis indigenous peoples.

Security is a military concept, closely tied to the nation-state and its interests, in particular its interest in development; epistemologically it is the result of the Western military history emerging along the described development path as early as the modern nation-state (17th century); security underpins the nation-state, scientific rationalism, colonization, the Industrial Revolution and the 'domination of nature' more generally. As such, security is a key, if not *the* key (epistemological), driver of much of the development trajectory. The idea is to protect oneself (the individual, the nation, industrial civilization) from potential threats to (individual, national and industrial) development. The lack of (fossil) fuels (to sustain the development trajectory constitutes definitely a security threat. Consequently, industrial civilization – especially its main relevant actors notably the nation-states and the interested firms – will thus do whatever it takes to access and exploit the Arctic's resources. Environmental and other concerns (including the ones regarding the earlier-mentioned tipping points) will certainly be raised, but they will be sidelined and ultimately ignored, given the institutionalized development trajectory along which Humanity seems almost irreversibly engaged. In other words, the development of the Arctic will most likely be conceptualized and approached as a security issue (see also the other chapters in this volume).

DOI: 10.1057/9781137468253.0012

Tipping points and security

Tipping points, in the Arctic and elsewhere, may be analyzed just like threats to development, that is, from within the prevailing security approach. Tipping points in the Arctic – especially the (reduced) albedo effect, terrestrial and oceanic methane release and ocean acidification – may be interpreted as threats to human security, that is, threats to further development. As such, the Arctic may well become the first place where the security approach to the Anthropocene will be applied on a large scale, namely in the form of so-called geoengineering (Finger and Cabello, 2011).

Without doubt, global warming, especially if it takes catastrophic proportions, will make geoengineering, also called 'environmental modifications' or 'EnMod', more acceptable (see Fleming, 2007). To recall, global warming will continue to accelerate, given the development trajectory in general and the recent failure of traditional international environmental policy, including the failure of market mechanisms, in particular. Depending on how catastrophic the effects of global warming are going to be – which in turn will depend upon the mentioned particular tipping points, in the Arctic and elsewhere – geoengineering 'solutions' will become not only acceptable, but may well be, given the prevailing security approach, explicitly called for. In fact, the Arctic will be an ideal initial testing ground for geoengineering, given that the tipping points are located in the Arctic. Testing of such geoengineering solutions in the Arctic laboratory is even more likely, as the Arctic is sparsely populated and local protests will be limited. There is actually already a precedent, as the Arctic was a testing and training ground for the military already back in the Cold War (see Heininen, 2010).

To recall, and in line with the prevailing security approach to problems emerging along the development trajectory, geoengineering is based on military technologies, whose roots go back to the Vietnam War or even before. The main characteristic of such technologies is that they are aimed at modifying the local environment (among which the climate), which in turn negatively affects the enemy. In the case of fighting global warming, these same environmental modification technologies are said to have positive effects for Humanity, in that they should allow the pursuit of the development trajectory. The (in the short term) successful use of geoengineering solutions will in turn reinforce the prevalent mindset

DOI: 10.1057/9781137468253.0012

and approach, namely, that the environment (the climate) has become a security threat, and thus has to be fought against by military means and military-type technologies. Yet, most of these geoengineering technologies are not mature, inasmuch as their consequences cannot really be estimated. They therefore entail huge risks. Furthermore, geoengineering leads to a 'slippery slope', that is, to the fact that, once applied, it will need to be applied continuously, with ever more uncertain consequences and ever greater risks.

We have earlier tried to assess the likelihood of applying geoengineering 'solutions' to the threat of global warming, be it in the Arctic or elsewhere (Finger and Cabello, 2011). In doing so, we have identified four possible scenarios with corresponding likely action in terms of geoengineering, as well as a corresponding likely governance framework. Table 7.1 summarizes these scenarios.

TABLE 7.1 *Likely geoengineering scenarios in response to global warming*

Global warming scenario	Description of the scenario	Course of action in terms of geoengineering	Governance framework	Negative consequences
Slow development	Things continue (e.g., regular increase in CO_2 concentrations) without major disasters)	Research	Multilateral action through the UN	None; possible lack of incentives to mitigate emissions
Natural disasters, global increment	Accelerated increase of climate-related natural and human disasters	Applied research (in the Arctic?)	Multilateral action through the UN	Further damage to the Earth System
Unexpected large-scale disaster	Sudden large-scale disaster with significant economic impact and loss of lives	Accelerated research testing (in the Arctic?)	Joint action by a group of countries outside a UN framework	War, 'slippery slope'
Anticipated worldwide catastrophe	Armageddon	Immediate action of best odds technique(s) in the Arctic and beyond	Unilateral action by one country alone	Failure and partial annihilation of higher life on Earth

Source: Compiled by author.

DOI: 10.1057/9781137468253.0012

Table 7.1 indicates that without a radical change away from the prevailing security approach, geoengineering solutions to global warming will definitely become an option, resulting from the combined advancement of geoengineering research and technologies on the one hand and the perceived threats to the development trajectory on the other. Arctic tipping points – combined with global shortages of oil, gas and other vital resources for development – are likely to further increase such perceived security threats, and may well lead to using the Arctic as a laboratory of geoengineering.

Conclusion: the Arctic paradox as the next bifurcation

Since the Cold War and the advent of the Anthropocene – which incidentally coincide – the Arctic has become a laboratory, a 'laboratory of the Anthropocene': on the one hand, the geophysical dynamics resulting from anthropogenic Global Change has the potential to trigger global warming tipping points in the Arctic. As such, the Arctic is a geophysical laboratory of (what happens in) the Anthropocene. On the other hand, the Arctic holds and increasingly reveals, as a result of global warming, precious fossil and mineral resources for the pursuit of the development trajectory (the same trajectory that precisely led to the era of the Anthropocene in the first place). As such, the Arctic is a socioeconomic laboratory of (the choices Humanity has to make in the era of) the Anthropocene.

This Arctic paradox – that is, opportunity to exploit, thanks to global warming, the very resources that cause global warming to begin with and are likely to accelerate it by way of Arctic tipping points – actually confronts Humanity with a quite clear choice. It is the choice between renouncing further exploitation of fossil and mineral resources (in the Arctic) on the one hand (e.g., 'leave-it-in-the-ground') or pressing ahead with such resources exploitation at the risk of having to resolve to geoengineering solutions in the future (in the Arctic and elsewhere). On a more philosophical level, this is also the choice between the pursuit of the development trajectory along the prevalent security approach as promoted by the traditional actors, notably nation-states and global business actors, and the renouncement to this approach and to the development trajectory more generally, accompanied by a reliance on other, new types of actors.

DOI: 10.1057/9781137468253.0012

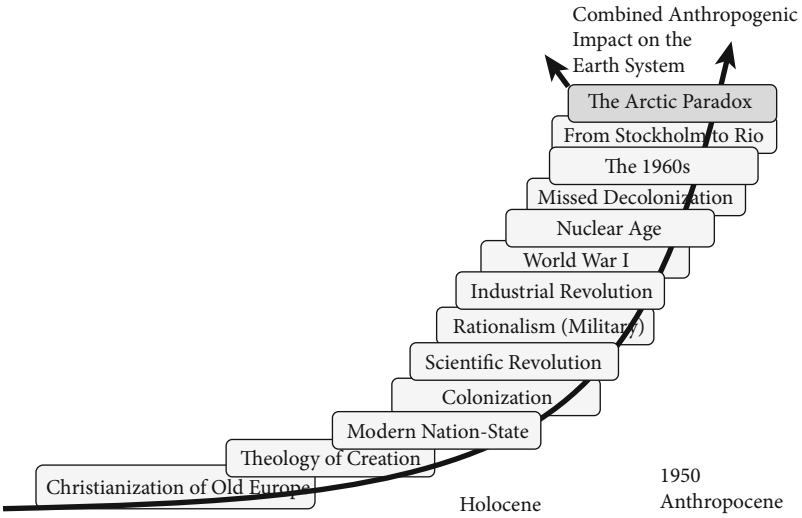


FIGURE 7.2 *The Arctic paradox as the next possible bifurcation*
Source: Compiled by author.

In this sense, the Arctic paradox may well become the next (13th) important historical moment – or bifurcation – along the development trajectory, as depicted by Figure 7.2.

To recall, the last possible bifurcation was during the so-called Rio-process. As we know, the anthropogenic threats to the Earth System were already clearly identified in Rio (i.e., the 1992 UN Conference on Environment and Development) and actually already 20 years earlier in Stockholm (1972 UN Conference on the Human Environment). But, they were redefined in terms of new growth opportunities, and radical actions were postponed and development was rebranded as 'sustainable development'. However, the recent awareness that we have now definitely entered the Anthropocene may well force Humanity to make a more considerate choice this time.

Notes

Professor, Swiss Post-Chair in the Management of Network Industries, Ecole Polytechnique Fédérale Lausanne (EPFL), Switzerland; matthias.finger@epfl.ch.

DOI: 10.1057/9781137468253.0012

1 See www.globalarctic.org.
2 For example, between the United States and Canada in the Beaufort Sea, where the conflict between Russia and Norway in the Barents Sea has recently been settled.

References

ACIA (Arctic Climate Impact Assessment) (2005) Downloadable at: http://www.acia.uaf.edu/pages/scientific.html

Crutzen, P. and E. Stoermer (2000) 'The Anthropocene', *Global Change Newsletter*, 41, 17–18.

Emmerson, C. (2010) *The Future History of the Arctic* (London: Bodley Head).

Finger, M. (2013) 'What Does the Arctic Teach Us? An Epistemological Essay on Business-Government Relations', in L. Heininen (ed.), *Arctic Yearbook 2013. The Arctic of Regions versus the Globalized Arctic*. Online publication – www.arcticyearbook.com

Finger, M. and A. Cabello (2011) 'Changing (the) Climate: What Future Role for Geo-engineering?', Paper presented at the International Studies Association (ISA), Montréal 2011.

Finger, M. and J. Grinevald (forthcoming). *Development Is the Problem, Not the Solution*.

Finger-Stich, A. and M. Finger (2012) '25 Years of Arctic Environmental Agency. Changing Issues and Power Relations', in L. Heininen (ed.), *Arctic Yearbook 2012*, pp. 194–222. Online publication – www.arcticyearbook.com

Fleming, J.R. (2007) 'The Climate Engineers', *The Wilson Quarterly*, 31(2), 46–60.

Fleming, J.R. (2008) *Climate Change and Anthropogenic Greenhouse-Warming: A Selection of Key Articles, 1824–1995, with Interpretative Essays*. NSDL Classic Articles in Context (No. 1). Retrieved from http://wiki.nsdl.org/indexphp/PALE:ClassicArticles/GlobalWarming

Fritz, S. (2013) 'Tracing the Legacies of Arctic Militarization' (UMI Dissertation).

Grinevald, J. (2007) *La Biosphère de l'Anthropocène : climat et pétrole, la double menace. Repères transdisciplinaires (1824–2007)* (Genève: Georg éditeur).

DOI: 10.1057/9781137468253.0012

Grinevald, J. (2012) 'Le concept d'Anthropocène, son contexte historique et sicentifique', *Entropia*, 12, 22–38.
Heininen, L. (2010) 'Globalization and Security in the Circumpolar North', in L. Heininen and C. Southcott (eds.), *Globalization and the Circumpolar North* (Fairbanks: University of Alaska Press), pp. 221–264.
Heininen, L. and C. Southcott (eds.) (2011) *Globalization and the Circumpolar North* (Fairbanks : University of Alaska Press).
Howard, R. (2009) *The Arctic Gold Rush* (New York: Continuum).
IPCC (2001) Third Assessment Report on Climate Change. Downloadable at: http://www.grida.no/publications/other/ipcc_tar/?src=/climate/ipcc_tar/
Kontorovitch, A.E. et al. (2010) 'Geology and Hydrocarbon Resources on the Continental Shelf in Russian Arctic Seas and the Prospect of Their Development', *Russian Geology and Geophysics*, 51, 3–11.
Lenton, T.M., Held, H., Kriegler, E., Hall, J.W., Lucht, W., Rahmstorf, S., and Schellnhuber, H.-J. (2008) 'Tipping Elements in the Earth's Climate System', *Proceedings of the National Academy of Sciences (USA)*, 105(6), 1786–1793.
Nuttall, M. (2012) 'Tipping Points and Human World: Living with Change and Thinking about the Future', *Ambio,* 41, 96–105.
Palosaari, T. (2011) 'The Amazing Race', *Nordia Geographical Publications*, 40(4) and *NGP Yearbook 2011* – 'Sustainable Development in the Arctic Region through Peace and Stability' (Tornio: Geographical Society of Northern Finland), pp. 13–29.
Roach, J. (2007) 'Arctic Nelt Opens North West Passage', *National Geographic News*, September 17, 2007, http://news.nationalgeographic.com/news/2007/09/070917-northwest-passage.html, date accessed May 2nd, 2012.
Steffen, W. (2004) 'The Anthropocene', in W. Steffen, A. Sanderson, P.D. Tyson, J. Jäger, P. Matson, B. Moore III, F. Oldfield, K. Richardson, H.-J. Schellnhuber, B.L. Turner II, and R.J. Wasson, *Global Change and the Earth System: A Planet under Pressure* (The IGBP Book Series, Springer-Verlag, Berlin, Heidelberg, New York).
Steffen, W., Crutzen, P.J. and J.R. McNeill (2007). The Anthropocene: Are Humans Now Overwhelming the Great Forces of nature? *Ambio*, 36, 8, 614–621.
Steffen, W., J. Grinevald, P. Crutzen and J. McNeill (2011) 'The Anthropocene: Conceptual and Historical Perspectives', *Philosophical Transactions of the Royal Society A,* 369, 842–867.

DOI: 10.1057/9781137468253.0012

Syvitski, J. (2012) 'Anthropocene: An Epoch of Our Making', *Global Change*, 78(March), 12–15.
Wadhams, P., J.A. Dowdeswell and A.N. Schofield (eds.) (1996) *The Arctic and Environmental Change* (London: Gordon and Breach Publishers).
William, T. (ed.) (1956) *Man's Role in Changing the Face of the Earth* (Chicago: University of Chicago Press).
Young, O. (1986) 'The Age of the Arctic', *Foreign Policy*, 61, 160–179.
Young, O. (2012) 'Arctic Tipping Points: Governance in Turbulent Times', *Ambio,* 41, 75–84.

DOI: 10.1057/9781137468253.0012

Index

DOI: 10.1057/9781137468253.0013

DOI: 10.1057/9781137468253.0013

DOI: 10.1057/9781137468253.0013

DOI: 10.1057/9781137468253.0013