

Advanced Sciences and Technologies for Security Applications

J. Martín Ramírez  
Jerzy Biziewski *Editors*

# Security and Defence in Europe

 Springer

# **Advanced Sciences and Technologies for Security Applications**

## **Series editor**

Anthony J. Masys, Associate Professor, Director of Global Disaster Management, Humanitarian Assistance and Homeland Security, University of South Florida, Tampa, USA

## **Advisory Editor**

Gisela Bichler, California State University, San Bernardino, CA, USA

Thirimachos Bourlai, West Virginia University, Statler College of Engineering and Mineral Resources, Morgantown, WV, USA

Chris Johnson, University of Glasgow, Glasgow, UK

Panagiotis Karampelas, Hellenic Air Force Academy, Attica, Greece

Christian Leuprecht, Royal Military College of Canada, Kingston, ON, Canada

Edward C. Morse, University of California, Berkeley, CA, USA

David Skillicorn, Queen's University, Kingston, ON, Canada

Yoshiki Yamagata, National Institute for Environmental Studies, Tsukuba, Ibaraki, Japan

The series *Advanced Sciences and Technologies for Security Applications* comprises interdisciplinary research covering the theory, foundations and domain-specific topics pertaining to security. Publications within the series are peer-reviewed monographs and edited works in the areas of:

- biological and chemical threat recognition and detection (e.g., biosensors, aerosols, forensics)
- crisis and disaster management
- terrorism
- cyber security and secure information systems (e.g., encryption, optical and photonic systems)
- traditional and non-traditional security
- energy, food and resource security
- economic security and securitization (including associated infrastructures)
- transnational crime
- human security and health security
- social, political and psychological aspects of security
- recognition and identification (e.g., optical imaging, biometrics, authentication and verification)
- smart surveillance systems
- applications of theoretical frameworks and methodologies (e.g., grounded theory, complexity, network sciences, modelling and simulation)

Together, the high-quality contributions to this series provide a cross-disciplinary overview of forefront research endeavours aiming to make the world a safer place.

The editors encourage prospective authors to correspond with them in advance of submitting a manuscript. Submission of manuscripts should be made to the Editor-in-Chief or one of the Editors.

More information about this series at <http://www.springer.com/series/5540>

J. Martín Ramírez • Jerzy Biziewski  
Editors

# Security and Defence in Europe

 Springer

*Editors*

J. Martín Ramírez  
Nebrija University  
Madrid, Spain

Jerzy Biziewski  
Dobczyce, Poland

ISSN 1613-5113

ISSN 2363-9466 (electronic)

Advanced Sciences and Technologies for Security Applications

ISBN 978-3-030-12292-8

ISBN 978-3-030-12293-5 (eBook)

<https://doi.org/10.1007/978-3-030-12293-5>

© Springer Nature Switzerland AG 2020

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

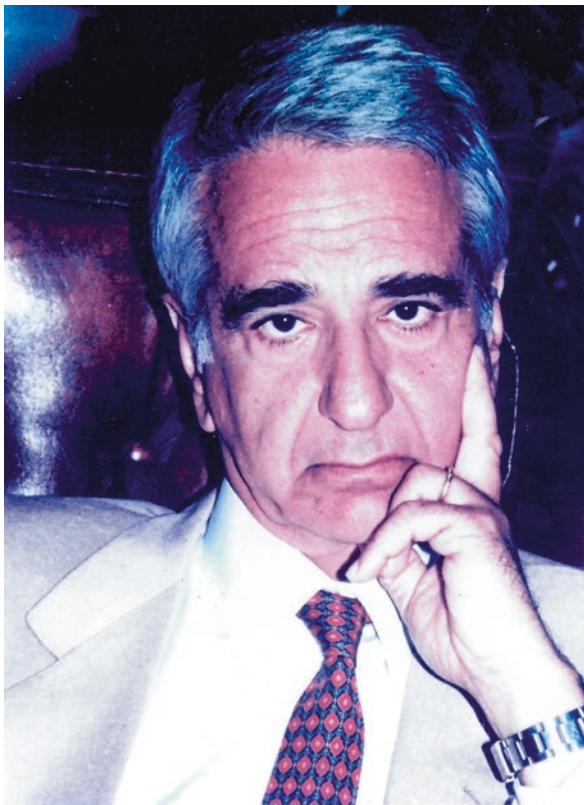
The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors, and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

This Springer imprint is published by the registered company Springer Nature Switzerland AG.

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

*In Memoriam*



*to Guillermo Velarde (1928–2018)*  
*“our atomic scientist”*  
*for his outstanding contributions to CICA*

Guillermo Velarde  
Founder and President of the Spanish  
Institute for Nuclear Fusion  
Member of Pugwash and of CICA  
International, Madrid, Spain

# The Meta-Tragedy of the Commons. Climate Change and the Securitization of the Arctic Region



Pablo A. Mazurier, Juan José Delgado-Morán, and Claudio A. Payá-Santos

## Outline

1	Introduction.....	64
2	The Tragedy of the Commons.....	64
3	The Meta-Tragedy of the Arctic Region.....	65
4	The Intergovernmental Governance of the Arctic.....	66
5	The Race to Securitize the Arctic in a Post-Cold War Scenario.....	67
6	The Dichotomic Role of the European Observer Countries.....	69
7	China's Policy as a "Near-Arctic" Power.....	70
8	Conclusive Notes.....	71
	References.....	72

**Abstract** The object of this paper is to analyze the current race for the securitization of the Arctic region. This situation is presented as a case of *meta-tragedy of the Commons*, as it embodies a tragedy within another tragedy. Or, in other terms, the international race for the vast resources of the Arctic is serving as an obstacle to achieve a broad consensus to tackle down the unusually devastating impact of the global warming phenomenon on that fragile, distant but globally essential ecosystem. Due to the complexity of the Arctic scenario, the preference for intergovernmental *fora* and the ambiguous interests and roles of its players, the inadequate trinomial between an ecological global tragedy, an economic individual business and a collective security race will tend to subsist and to increase its tragic effects over the environment.

---

P. A. Mazurier  
School of Advanced Studies Sant'Anna, Pisa, Italy  
e-mail: [p.mazurier@sssup.it](mailto:p.mazurier@sssup.it)

J. J. Delgado-Morán (✉)  
Catholic University San Antonio, Murcia, Spain  
e-mail: [jjdelgado@ucam.edu](mailto:jjdelgado@ucam.edu)

C. A. Payá-Santos  
Nebrija University, Madrid, Spain  
e-mail: [cpaya@nebrija.es](mailto:cpaya@nebrija.es)

© Springer Nature Switzerland AG 2020  
J. M. Ramírez, J. Biziewski (eds.), *Security and Defence in Europe*,  
Advanced Sciences and Technologies for Security Applications,  
[https://doi.org/10.1007/978-3-030-12293-5\\_5](https://doi.org/10.1007/978-3-030-12293-5_5)

63

**Keywords** Arctic securitization · Environment risk · Meta – tragedy of the commons · Polar geopolitics · Climate change

## 1 Introduction

The aim of this paper is to study the interaction between the three main dimensions of the securitization process of the Arctic region. In the first place, the Arctic implies a planetary struggle to stop its rapidly ecosystem's degradation caused by the global climate change, with the worldwide impact it could generate in the future. As a consequence of this first ecological challenge, the Arctic scenario is becoming more interesting for key transnational actors to develop new businesses opportunities regarding mining exploitation, energy reserves and logistic services. These new opportunities will increase the race for the conquest and the transformation of the Arctic from an inhospitable far land to a new sociable and profitable environment. And these two trends lead to a third dynamic, regarding national and transnational efforts to *securitize*<sup>1</sup> this new ecosystem.

While combining these three dynamics within the current institutional intergovernmental structure of governance of the Arctic international affairs, the outcome will tend to prioritize both business and security over ecology, reaffirming the *meta-tragedy of the commons* in the Arctic region and its interdisciplinary conflictive nature.

## 2 The Tragedy of the Commons

The concept of the Tragedy of the Commons was coined by British economist William Forster Lloyd in 1833, and popularized by ecologist Garrett Hardin in 1968. Foster Lloyd observed how, in case of lack of governmental regulation, common parcels of British land were over-used, while private parcels were in relative good condition. His explanation was crucial: each cattle herder, guided by individual rationality, prefers to increase the exploitation of common shared lands to feed his cattle. In so doing, all members of the community are eroding their common land by thinking egoistically. The Tragedy of the Commons is inherently linked to the moral problem of individual self-interested rational actions and its danger for the sustainability of common resources.

Nowadays, there are several global tragedies of the commons. Deforestation in Amazonia, South East Asia and in other forested areas around the world;<sup>2</sup> water

---

<sup>1</sup> *Securitization* occurs when an actor delivers a speech act to a specific audience to let them know about an existential threat, and, in so doing, this securitized issue would be faced with extraordinary security measures [4], *op. cit.*, p. 25 y ss.

<sup>2</sup> Deforestation contributes around 16% of human CO2 emissions which is in part responsible for the global warming struggle. Ref. UK Parliament [25], *op. cit.*, p. 4. And it is confined mostly in 15 specific areas around the world. Ref. WWF [27], *op. cit.*



management crisis in Africa [12]; Space debris;<sup>3</sup> plastic dumped in the oceans. Among these worldwide threats, this study is focused on the impact of human activities in the Arctic region. That vast area of the Northern Hemisphere is currently going through a radical change in every aspect of its composition. The main driver of this change is the global warming, which was induced by climate change and has resulted in the melting of ice in the region.

### 3 The Meta-Tragedy of the Arctic Region

Records show that the average temperatures in the Arctic region are rising twice as fast as they are elsewhere in the world<sup>4</sup> and the Arctic sea ice extent is declining at the rate of 3.4% per decade, relative to the 1981–2010 average [18]. Scientists are probing that there has been a thinning of the Arctic sea ice, melting of the Greenland ice sheet, and thawing of the permafrost [21]. Greenland has lost a trillion tons of ice a year in the last 4 years [13],

In the title this situation is described as a *meta-tragedy*, or in other words a tragedy within another tragedy, because the tragedy of global warming and its direct consequences on the melting of the Arctic sea has triggered an international race for the resources and for new commercial opportunities that the later tragedy has now made available. With this new trend, the obstacles to achieve an adequate solution to tackle down the risks of ice melting are doubled.

Many studies confirm that the Arctic region has up to 10–20% of the world's oil and nearly 30% of the world's unknown natural gas reserves, the equivalent of 90 billion barrels of oil, 1670 trillion cubic feet of natural gas, and 44 billion barrels of natural gas liquids [21]. Moreover, in this region is also plenty of large mineral reserves of zinc, copper, lead, nickel, coal, gold, diamond, uranium, platinum and REE (rare earth elements) [9]. And the Arctic sea contains some of the world's oldest and richest commercial fishing grounds which have not yet been exploited.

Simultaneously, the melting of the Arctic ice results in two emerging shipping routes (the Northwest Passage or the Northern Sea Route) during summertime, which could be frequently and safely used in the near future. With up to 40% savings of time and money over traditional routes, these new Arctic routes will certainly reshape the global transport system, increasing competition and conflict for access and natural resources [19].

---

<sup>3</sup>Nasa estimates there are more than 500,000 pieces of debris, or “space junk,” orbiting the Earth. [17], *op. cit.*

<sup>4</sup>In the Arctic, “the environmental impact of climate change doubles the average recorded worldwide.” Ref. Spanish Government [23], *op. cit.*, p. 9.

## 4 The Intergovernmental Governance of the Arctic

Unlike Antarctica, which is an inhabited continent, the Arctic is an area surrounding the Arctic Ocean located in the North Polar Region, with indigenous population, and it is governed by a multi-layered legal and institutional framework regarding several key issues, such as the protection of the local environment, the resource extraction, the resolution of international disputes on sovereign boundaries, the international protection of ships navigating in that area, the respect for indigenous populations and the promotion of their traditions and social context, and the scientific research.

One of its most important legal basis is the 1982 UN Convention on the Law of the Sea (UNCLOS), which control activities on, over, and beneath the Arctic Ocean, promoting a spirit of cooperation in the resolution of the disputes. There are still many overlapping claims in the oceans. Beyond the 200 mile Exclusive Economic Zone limit, there are still several dispute settlements to solve. Five Arctic countries (Russia, Norway, Canada, Denmark and the USA) lay a claim to the seabed resources by attempting to prove that the seabed is an extension of their continental shelf [21].

In 1996, the eight Arctic States<sup>5</sup> have created the Arctic Council (AC), in which they are permanent members. Although security issues were intentionally excluded from the mandate of this institution, it is internationally considered as the only pan-Arctic regional forum, and a high-ranking intergovernmental agenda-setting and decision-making body.<sup>6</sup>

While the Arctic countries, in particular Canada and Russia, might keep on militarizing its Arctic coasts, the non-Arctic countries will focus all their energies on maintaining the most Northern region of the world as a common heritage of the humanity and, thus, imposing its shared use [7]. In the last decade, there was a change in international actors' perception about the new opportunities emerging in the Arctic region. Twelve "outsiders," non-Arctic States, all of them key players in current international arena, were accepted as observers. France, Germany, The Netherlands, Poland, Spain, the United Kingdom, Italy, China, Singapore, Korea, Japan and India. For European states, their participation was deserved after their strong, centennial polar research tradition. And in the case of the Asian partners, their acceptance represents a process of international recognition for their key position as new emergent global powers. In the case of China, it has been seen as the last acknowledgment of its international participation as an equal power by those actors, in particular Russia and the USA, who have historically stressed their superiority during the "Hundred Years of Humiliation" and the Cold War [6].

While sovereign disputes and economic race are strongly played in the bilateral, intergovernmental and local scenarios, the institutional ecosystem related to the

---

<sup>5</sup>Canada, Denmark (with sovereignty over Faroe Islands and Greenland, which keep the status of autonomous territories), Norway, the Russian Federation, the USA, Iceland, Finland and Sweden.

<sup>6</sup>As recognized, for example, by the German Government. See: German Federal Government [9], *op. cit.*, p. 2.

United Nations is focused primarily on the environmental struggle. And, in recognition for UN support and commitment to the environmental protection of the Arctic, in 2016, Ban Ki-Moon, Secretary General of the United Nations, was awarded with the first Arctic Circle Prize. During the official ceremony, Secretary-General Ban emphatically expressed his concern about the global situation related to the Arctic, stating that “*the Arctic is Ground Zero for climate change*” and that “*there is no Plan B because we do not have a Planet B*”.<sup>7</sup> In 2018, the UN headquarters in New York have hosted the High-Level Political Forum on Sustainable Development (HLFP), which it was focused on the fast and globally dangerous impact of the global warming on the Arctic, raising awareness on its connection to the rest of the world’s welfare and urging for a broad and sustainable cooperation of all key actors. In particular, authorities from the Arctic Council, the United Nations’ Sustainable Development Working Group and the World Meteorological Organization, have emphasized the need to invest in innovative and truly sustainable development in such a fragile part of the planet.<sup>8</sup>

There is also a symbolic narrative related to the acceptance of these nations as members of the Arctic Council, consisting on declaiming their belonging to the Arctic region. In fact, in recent years, many Arctic Council’s observers started to consider themselves as part of the Arctic ecosphere. China declared itself as a “near-Arctic country” [20], or an “Arctic stakeholder,” [16], while others as Germany and Italy, consider themselves as “Arctic players in scientific research” [10]. The case of France is peculiar. It proclaims itself as a “Polar nation”,<sup>9</sup> on the basis of its strong tradition on expeditions, explorations and permanent research bases at the poles. From a constructivist point of view, such statements are crucial to understand the deep reasons about why and how these players are both configuring their own role and taking responsibility and further prerogatives on the basis of that new status in the Arctic international scenario.

## 5 The Race to Securitize the Arctic in a Post-Cold War Scenario

As a consequence of the global effects of climate change and the increasing human activity in the Arctic, in the past years several global superpowers were recalibrating their geostrategic calculations throughout this area. Both the Russian Federation and the USA have military structures in the Arctic region, based on their nuclear weapon systems. But, notwithstanding the fact that the Arctic Council serve

---

<sup>7</sup>As reported in one of the official portals of the Arctic institutions, the Arctic Portal: <https://arctic-portal.org/ap-library/news/1791-arctic-circle-prize-awarded-for-first-time>

<sup>8</sup>As published in the official website of the Arctic Council: <https://www.arctic-council.org/index.php/en/our-work/2/8-news-and-events/491-arctic-at-hlfp-sd-2>

<sup>9</sup>As expressed by Jean-Marc Ayrault, French Minister of Foreign Affairs and International Development at the Introduction of the French official policy document on the issue, *op. cit.*, p. 4.

constantly as an echo-chamber of the tensions between Russia and its Arctic neighbors caused by other planetary conflicts, there's still a consensus to avoid military maneuvers and conflicts in the Arctic region, reinforcing a resilient high stability based on both intergovernmental and interregional multilateral cooperation [10].

In 2007, Russians have drawn the attention of the whole world by planting a Russian flag on the North Pole seabed at 4261 meters below the ice, in an attempt to support Russian territorial claims on the Arctic. It generated an escalation of diplomatic criticism and geopolitical tensions.<sup>10</sup> Russia has always posed the question of the Arctic in terms of national security, "(...) all kinds of activity in the Northern regions are in the highest degree connected to providing of national security." (Zysk, cit. in [11]).

In response to the Russian proactive and typical *realpolitik* approach towards Arctic exploration, sovereign claiming and the exploitation of its resources, in 2010, the US Department of Defense declared that the changes in the Arctic region represent "a unique opportunity to work collaboratively in multilateral forums to promote a balanced approach to improving human and environmental security." [19]. In May 2013, President Obama released his National Strategy for the Arctic Region, highlighting that

The Arctic region is peaceful, stable and free of conflict," warning the Russians and any other country that "an undisciplined approach to exploring new opportunities in this frontier could result in significant harm to the region, to our national security interests, and to the global good. (President Obama, May 2013, cited in: [19]).

Obama's policy on the Arctic regions was then structured on the basis of four main goals: (1) to evolve Arctic infrastructure and strategic capabilities; (2) to enhance Arctic domain awareness; (3) to preserve Arctic region freedom of the seas; and (4) to provide for future United States energy security.

It is crucial to understand that a race for the conquest of the Arctic resources means also high costs of investments in very specific ice-capable assets,<sup>11</sup> to use during a still limited part of the year and in a still harsh and dangerous environment. So the Arctic is experiencing a new but slow process of securitization, mainly reflecting the Post-Cold War global tensions between Russia and the USA and the Western world. Besides the deployment of missile sea and air defense systems for strategic sealift and deterrence, the two superpowers have to deal with the other Arctic nations, which are trying to secure their own national interests, related to both the protection of their own society and environment and the need to secure freedom of navigation and over-flight as a prerequisite for a more influential presence in such a distant and harsh region. While the Arctic nations are trying to settle their territorial disputes in the traditional Westphalian international legal way, raising up their own nationalist discourses, the erosion of the Arctic ice and the discover of new potential benefits from it, increased the interest for a multi-party intergovernmental model of governance.

---

<sup>10</sup> See: Jacobsen, M. [11], *op. cit.*, pp. 28–9.

<sup>11</sup> I.e., a polar-class icebreaker costs roughly US\$ 1 billion, just to use it during winter months. Ref. Pincus, R.H. and Ali, S.H. (eds.) [20], *op. cit.*, p. 167.

## 6 The Dichotomic Role of the European Observer Countries

Spain, Germany, Italy, France, the United Kingdom, the Netherlands and Poland were accepted as observer parties, mainly because of their strong and centennial polar scientific research tradition. All of them had exposed their vision and interests in public “White Papers,” in which they indistinctively mention the main dichotomy related to the Arctic: while emphatically assessing the risk of the global warming and asking the whole community to be responsible and to collectively fight against all environmental threats, all European observer countries highlight the other face of the medal, expressing their interest on participating in the different businesses that the global climate change will bring to that region in the near future. This dichotomy is explicitly declared in the title of the German guidelines official document, “*assume responsibility, seize opportunities*,” swinging from environmental protection to geo-economic opportunities (Steinicke 2014). Moreover, that report provide us a clear example to illustrates how deep this tension is enclosed in the official discourse from the top economy in the EU. It declares,

The exploitation of Arctic raw material sources, which is already in progress, can contribute to a more secure supply of energy and raw materials both in Germany and the EU. This in turn creates new opportunities for German companies. Against this background, the Federal Government attaches great importance to the peaceful, environmentally sound and economically sustainable use of raw materials in the Arctic region. This includes establishing high environmental standard and liability for environmental damage. [8]

It is possible to highlight, in the first sentence, that Berlin is underlining how this progress of exploitation has been already “in process”, with the intention to skip the discussion on who is responsible for starting such tragic degradation. Then the text emphasizes two more key ideas: that the benefits are shared with others (“and the EU”) and linking to national security, because Arctic exploitation provides a better alternative to current energy suppliers for Germany. In other words, Germany prefers to obtain energy from the Arctic instead of doing it from Russia. The quote also introduces a counterbalanced opinion while underlining “*against this background*”, which confirms Germany’s commitment to protect a peaceful, environmentally sound and economically sustainable use of raw materials, mostly by establishing high standards and norms to circumscribe exploitation to respect of environmental principles, in particular the precautionary principle.<sup>12</sup> Are you capable to provide with some facts/data – what’s the scale of exploitation/time horizon?

France keeps the same logical structure in its “white paper.” (French National Government (2017). After describing the “great challenge of the Arctic” and stressing the key role of French “scientific research and cooperation”, the text highlights

---

<sup>12</sup>“The government recognizes the importance of managing the Arctic region carefully to ensure global environmental protection using the precautionary principle.” German Federal Government [8], *op. cit.*, 4th par. And this concept is repeated at the 2017 Germany’s Arctic Policy Guidelines document, while it is stressed that the protection of the Arctic environment has to be done “through circumspect and precautionary action”. German Federal Government [9], *op. cit.*, p. 1.

the “economic opportunities” and their importance also in terms of “defense and security” (French National Government (2017).

Spanish strategic vision is more focused on scientific research and fisheries, while supporting the development of a communitarian “Northern dimension” of the EU, in concomitance with the promotion of a “Mediterranean” EU [23], p. 31. Poland is also promoting a more active role and distinctiveness in Arctic affairs, through public diplomacy and supporting research and cooperation, alongside the Arctic policies of the EU [29], pp. 5–6.

Italy shares the same ideological position of its communitarian partners, focusing its interests on scientific research, diplomatic relations within the AC institutional network, awareness-raising projects and international cooperation with the Arctic countries to promote environmental protection, and its intention to share “with all the stakeholders” a “sustainable” offshore exploitation of energy and mining resources. Italy is concerned about the opening of the Arctic sea routes and the risk that this event could bring additional load to the current Mediterranean maritime traffic arriving from Asia through Suez [1].

The Dutch government and its society are worried about the sea level rising as a consequence of the climate change. This is the reason why they are investing in scientific research to tackle down this struggle in the Arctic region, and also promoting environmentally-sound global standards to ensure a sustainable development of economic activities in that area [22], p. 10.

A slightly different vision is presented by the recent British white paper, titled “Beyond the Ice”, which is inspired in the new governmental vision after the Brexit. The UK strategy is based on three pillars. First, the opportunity to project a global influence through the Arctic region. Second, the protection of the local people and the environment, with a specific reference to defence and safety. And third, the promotion of prosperity, thanks to the new trade routes, exploitation of natural resources, connectivity and financial services UK Government [26].

## 7 China’s Policy as a “Near-Arctic” Power

Arctic scenario became a great opportunity for China to exercise its full set of powers based on its new role as a key international actor. Beijing is ready to use its *hard*, *soft* and *sharp powers* in order to protect its strategic projects and its “rights” on scientific research, navigation, over-flight, fishing, laying of submarine cables and pipelines in the high seas and other relevant sea areas in the Arctic Ocean, including rights to resource exploration and exploitation in the area, in accordance with the basic principles of “respect, cooperation, win-win result and sustainability.” [20].

Before its acceptance as an observer, the Chinese government was promoting a 5 year polar plan to increase China’s “status and influence” in Polar Affairs to better protect its interests as a “near-Arctic State”. Chinese government was urging that “an end to the Arctic states’ monopoly of Arctic affairs is now imperative” [5]. And

as soon as China gained a seat at the participants' table in 2013, it signed an agreement with Iceland, representing its first free-trade agreement with an European country. At the same time, Beijing's authorities have also announced the investment of 2 billion dollars in Greenland's mining sector, allowing that autonomous island to become a large exporter of uranium and generating a massive political debate in Denmark [14]. In fact, the export of uranium to China agreed by Greenland is at the crossroads between its own autonomous competences as the only responsible for the extraction of its minerals, and the Danish central administration's security concerns related to uranium as an explosive and radioactive raw material [14]. China's arrival was so massive that the New York Times published an article in 2013 titled: "No, Greenland Does Not Belong to China." [3]. And in China, national media praised its country's strong commitment on the development of the Arctic area, by acting "as an effective member" and "reshuffling the Arctic balance of power in record time" [15]. In fact, the Nordic countries may actually have welcomed China into the Arctic Council in an attempt to counterbalance the power of the USA and Russia. Although there is a threat perception by Western countries involving China's presence in the Arctic, there is no basis for short or middle-term worry because up to date Chinese attitude is fully cooperative, respecting and honoring its role as a truly global power [6], pp. 73–76.

With these first steps in the Arctic region, China has consolidated its image as a new powerful and cooperative regional actor similar with its global presence as a new economic superpower, promoting its project for the development of a "Polar Silk Road" [28] as part of its intercontinental "Silk Road Economic Belt" and the "21st-century Maritime Silk Road". However, this intention to internationally expand the Chinese network of logistic and commercial initiatives is stirring the debate on the real intentions behind Beijing's Arctic strategy. On the one hand, many specialists believe China and Asian states are mostly interested in the economic aspect of the changing Arctic, taking a Machiavellian approach, "favoring expediency over morality" [24], p. 116. On the other hand, it is reasonable to confirm that China wants to be seen as a "responsible major power", thanks to its commitment to cooperate and to create new opportunities for the minor countries in that Region [24]. But also this second option could represent a risk for the fragile Arctic environment, because China could fuel and accelerate the race for exploitation. And Beijing could be tempted to do so not just to obtain economic benefits, but also to show a strong attitude towards Russia and the USA.

## 8 Conclusive Notes

The debate on the fate of the Arctic is now between two *poles* which could be illustrated as two key questions. On the one hand, is this a "cautious evolution" [19], p. 164, a "limited modernization" [10], p. 5, from a once-closed security bastion to an open, still peaceful and integrated part of global economy? Or, in the opposite

way, are we dealing with a *renaissance* of traditional security tensions in a military-strategic sense?

From an economist's point of view, the *Tragedy of the Commons* narrative represents a typical case of market failure. And, with the help provided by the Theory of Games,<sup>13</sup> international society could implement efficient solutions to this struggle by engaging individuals in collective, cooperative and long-term agreements and by sanctioning free riders' attempts to increase individual benefits at the expense of collective welfare and local essential values.

However, this kind of communitarian *ethos* and measures required to avoid the tragedy cannot be enforced in the Arctic scenario without a broad political commitment to move from the traditional international logic, based on disputes among States and the settlement of intergovernmental agreements, to the implementation of much complex and innovative models of governance, with the use of open, multistakeholder and inclusive methods of agenda-setting and decision-making procedures, which ensures de-centered and multi-level fulfillment of their policies and measures in order to achieve more efficient, robust and resilient solutions. However, because of such inhospitable environment, and the consequent absence of a strong Arctic social pressure over the States, combined with the geostrategic and economic importance of the benefits of future exploitation and the increasingly amounts of investment used to obtain them, the Arctic governance might remain strongly locked into the intergovernmental logic.

And this realistic and intergovernmental logic expands its *raison d'être* far beyond the mere economic and political dimensions. It is indeed deeply rooted in a moral struggle regarding our collective behavior as a humankind. The meta-tragedy could represent, in fact, a specific case of *banality of the evil*. While in the famous A. Arendt's description of Eichmann's behavior she determined how an evil macro machinery could fulfill its horrendous aims by using isolated and detached micro-systemic relationships between *banal* means and ends, in the case of our meta-tragedy, the same logic is applied through a paradox: the fate of the Arctic could be already doomed by just letting the international community to cooperate on how to share the profits available from that tragedy.

## References

1. Battistone A (2017) La partita dell'Italia nel 'Grande Gioco' Articolo, in Lindro.it, Dic. 6, 2017. Online: <https://lindro.it/la-partita-dellitalia-nel-grande-gioco-artico/>
2. Binmore K (2007) Game theory. Oxford University Press, Oxford
3. Breum M, Chemnitz J (2013) No, Greenland does not belong to China, in the New York Times – Opinion, Feb. 20, 2013. Online: <https://www.nytimes.com/2013/02/21/opinion/no-greenland-does-not-belong-to-china.html>

---

<sup>13</sup>In particular, an outcome from the prisoner's dilemma and the chicken's game: the collective need to cut incentives for free-riding by regulation and measures to enhance transparency and responsibility and promote cooperative interaction [2].



4. Buzan B et al (1998) *Security. A new framework for analysis*. Lynne Rienner Publishers, Roulder London
5. Baozhi C (2011) Arctic aspirations. *Beijing Review*, Aug. 23, 2011. Online: [http://www.bjreview.com/quotes/txt/2011-08/23/content\\_385389\\_2.htm](http://www.bjreview.com/quotes/txt/2011-08/23/content_385389_2.htm)
6. Danner LK (2018) China's grand strategy. In: *Contradictory foreign policy?* Palgrave Macmillan, Cham
7. Di Liddo M, Manenti F (2017) Competizione tra Stati e corsa alle risorse: la geopolitica dell'Artico. *CESI Centro Studi Internazionali*, Jan. 2017. Online: <http://www.parlamento.it/application/xmanager/projects/parlamento/file/repository/affariinternazionali/osservatorio/approfondimenti/PI0124App.pdf>
8. German Federal Foreign Office (2013) Germany's arctic policy guidelines. Assume responsibility, seize opportunities. Online: [https://www.arctic-office.de/fileadmin/user\\_upload/www.arctic-office.de/PDF\\_uploads/Germanys\\_Arctic\\_policy\\_guidelines.pdf](https://www.arctic-office.de/fileadmin/user_upload/www.arctic-office.de/PDF_uploads/Germanys_Arctic_policy_guidelines.pdf)
9. German Federal Government (2017) Germany's arctic policy guidelines. Online: [https://www.arctic-office.de/fileadmin/user\\_upload/www.arctic-office.de/PDF\\_uploads/Germanys\\_Arctic\\_policy\\_guidelines.pdf](https://www.arctic-office.de/fileadmin/user_upload/www.arctic-office.de/PDF_uploads/Germanys_Arctic_policy_guidelines.pdf)
10. Heininen L (ed) (2016) *Future security of the global Arctic. State policy, economic security and climate*. Palgrave Macmillan, London
11. Jacobsen M (2013) *The development of the Arctic Security Discourse. From securitisation of sovereignty to desecuritisation and governance*. The University of Westminster, London. Online: <http://www.martinbreum.dk/wp-content/uploads/2014/09/The-Development-of-the-Arctic-Security-Discourse-Marc-Jacobsen.pdf>
12. Lubin G (2011) Map of the day: the world water crisis, en *Business Insider*, 22/03/2011. <https://www.businessinsider.com/water-crisis-2011-3?IR=T>
13. McMillan M et al (2016) A high-resolution record of Greenland mass balance. *Geophys Res Lett*, Jun. 16 2016. Online: <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2016GL069666>
14. Mehta A (2018) How a potential Chinese-built airport in Greenland could be risky for a vital US Air Force base. *Defense News*, Sept. 7, 2018. Online: <https://www.defensenews.com/global/europe/2018/09/07/how-a-potential-chinese-built-airport-in-greenland-could-be-risky-for-a-vital-us-air-force-base/>
15. Mered M (2013) How China became an 'Arctic state'. *Beijing Review*, May 23rd, 2013. Online: [http://www.bjreview.com.cn/quotes/txt/2013-05/17/content\\_543413.htm](http://www.bjreview.com.cn/quotes/txt/2013-05/17/content_543413.htm)
16. Minter A (2018) Fears of China's Arctic takeover are overblown. *The Straits Times*, Feb. 7, 2018. Online: <https://www.straitstimes.com/opinion/fears-of-chinas-arctic-takeover-are-overblown>
17. NASA (2013) Space debris and human spacecraft. NASA's website, Sept. 27, 2013. Online: [https://www.nasa.gov/mission\\_pages/station/news/orbital\\_debris.html](https://www.nasa.gov/mission_pages/station/news/orbital_debris.html)
18. National Snow & Ice Data Center (2016) 2015 in review, Jan. 5, 2016. Online: <http://nsidc.org/arcticseaicenews/2016/01/>
19. Pincus RH, Ali SH (eds) (2015) *Diplomacy on ice. Energy and the environment in the Arctic and Antarctic*. Yale University Press, New Haven
20. PRC (2018) China's Arctic Policy, White paper elaborated by the State Council Information Office of the PRC, Jan. 2018. Online: [http://english.gov.cn/archive/white\\_paper/2018/01/26/content\\_281476026660336.htm](http://english.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm)
21. Sakhuja V, Narula K (eds) (2016) *Asia and the Arctic. Narratives, perspectives and policies*. Springer, Singapore
22. Schulze VG (2017) Arctic strategies round-up. German Arctic Office at the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research. Online: [https://www.arctic-office.de/fileadmin/user\\_upload/www.arctic-office.de/PDF\\_uploads/Arctic\\_Strategies\\_EN\\_10.11.17.pdf](https://www.arctic-office.de/fileadmin/user_upload/www.arctic-office.de/PDF_uploads/Arctic_Strategies_EN_10.11.17.pdf)

23. Spanish Government (2017) Guidelines for a Spanish polar strategy, Ministry of Science, Innovation and University. Online: [http://www.ciencia.gob.es/stfls/MICINN/Investigacion/FICHEROS/Comite\\_Polar\\_definitivo/Directrices\\_estrategia\\_polar\\_espanola.pdf](http://www.ciencia.gob.es/stfls/MICINN/Investigacion/FICHEROS/Comite_Polar_definitivo/Directrices_estrategia_polar_espanola.pdf)
24. Tonami A (2016) Asian foreign policy in a changing Arctic. The diplomacy of economy and science at new Frontiers. Palgrave Macmillan, London
25. UK Parliament (2009) Deforestation. Postnote, October 2009, n. 344, Parliamentary Office of Science and Technology. Online: <https://www.files.ethz.ch/isn/109095/postpn344.pdf>
26. United Kingdom – Foreign and Commonwealth Office (2018) Beyond the Ice – UK policy towards the Arctic. Polar Regions Department. Online: <https://www.changing-arctic-ocean.ac.uk/wp-content/uploads/2018/04/beyond-the-ice-uk-policy-towards-the-arctic.pdf>
27. WWF (2015) Over 80% of future deforestation confined to just 11 places, publicado en PHYS. Online: <https://phys.org/news/2015-04-future-deforestation-confined.html>
28. Xinhuanet (2018) China publishes Arctic policy, eyeing vision of ‘Polar Silk Road’. Online: [http://www.xinhuanet.com/english/2018-01/26/c\\_136926357\\_2.htm](http://www.xinhuanet.com/english/2018-01/26/c_136926357_2.htm)
29. Zaborowski M et al (2015) Poland’s Policy towards the Arctic: Key Areas and Priority Actions. PISM Policy Paper 11(113), may 2015. Online: [https://www.pism.pl/files/?id\\_plik=19746](https://www.pism.pl/files/?id_plik=19746)

**Pablo A. Mazurier**, Ph.D. in Politics, Human Rights and Sustainability (Sant’Anna School of Advanced Studies (Pisa, Italy, 2018). He has experience as researcher at the Institute of European Studies (ULB – Free University of Bruxelles) and at the King’s College London (2017).

**Juan José Delgado-Morán** did his Ph.D. at Universidad Católica of Murcia (UCAM) and is Lecturer in Security and Defense Member of the Nebrija-Santander Global Chair in Risk and Conflict Management.

**Claudio A. Payá-Santos** Ph.D is a Member of the Nebrija-Santander Global Chair in Risk and Conflict Management. and Responsible of the Degree of Security at Nebrija University. Visiting fellow of Florence and Luiss Guido Carli Universities, Roma.