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Five factors that will decide the future of Antarctica

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ABSTRACT


Five factors that will eventually lead to political–legal changes in the Antarctic Treaty System are analysed. The increase in membership, heterogeneity and asymmetry of the states that are part of it, including the seven claimants, has produced substantial changes in the political equilibrium of this international regime. The pressure to internationalise Antarctic governance puts stress on the relationship between “traditional” and “new” Antarctic countries. It is a scenario where the importance of sovereignty and the influence of the claimant states are greater than is normally assumed in the public discourse. The new uses of, and economic and strategic interests in Antarctica have also had an important effect on the evolution of this international regime. The purpose of this article is to promote prospective studies about all these topics. It is necessary to think about the future of Antarctic governance to ensure that strategic decisions are taken at the appropriate time, so that the objectives of the Antarctic Treaty System can be achieved. The task of thinking about Antarctic futures must be faced with a multidisciplinary vision.

KEYWORDS

Antarctic Treaty System; political–legal challenges; antarctic treaty consultative meetings; internationalisation; sovereignty; resources

Introduction

The international system by which Antarctica is governed is changing. The regime created by the Antarctic Treaty (1959, in force 1961) evolved from the geopolitics of the cold war and international scientific cooperation (International Geophysical Year 1957–1958). It grew to address the sustainable exploitation of resources, and has in recent years given primacy to the issue of environmental protection. However, this evolution is part of a larger process, which began many centuries before Antarctica was really discovered, and it is a process that continues to develop today.¹ Awareness of this progression makes one reflect on the factors that could change the current political–legal scenario. This will allow us to anticipate new realities, make the necessary strategic decisions, guide efforts towards the international community’s objectives, and promote more coherent national Antarctic policies. It is not enough for those responsible for political leadership of the Antarctic system

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¹For more on Antarctic history and the development of the Antarctic Treaty System, see Ferrada, “Evolución del Sistema del Tratado Antártico,” and Ferrada, “Iniciativa privada y estatal” and the bibliography there cited.

to acknowledge existing challenges: without appropriate and timely responses, there will be negative consequences.²

The determination of future Antarctic scenarios is an intriguing but complex intellectual exercise. The future is always hypothetical, multiple and indeterminate. One has to narrow down the “possible” scenarios, which are limitless, and address the most “probable” ones to spell out feasible futures. Despite the difficulties, futures scenarios are something that must be considered, in order to ensure appropriate decisions are made. The more people (including researchers, diplomats and the public) engage with the area, the more nuanced discussions can become.

When it comes to addressing Antarctic futures, there are collective works that identify the lines of scientific research of greater interest for the future,³ proposals for medium-term strategic plans,⁴ and a handful of academic papers that briefly address the political⁵ or environmental⁶ challenges. Liggett’s recent paper outlines four possible future scenarios,⁷ while Abdel-Motaal has called on readers to think of the history of the colonisation and exploitation of the continent and to follow the Arctic example (with the Svalbard Treaty of 1920 acting as primary example) as a solution for current and future Antarctic problems.⁸ Wang, on the other hand, urges a rethink of the mineral exploitation ban.⁹ Although there are isolated examples of scholars engaging with the topic of Antarctic futures, in general terms, prospective political–legal studies are largely something yet to do, and the area deserves closer attention.

Having maintained peace in the Antarctic in absolute terms, the Antarctic Treaty must be considered “one of the most successful multilateral agreements negotiated in the entire twentieth century”.¹⁰ Arguably, however, expressions of pride about its past have hindered political–legal reflection on its future. Some writers, such as Chown, are sceptical about the ability of the Antarctic Treaty System (ATS), as currently constituted, to address present challenges.¹¹ Others defend its adaptability to new international circumstances as its ongoing history proves.¹² The counter argument to this is that the past does not predict the future.¹³

Discussion of future scenarios at Antarctic Treaty Consultative Meetings (ATCMs) can seem rather abstract and akin to a parlour game. However, in more explicitly economic areas, such as the Commission for the Conservation of Antarctic Marine Living Resources Convention (CCAMLR) (1980, in force 1982), future scenarios are “live” and discussions are considerably more animated. The challenges faced whilst securing international agreement for a Ross Sea Marine Protected Area (MPA) (for at least 35 years from December 2017)

²Chown, “Challenges to the future conservation.”

³Summerhayes, “The next 100 years”; Kennicutt, “Polar research: Six priorities,” 23–25; SCAR, “A roadmap for Antarctic”; SCAR, “A View beyond the Horizon”; Kennicutt, “A roadmap for Antarctic.”

⁴Australian Government, *20 Year Australian Antarctic Strategic Plan*.

⁵Joyner, “Potential challenges”; Figueroa, “La Antártica como escenario de cooperación”; Hemmings, “Antarctic politics,” 514–517.

⁶Tin, “Antarctic futures.”

⁷Liggett, “Is it all going south?”

⁸Abdel-Motaal, *Antarctica*.

⁹Wang, *International Law on Antarctic Mineral Resources*.

¹⁰Joyner, “Potential challenges,” 101.

¹¹Chown, “Challenges to the future conservation.”

¹²Haward, *Jabour and Press, “Antarctic Treaty System.”*

¹³Chown, “Antarctic Treaty System.”

are indicative of how contested living resource management can be, both now and in the future.¹⁴ Parties did eventually agree on the MPA proposal, but consent was only secured by including a sunset clause that outlined an end date for the MPA. In other words, parties such as China and Russia were not prepared to sign up to an open-ended MPA proposal. This was not a future they were willing to contemplate.

It is impossible to propose one single future scenario for Antarctica in thirty, fifty or one hundred years from now. This paper highlights certain elements that may be fundamental in determining the most likely scenarios and the challenges they pose. This paper's objective, then, is to stimulate debate and promote more explicit forward thinking.

Factors that could cause change in current scenarios

The ATS has been successful in the peaceful co-administration of the southernmost continent. Despite its achievements in regulating the exploitation of resources and in environmental protection, and although no-one predicts its collapse, there is evidence of instability and tension within and beyond this international regime.¹⁵ Perhaps these are indicators of change. The transition to new Antarctic political–legal scenarios will be conditioned by the evolution of the following five factors: heterogeneity amongst states that participate in this international regimen; pressure to internationalise Antarctic governance; the unresolved topic of sovereignty; the growing politicisation of Antarctic technical–scientific discussions; and finally, the probable necessity to exploit Antarctic resources more intensively.

Other authors have considered different factors or drivers for future change in the Antarctic. Joyner, for example, highlights several key issues: the possibility of conflict between claimant and non-claimant states over access to offshore hydrocarbon resources; unregulated activities related to commercial bioprospecting; political tensions arising between Japan and Australia over the Japanese practice of lethal whaling; and climate change.¹⁶ Hemmings, meanwhile, emphasises climate change; the growth and diversification of Antarctic resources and other commercial activities; the probable need to revisit the Antarctic mineral resources question; issues of jurisdiction and territorial sovereignty; and regime legitimacy and function.¹⁷ A third study, led by Liggett, identifies global environmental and socio-economic trends; potential shifts in the ATS; changes in Antarctic research; and the impacts of Antarctic tourism activities.¹⁸

In comparison to these works, this paper has three main differences. First, it articulates the political, legal and economic challenges to the future of Antarctic governance. Secondly, it elaborates further on each of the five factors identified above. Thirdly, this paper positions itself as the initial step within a broader and more extensive multidisciplinary academic framework, designed to propose possible approaches to addressing a range of these future challenges. Its aim is precisely to provoke a broad discussion about these Antarctic futures.

¹⁴For more on the discussions held before October 2016, see CCAMLR Commission, *Report of the thirty-fourth meeting of the Commission*, 46–68. The MPA was adopted in 2016 by Conservation measure 91–05; see CCAMLR Commission, *Report of the thirty-fifth meeting of the Commission*, 39–58.

¹⁵Dodds and Hemmings, "Britain and the British Antarctic Territory," 1432.

¹⁶Joyner, "Potential challenges."

¹⁷Hemmings, "Antarctic politics."

¹⁸Liggett, "Is it all going south?"

Heterogeneity

The ATS has always been a complex regime made up of claimants, those with a basis to claim, non-claimants, and consultative and non-consultative parties. Greater progressive heterogeneity and asymmetry of interests and difference in political and economic stature among participating states have complicated its operation and the decision-making processes since the Treaty came into force. Figure 1 shows the increase in the Antarctic Treaty Parties to date.

The most varied cultural worlds are represented at ATCMs, from predominantly western Christian nations (in Latin America and Europe), to Confucian–Buddhist–Taoist (China) and Muslim (Pakistan) countries. Their political, economic, social and legal systems have an equally pronounced asymmetry. This diversity implies significant complexities, especially considering that agreements must be reached by consensus.

From 1961 to 1994, the provisions adopted at ATCMs were called “Recommendations”, which subsequently had to be “approved” by states to be legally binding (article IX.4 of the Antarctic Treaty), in a process that could take many years. From 1995, a distinction was made between: (1) “Measures”, with the same approval requirement; (2) “Decisions”, internal regulations in force on their adoption; and (3) “Resolutions”, or exhortatory texts. The Protocol on Environmental Protection to the Antarctic Treaty (Madrid Protocol) (1991, in force 1998) stipulated that amendments to its annexes were to be agreed by a “Measure” but with a “tacit approval” procedure, which comes into force one year after adoption unless an extension or impediment report is required. In 2002, Annex V of the Protocol entered into force, which provided that “Measures” on plans for the management of protected areas or designation of historical sites would enter into force ninety days after adoption. The mandatory effect of different kinds of “Measures” is the same, although they differ in the way they enter into force.

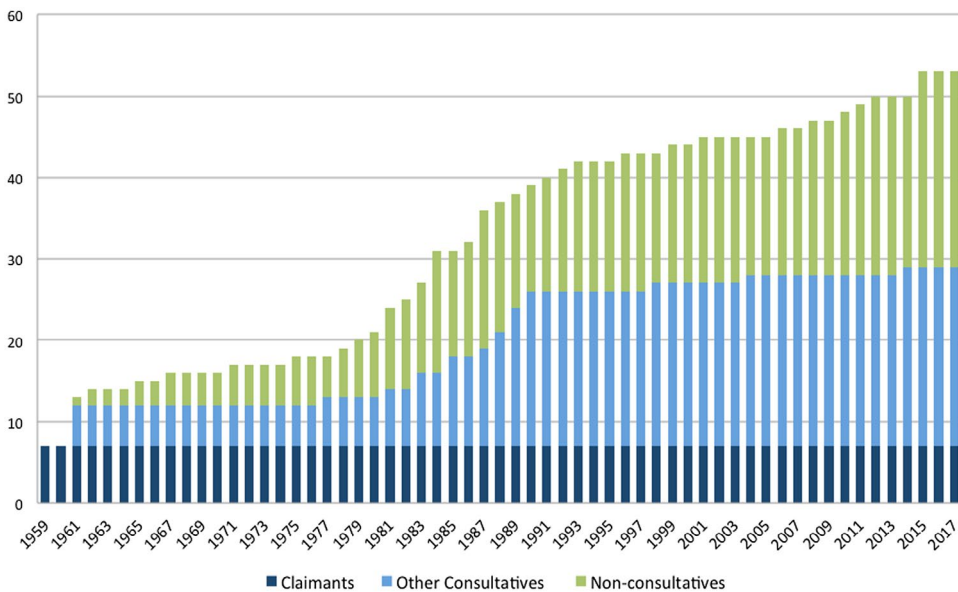
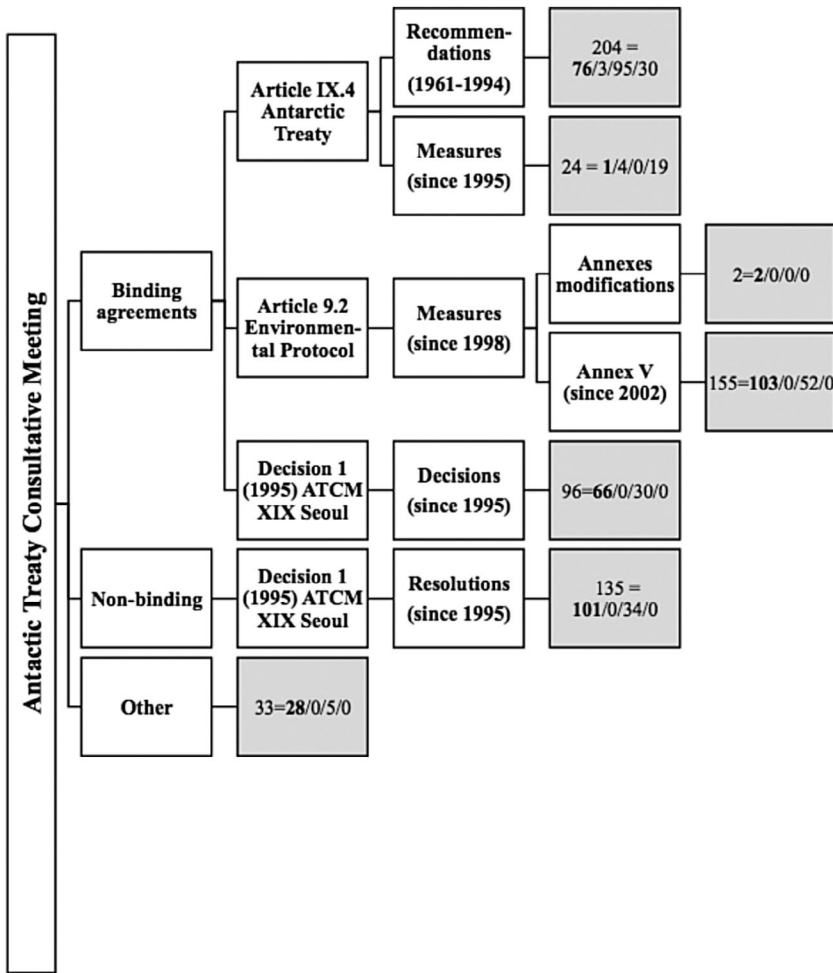


Figure 1. Antarctic Treaty Parties 1959–2017. Data Source: Antarctic Treaty Depository (United State Government). Graphic made by the author (October, 2017).

As can be seen in Figures 2, 3 and 4, binding agreements on non-environmental aspects adopted at ATCMs have declined almost absolutely since the beginning of the twenty-first century. It could be argued that those Measures regarding management plans and historic sites have only entered into force because of the special procedure in place for adopting them.

This relative paralysis of the regulatory capacities of the ATCMs, coupled with low participation in intersessional working groups, is a sign of the difficulty of reaching agreements between parties with interests and visions that are often too far apart. According to Hemmings:

Formally, everything is as before, but for the first time since the beginning of this regime in the 1950s, several decades have passed without substantive legal instruments being developed within the ATS. Meanwhile, human activity continues to intensify.¹⁹



Total = In force/ Not yet in effect / No longer in effect / expire without entry in force

Figure 2. Agreements adopted at ATCM 1961–2017. Data Source: Antarctic Treaty Depository (United State Government) and Antarctic Treaty Secretariat, with some amendments by the author. Graphic made by the author (October, 2017).

¹⁹Hemmings, "Antarctic politics," 509–510.

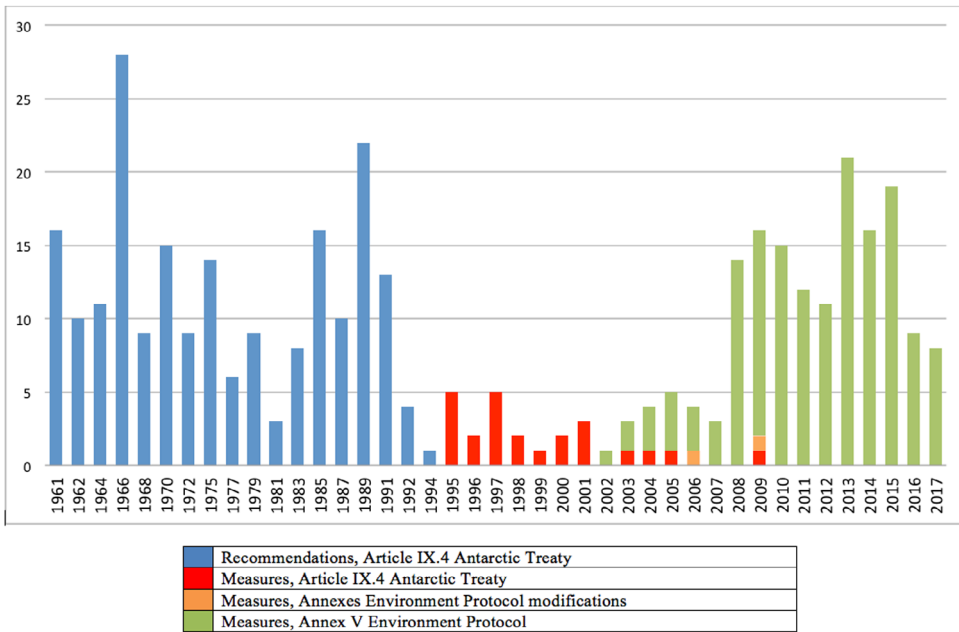


Figure 3. Total of binding agreements adopted at ATCM 1961–2017, per year, per type. Data Source: Antarctic Treaty Depository (United State Government) and Antarctic Treaty Secretariat, with some amendments by the author. Graphic made by the author (October, 2017).

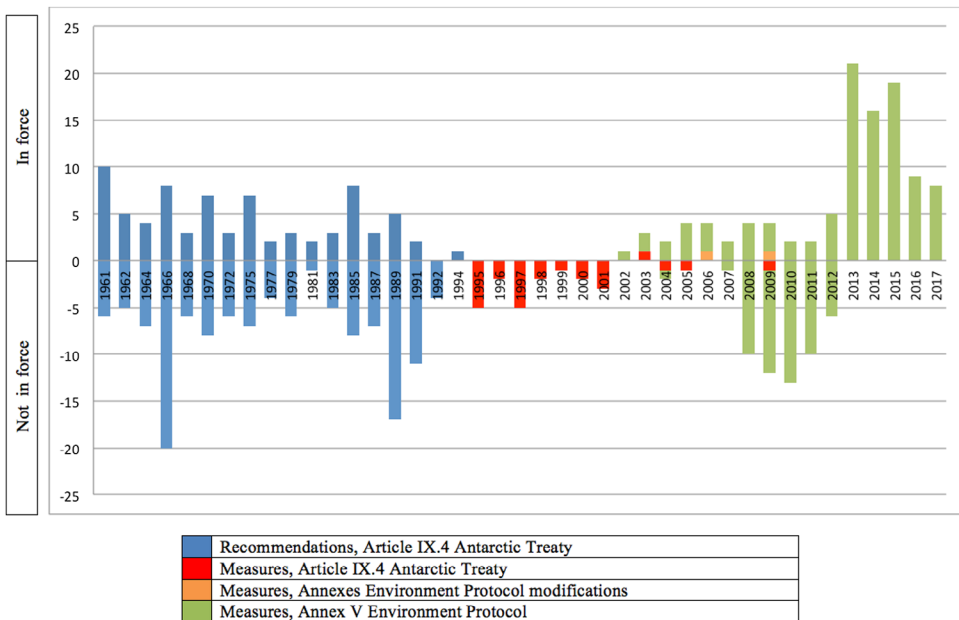


Figure 4. Total of binding agreements adopted at ATCM 1961–2017, per year, per type, in force/not in force. Data Source: Antarctic Treaty Depository (United State Government) and Antarctic Treaty Secretariat, with some amendments by the author. Graphic made by the author (October, 2017).

It is possible to argue that this is a reflection of the fact that the system has enough flexibility to allow parties to continue to work together without the need to innovate. Or, in the same sense, that there is scope under “consensus” to simply avoid more contentious issues becoming disputes. However, it is clear that in environmental protection and other areas of Antarctic activities it is necessary to develop new and broader legal instruments (for example, on liability or about tourism or commercial bioprospecting), and that to date it has not been possible to bring these to fruition.

In order for the regulations adopted in ATS forums to be enforced effectively, the regulations need to be implemented in the Parties’ domestic laws. The diversity of legal systems involved, as well as the large number of provisions, leads to a complex approval process and a sometimes-ineffective practical application.

There is wide participation in the ATS meetings. They are essentially inter-state forums but observers or experts, including international organisations, trade organisations and NGOs, have been allowed to attend. Such parties cannot participate in decision-making but do have the right to intervene and present documents and exert influence in the whole political process. Regional bodies, such as the European Union (EU), which participates in the fisheries regime and would be interested in expanding its action in other forums,²⁰ or the Union of South American Nations, have also shown interest in participating.²¹

This growing heterogeneity has taken place in a context of global geopolitical changes in which some states have become more relevant in recent decades to Antarctic matters. Brazil, China, South Korea, India and Malaysia, among others, have all challenged the more “traditional” states. The latter have sought to increase their capabilities rather than reinforce the historical values of the ATS.²² In short, the increase in relevant players and their effects on rule-making procedures have complicated the ATS, and this is likely to continue. This situation includes the relevant participation of private entities, like NGOs and advocacy groups.

CCAMLR meetings (articles IX.1.f and IX.2) are the other forum with regulatory powers. Each year CCAMLR adopts “Conservation Measures” for the preservation and management of fisheries in the Southern Ocean. From 1982 to 2017, 559 “Conservation Measures” were adopted, of which seventy are currently in force. The majority of these are a kind of “fishing quota”. They are binding from 180 days after their adoption (article IX.6.b), in October or November of each year and hence they are not legally binding in the following summer season. “Resolutions”, which are *soft law* regulations, are also adopted. There is also a procedure to hinder compliance (articles IX.6.c and IX.6.d) and a special situation with some areas north of the sixtieth parallel, where CCAMLR applies but jurisdiction of the coastal states does as well. All this makes the Conservation Measures less effective and complicates the CCAMLR regime’s function and the ATS governance as a whole.

Internationalisation

Malaysia viewed the ATS as a restricted club during the 1980s,²³ and there is a clear risk that it will be perceived this way again in future. Figure 5 shows which states of the world

²⁰J. diens, *Gateway Antarctica*; Vanstappen and Wouters, “The EU and the Antarctic.”

²¹Consejo de Defensa Suramericano, *Planes de Acción 2012, 2013 and 2014*.

²²Hemmings, “Antarctic politics,” 510–513.

²³Tepper and Haward, “The development of Malaysia’s position.”

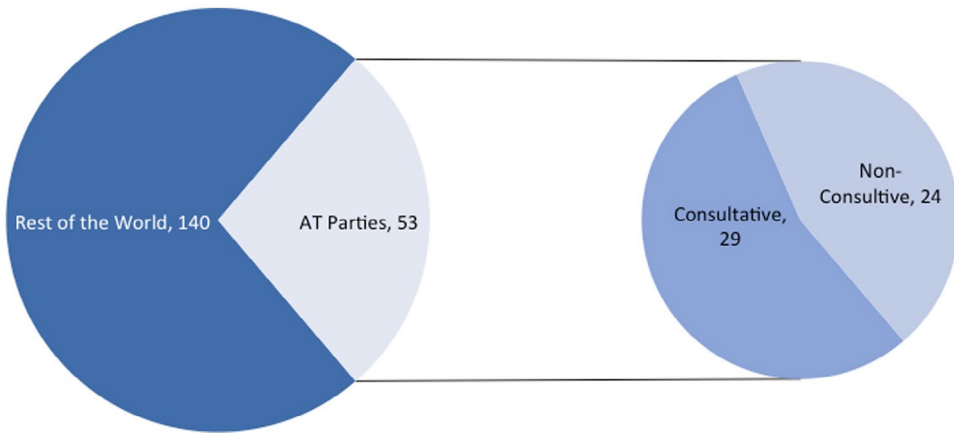


Figure 5. Antarctic Treaty Parties and the rest of the world. Data Source: Antarctic Treaty Depository (United State Government). Graphic made by the author (October, 2017).

participate in the ATS. In geographical distribution, there is also an important asymmetry between continents and between hemispheres, as Figures 6 and 7 show. A similar trend can be seen in the other ATS agreements, with the case of CCAMLR being particularly relevant, both for EU participation and as the forum for discussion on the exploitation of fisheries resources in the Southern Ocean. Only 12 per cent of UN members decide on this, a percentage that rises to 21 per cent if states represented by the EU that are not independently part of CCAMLR are taken into account.

This idea of a restricted club should, however, be qualified due to the population, GDP and political stature and influence in global affairs of states with Antarctic interests. A comparison between Antarctic states and the rest of the world is shown in Figures 8 and 9. The Antarctic Treaty parties represent 66 per cent of the whole world population and Consultative Parties account for 58 per cent. In the same way, 86 per cent of the world's GDP is produced by the Antarctic Treaty parties, and 77 per cent is produced by the Consultative Parties.

The five permanent members of the United Nations Security Council are Consultative Parties to the Antarctic Treaty. Considering their huge influence in contemporary international relations, this level of participation is a relevant indicator. In comparative terms, not all of them are part of the United Nations Convention on the Law of the Sea (UNCLOS), nor do they have a similar level of involvement in the Arctic Council.

Although the ATS has been open to receiving suggestions from other states, international entities and NGOs, the growing awareness of its importance, together with the imbalances mentioned, means that the debate on the “internationalisation” of Antarctica has been more or less permanent. Examples of this include the UN's attempts to “meddle” in these issues – which until now have been resisted²⁴ – and the idea of the Antarctic as a “common heritage of mankind”,²⁵ although the latter is totally incompatible with article IV of the Antarctic Treaty. In the light of the internationalisation debate, the recent approval and

²⁴Díaz and Villamizar, “Uso pacífico de la Antártica,” 27–28; Beck, “Antarctica and the United Nations.”

²⁵Rosencranz, “The Origin and Emergence,” 311; Wolfrum, “Common Heritage of Mankind”; Haase, Lamers and Amelung, “Heading into uncharted territory?”

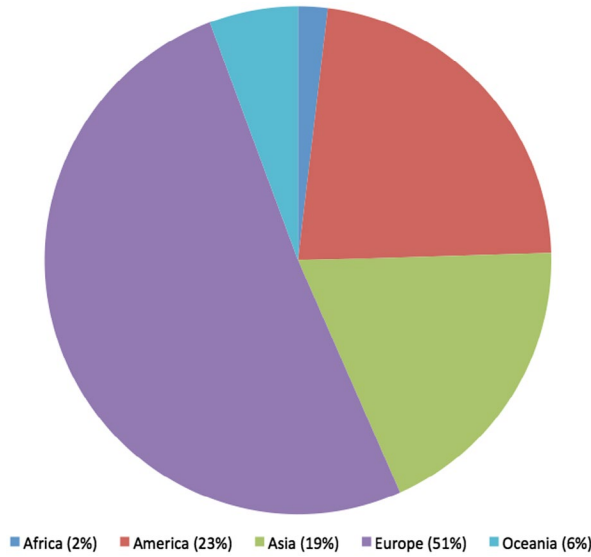


Figure 6. Geographical distribution of Antarctic Treaty Parties. Graphic made by the author (October, 2017).

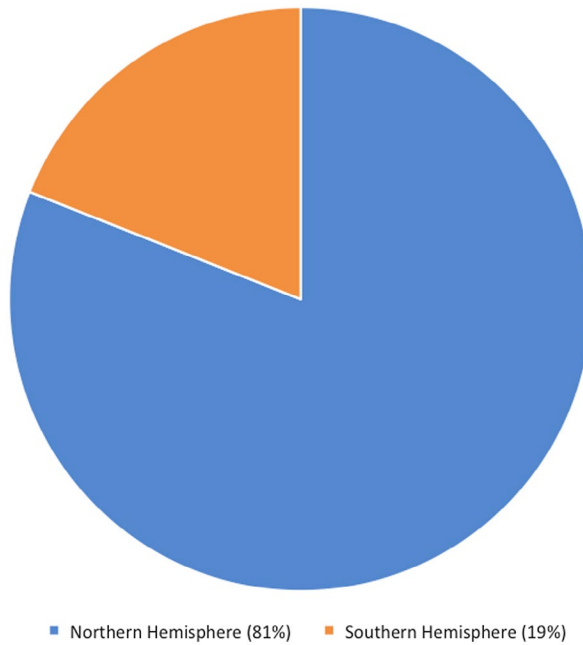


Figure 7. Hemispherical distribution of Antarctic Treaty Parties. Graphic made by the author (October, 2017).

entry into force of the International Maritime Organization (IMO) Polar Code should also be considered. The Polar Code has meant that the Antarctic Treaty parties have lost their position as the highest authority governing what happens with navigation south of the 60th parallel. In addition, there are states, such as Chile, that are influential in the ATS, but they

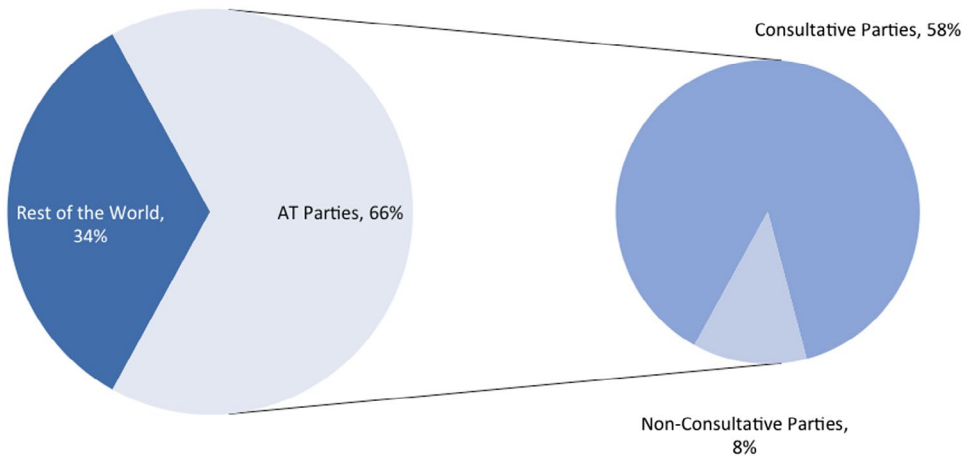


Figure 8. Population of Antarctic Treaty Parties and the rest of the world. Data Source: Union Nations Statics Division. Graphic made by the author (October, 2017).

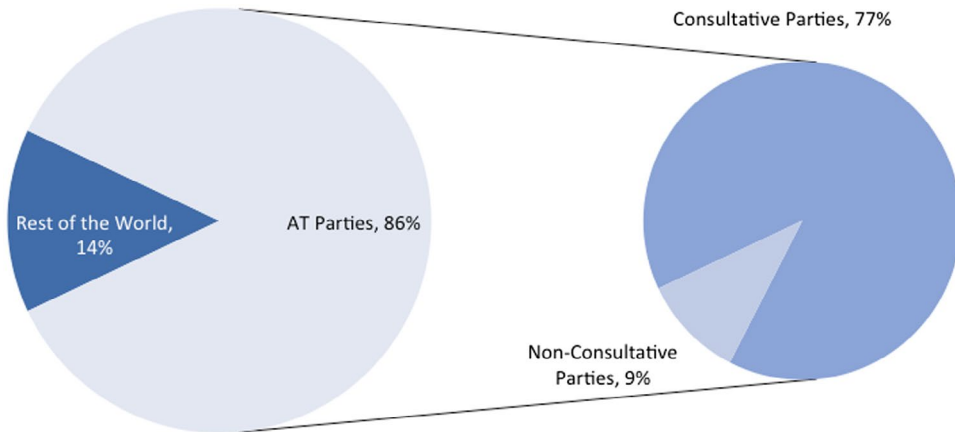


Figure 9. GDP of Antarctic Treaty Parties and the rest of the world. Data Source: Union Nations Statics Division. Graphic made by the author (October, 2017).

are not so relevant in the IMO, so the Polar Code adoption also represents a loss of relative political influence for them.

This loss of influence should give the Antarctic Treaty parties pause for thought. The need to approve technical guidelines for Antarctic navigation and to exercise greater control over ships of all flags has been highlighted since at least 2003, yet formal negotiations about the issue have never started. The lack of meaningful progress has made this regulatory “internationalisation” possible, as the IMO stepped in to fill the gap.

If ATS parties are not proactive in the co-management and environmental preservation of Antarctica, this regime will be subject to criticism and attempts to change it over and again. A constructive and forward-looking attitude in the administration of the southern continent which takes into account the “interest of all humanity”, as the preamble to the Antarctic Treaty states, is what legitimises the legal position of the Consultative Parties.

Sovereignty

Sovereignty is a contested issue in the Antarctic, with claimant and non-claimant nations taking different views of the continent's status. Although Article IV of the Antarctic Treaty suspended controversies about territorial sovereignty by putting claims to one side, it did not solve them.

Sustaining the sovereign rights of Argentina, Australia, Chile, France, New Zealand, Norway, and the United Kingdom was an essential condition for negotiating the Antarctic Treaty in 1959 (as article IV shows). The legal position of the claimant nations was restated in 1972, 1980, 1988, 1991 and 2005, as each new ATS convention was adopted. These include explicit references to article IV, and there are multiple other references to sovereignty in the reports from the ATCMs.

Decisions are taken by consensus at ATCMs. In other words each consultative state, including the claimants, has an implicit *right to veto*. However, in 1959 there were 7 claimants out of 12 Antarctic Treaty parties and today there are 7 of 53 parties, or 7 of 29 consultative parties. Together they maintain enormous weight and influence in Antarctic issues thanks to their political, scientific and operational work. In fact, the 1959 signatories and, in particular, the 7 claimants largely retain the governance of Antarctica.²⁶

Punta Arenas (Chile) and Ushuaia (Argentina) are the most important Antarctic gateway cities to national scientific programs and tourism, respectively.²⁷ Chile considers its Antarctic territory as a part of its *Región de Magallanes y la Antártica Chilena* and Argentina sees its own claim as a part of its *Provincia de Tierra del Fuego, Antártida e Islas del Atlántico Sur*. The United Kingdom has a complex legal-administrative relationship with the polar territory it claims, which has a formally autonomous government (although it is based in London) with its own legislative and judicial powers.²⁸ Norway, which may not appear to strongly defend its Antarctic sovereignty rights,²⁹ applies Norwegian private law, criminal law and procedural law in its Antarctic territory,³⁰ and in 2013 it established jurisdiction over nationals and foreigners present there.³¹ Australia has also put its territorial regulations into effect and is especially known for applying them to Japanese whalers hunting in Antarctic waters.³² Japan's refusal to recognise its authority was one of the foundations of the case before the International Court of Justice,³³ which upheld the questionability of the scientific value of this hunting.³⁴ Friction between Australia and Japan over Antarctic whaling, however, was kept out of the ATS, in part because whaling is formally addressed by the International Whaling Commission (IWC). The political tension arising between

²⁶Hughes and Grant, "The spatial distribution," 42.

²⁷Salazar, "Five cities"

²⁸Hendry and Dickson, *British Overseas Territories Law*, 299–301; U.K. Government, "British Antarctic Territory."

²⁹Orrego Vicuña, *Derecho Internacional de la Antártida*, 36.

³⁰Rognhaug, *Norway in the Antarctic*, 23.

³¹Norway. "Regulations relating to the protection of the environment" 26 April 2013 No. 412 relates to the protection of the environment and safety in Antarctica (Antarctic Regulations).

³²See *Humane Society International Inc. v Kyodo Senpaku Kaisha Ltd.* [2008] FCA 3, NSD 1519 OF 2004. For more about this case, see McGrath, "Australia can lawfully stop whaling"; Dodds, "Governing Antarctica," 114. For further analysis about this case's effects in Antarctic political balance, see Davis, "Enforcing Australian law"; Anton, "Australian Jurisdiction"; Anton, "False Sanctuary"; Anton, "Antarctic Whaling"; Triggs, "The Antarctic Treaty System," 45–46.

³³International Court of Justice "Whaling in the Antarctic." For more information about the case, see Nagtzaam, "Righting the Ship"; Payne, "Australia v. Japan"; Rolland, "Whaling in the Antarctic"; Rothwell, "The Whaling Case"; Clapham, "Japan's whaling"; Mbengue, "Between law and science"; McCahey and Cole, "Human(e) Science"; Scovazzi, "Between law and science"; Villamizar, "Comentarios a la sentencia."

³⁴IWC, Resolutions N° 2005–1 and N° 2007–1. See Rothwell and Stephens, "The Regulation of Southern Ocean Whaling," 4–7.

these states, which are both Consultative Parties, is, however, a potential challenge to the consensual integrity of ATS.³⁵

Due to the contemporary focus on the environmental approach to the Antarctic, which is in itself of common interest, the idea of claims has caused certain “noises”. That their position is threatened would be a bitter pill to swallow for the claimant states, but their relative political power has declined and it will not be possible to them to stop the political Antarctic evolution. This is despite the fact that pressure to “internationalise” Antarctica could lead to the rebirth of the geostrategic risks avoided in 1959. Good intentions can be dangerous and the administration of collective things can be inefficient, as Aristotle stated.³⁶ Similarly, in Hardin’s seminal work, he warns of the “tragedy of the commons”.³⁷ In relation to the Madrid Protocol, this could mean that if no state is able or legitimated to control what happens on the continent or in certain areas of it, the uncontrolled human activities could lead to major environmental damage.

In Antarctic forums, there is little talk about the claimants because it appears unnecessary and potentially provocative. Perhaps it is understood that: “The more powerful the power, the greater the secrecy. When you have deliberately to make your point, [it is because] you are already weakened”.³⁸ If it seems pertinent for nations to stress their position,³⁹ it is possibly because today they worry the claims could look tenuous. Claimant nations continue to worry about threats to their sovereignty.

There are some scholars, such as Hemmings, who believe that the maintenance of territorial claims “is totally ridiculous nowadays” and that “they are ATS *zombies*”.⁴⁰ However, it is possible to counter this position with the old Spanish-French refrain: “The dead you kill are in fine health”. In fact, all claimant states continue to uphold their positions in relation to their Antarctic territorial claims. As explained below, they are still relevant actors in political, scientific and operational aspects of Antarctic governance and activities.

Sovereignty can be performed through maintaining a presence in the Antarctic, and highlighting ongoing projects and findings. There are three claimant bases for each non-claimant, as Figure 10 shows, and the two countries with the greatest number of bases are claimants. The seven claimants deploy almost twice as many personnel in Antarctica as the sum of all other Antarctic programs.⁴¹ In almost any area of Antarctic activity, the “G7 + 2” (the claimants plus the United States and Russia) are the most relevant countries. Among the 82 states with relevant Antarctic scientific publications (1980–2004), the 7 claimants are among the top 21. Of the 10 states with the most effective presence, half are claimants.⁴² Countries such as Chile quadrupled the annual average of indexed publications from 2000–2014.⁴³ From 1992 to 2010, the “G7 + 2” exerted most influence on the ATS,⁴⁴ and they have had the most active participation in ATCMs – the great driving force in the ATS – from 1998 to 2011, though they have not always pursued the same objectives.⁴⁵ The ratio between

³⁵Joyner, “Potential challenges,” 99–100.

³⁶Aristóteles, *Política*, 51.

³⁷Hardin, *The Tragedy of the Commons*; For an argument against Hardin, see Ostrom, *El gobierno de los bienes comunes*.

³⁸Han, *Sobre el poder*, 9.

³⁹See, for example, Dodds, “Sovereignty Watch.”

⁴⁰Hemmings, “Antarctic Politics,” 516.

⁴¹COMNAP, “Antarctic Facilities List 31 March 2017.”

⁴²Dastidar, “National and institutional productivity.”

⁴³INACH, “PROCIEN 2014,” 22.

⁴⁴Dudeney and Walton, “Leadership in Politics and Science.”

⁴⁵Sánchez, “A brief analysis.”

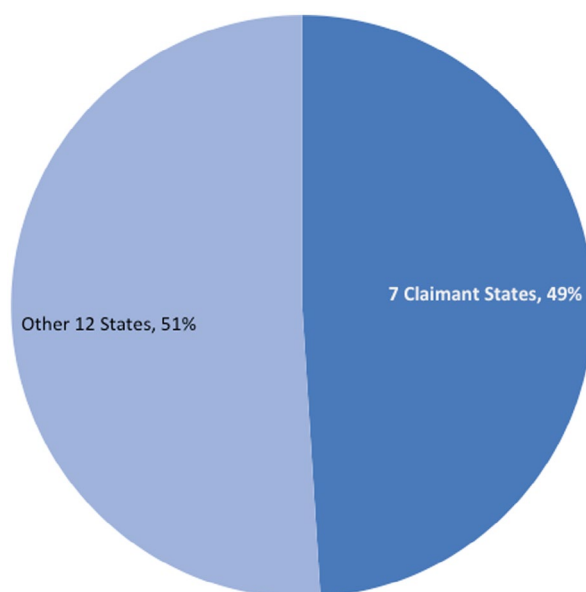


Figure 10. Antarctic bases and stations (wintering). Data Source: Council Of Managers of National Antarctic Programs (COMNAP). Graphic made by the author (October, 2017).

Antarctic scientific publications and the total national number of scientific publications is 0.6 per cent for claimants and only 0.19 per cent in sixty-three other countries studied.⁴⁶ In short, since 1959 the claimants have maintained their profile, demonstrating their interest in Antarctica to the rest of the world and raising public awareness among their citizens.⁴⁷ Publishing science is one way to do this.

Claimant nations have also reaffirmed their Antarctic identity through other means; for example, giving new or different national names to places in Antarctica. In 2012, the United Kingdom announced it was renaming part of the Antarctic plateau Queen Elizabeth Land, in honour of the monarch's sixtieth jubilee.⁴⁸ Chile and Argentina immediately protested,⁴⁹ as the area in question lies within territory claimed by all three nations.

Another way for nations to show commitment towards territorial claims is to employ their armed forces in Antarctic operations, in accordance with article I.2 of the Antarctic Treaty. This carries a special symbolism, as the forces are the most obvious instrument of sovereign power. Chile deploys personnel and military resources in support of its scientific programme,⁵⁰ Australia⁵¹ and New Zealand have used their warships against illegal fishing or whaling,⁵² as has Chile in fishing control.⁵³ The role of the Royal Navy's HMS *Protector* is to

⁴⁶Gray and Hughes, "Demonstration of substantial research activity."

⁴⁷Dodds, "Sovereignty watch"; Dodds, "Awkward Antarctic nationalism."

⁴⁸U.K. Government, "Queen Elizabeth Land."

⁴⁹Ministerio de Relaciones Exteriores (Chile), "Declaración del Ministerio de Relaciones Exteriores"; Ministerio de Relaciones Exteriores y Culto (Argentina), "Antártida Argentina: Protesta del Gobierno."

⁵⁰Ferrada, "La defensa nacional."

⁵¹Wilson, *Alfresco Flight*.

⁵²Dodds, "Sovereignty Watch," 236, 239; Bateman, "Australia not pulling its weight"; Bergin, "Defence: advancing our interests."

⁵³Armada de Chile, "Intensos operativos contra la pesca ilegal"; Armada de Chile, "Armada cumple record de pesqueros fiscalizados"; Prensa Antártica "Siete buques factoría internacionales."

“give the UK a sovereign presence in the British Antarctic Territory and the South Georgia and South Sandwich Islands and surrounding maritime areas [and] support their security and good governance”⁵⁴ within the administration of this special overseas territory,⁵⁵ an activity that includes input from the Ministry of Defence.⁵⁶ Argentina employs its armed forces, too, sending them to the peninsula region, and matching its status as claimant with its role in the ATS.⁵⁷ Several non-claimants also use military support, but in these cases, there is not a sovereign claim implicit. Such activity can nevertheless be geopolitically important, as is the case of the United States.⁵⁸

The involvement of claimant states in various Antarctic sectors goes much further than a basic military or scientific presence. They take on and finance search and rescue operations, such as the Chilean-Argentinean Joint Antarctic Naval Patrol,⁵⁹ or Chile’s installation and maintenance of navigational aid beacons in the Antarctic Peninsula area.⁶⁰ Although France is the only state that has expressly enshrined its status as a claimant in its Constitution (article 72–3, para. 4), having a visible presence remains a priority for all claimant states.

The Convention on the Regulation of Antarctic Mineral Resource Activities (1988, not entered into force) recognised the status of claimants (article 29). This is restated in the Madrid Protocol when addressing any eventual mining exploitation (article 25.5.a). The status of claims is linked to the ability of coastal states to request recognition of rights over the extended continental shelf (article 76 and Annex II of UNCLOS, 1982), which claimants consider to legitimately extend from their Antarctic territories. The possibility of such activity has caused some debate,⁶¹ raising questions about the relationship between UNCLOS and the ATS more generally, and, more specifically, whether the recognition of rights over the extended continental shelf is an enlargement of the existing claims, which is not allowed under article IX.2 of the Antarctic Treaty. In addition to their geographical contiguity, Chile, Argentina, Australia, New Zealand (and South Africa) are responsible, according to the IMO and the International Civil Aviation Organization, for sea and air search and rescue in the nearest Antarctic spaces, which gives them some control over ships and aircraft present in that area. This singular power looks like it is being challenged today, especially by the United States,⁶² but it shows the concrete importance of at least some of the claimant states.

One of the great achievements of the ATS has been to enable co-government by claimants and non-claimants, guaranteeing Antarctica’s exclusively peaceful use.⁶³ Articles IV and IX of the Antarctic Treaty play a crucial role in this regard, establishing a balance between the different types of state party, suspending territorial disputes and establishing the ATCM as

⁵⁴Royal Navy (U.K.), “HMS *Protector*.”

⁵⁵Dodds and Hemmings, “Britain and the British Antarctic Territory.”

⁵⁶Ministry of Defence (U.K.), “Overseas Territories.”

⁵⁷De Paula, “Uso del instrumento militar”; Colacrai, “La Política Antártica Argentina.”

⁵⁸Klotz, *America on the Ice*; Klotz, “American Interests in Antarctica.”

⁵⁹Sánchez, “Argentina, Chile and the Joint Antarctic Naval Patrol.”

⁶⁰Armada de Chile, “Buque “Aguiles” construye en la Antártica.”

⁶¹For work highlighting these tensions, see Joyner, “Potential challenges,” 97–98; and Triggs, “The Antarctic Treaty System,” 47. For work supporting the lawfulness of that application, see Infante, “Antártica y la jurisdicción marítima”; and Gorostegui, “Chile y la Plataforma Continental Antártica.”

⁶²See Final Report XXXV ATCM (Hobart, 2012), parr. 175–221; Resolution 4 (2013); XXXV ATCM (Hobart, 2012), WP 51 (United States); Final Report XXXV ATCM (Hobart, 2012), parr. 152–155; Resolution 8 (2012); XXXVI ATCM (Brussels, 2013), WP 25 (United States); XXXVI ATCM (Brussels, 2013), WP 52 (United States); XXXVI ATCM (Brussels, 2013), WP 53 (United States); XXXVI ATCM (Brussels, 2013), WP 17 (COMNAP); XXXVI ATCM (Brussels, 2013), WP 34 (New Zealand), among others.

⁶³Infante, “El Sistema Antártico,” 294–295; Berguño, “El Tratado Antártico.”

an Antarctic co-management forum. For claimants, Article IV is also an explicit guarantee of their unique situation: if the ATS does not work properly, the seven claimants will always have a “trump card of sovereignty”.⁶⁴ One cannot think about future scenarios that do not take into account, in a relevant way, the interests of claimants. Because of several claimant states’ geographical locations or specific capabilities, some of them are essential staging points for Antarctic activities.

Politicisation

For some time, there has been a growing politicisation of Antarctic technical-scientific discussions. As Triggs argues, it is undeniable that “every ATS agreement, measure, and decision and state practices in respect to Antarctica should be viewed through the prism of these national perspectives on sovereignty”.⁶⁵ It can be assumed that “the State is a political institution and all issues affecting it as a whole, in particular its relations with other states, are consequently political”.⁶⁶ However, it has always been assumed that the political interests of states were discussed in the ATCMs and that the other forums (Council Of Managers of National Antarctic Programs [COMNAP], the *Reunión de Administradores de Programas Antárticos Latinoamericanos* [RAPAL], Committee for Environmental Protection [CEP], CCAMLR, and the Scientific Committee on Antarctic Research [SCAR]) were of a technical and non-political nature. Nevertheless, these meetings have recently begun to address matters that, by their nature, should be discussed by diplomats and not by scientists or Antarctic operators. Are states or interest groups with more consolidated strategic ideas seeking first to sensitise a non-political public to initiatives that will then be raised in relevant forums once they have the support of other states’ domestic public opinion?

One element that has influenced this politicisation is action by environmental non-government organisations (e.g. Antarctica and Southern Ocean Coalition [ASOC], Sea Shepherd Conservation Society, and Greenpeace), or trade associations (such as the International Association of Antarctica Tour Operators [IAATO]). However, they are not neutral actors. They converge with the interests of some states, or there are states that expressly or tacitly influence or support some of these non-state players. These are links that should be further investigated because they blur the distinction between state and non-state stakeholder and raise intriguing possibilities about how states might form strategic alliances in particular areas of policy concern such as tourism, whaling and fishing. An example is the effort to collect detailed information about yachting activity in Antarctica, even though it is impossible to have effective control over the situation. Since 2010, the United Kingdom and IAATO have provided reports to the ATCM about the number of yachts sighted in the Antarctic during each previous season. Additionally, Argentina provided reports informing parties about the yachts travelling to Antarctica from Ushuaia. Since 2016, the United Kingdom and IAATO have joined with Chile and Argentina to present this information at ATCMs.⁶⁷

⁶⁴Triggs, “The Antarctic Treaty System,” 44.

⁶⁵Triggs, “The Antarctic Treaty System,” 39.

⁶⁶Lauterpacht, *The Function of Law in International Community*, 153.

⁶⁷See XXXIII ATCM, WP 52 (UK, IAATO); XXXIV ATCM, WP 20 (UK, IAATO); XXXIV ATCM, IP 21 rev.1 (Argentina); XXXV ATCM, IP 42 (UK, IAATO); XXXVI ATCM, IP 54 (UK, IAATO); XXXVII ATCM IP 55 (UK, IAATO); XXXVII ATCM, IP 88 (Argentina); XXXVIII ATCM IP 96 (UK, IAATO); XXXVIII ATCM, IP 127 rev.1 (Argentina); XXXIX ATCM, WP 34 (UK, Argentina, Chile, IAATO); XL ATCM, WP 19 (UK, Argentina, Chile, IAATO).

A host of environmental threats to Antarctica also have clear political impacts. The discussions at the recent ATCMs on global warming are a clear example of this. The industrialised nations and NGOs in the northern hemisphere, where most greenhouse gases are produced, have tried to encourage certain countries in the southern hemisphere to decrease their presence in Antarctica to lessen the “human footprint”, as if activities undertaken there – on less than 0.005 per cent of its surface area⁶⁸ – contribute in some significant way to global warming. The effects of global warming in Antarctica are a major issue⁶⁹ but the essence of the problem is not the activities in Antarctica, but rather the impact of the industrialised world’s emissions on Antarctica. Projected sea level rise (SLR) from Antarctic ice sheet melting is an essential element in any Antarctic scenario.⁷⁰

A political purpose can also be seen in the misrepresentation of the “human footprint”, as illustrated in claims that almost the whole Antarctic Peninsula would be greatly affected by humans.⁷¹ In fact, impacts are often localised, and are manifested in different ways in different parts of the Antarctic.

Antarctic regulations that seek to protect the environment or conserve marine living resources allow for limits to, or conditions on, activities in certain areas. The requirements for designating Antarctic Specially Protected Areas (ASPAs), Antarctic Specially Managed Areas (ASMAs) or MPAs are diverse, but the political effects are similar in that they permit the “isolation” of certain areas which may coincide with states’ geostrategic interests. This would appear to be the case with New Zealand’s proposal for an ASMA around the Balleny Islands.⁷² Legally, this could constitute an “abuse of law” (using a regulation in a seemingly regular way but with a different objective to that considered in establishing it), but politically it is a lawful way to take advantage of an international regulation in the national interest. In other words, this is an example of putting stewardship to work for sovereignty purposes.

Protection can thus be used as a political tool. Two-thirds of the seventy-two ASPAs and six existing ASMAs were proposed (alone or together with other states) by some of the claimants, and in almost all cases are within their respective claim.⁷³ Australia, New Zealand and France have been very active in promoting high environmental standards and using “ecological security” as a way of cementing their sovereign rights in the Southern Ocean. In the “unclaimed sector” there are neither ASPAs nor ASMAs, except for at the Pole itself, even though there is nothing to suggest that this area is environmentally any less valuable than the rest of Antarctica.⁷⁴

The Madrid Protocol inaugurated a new stage in Antarctic history, but it should be borne in mind that environmental protection is not the only priority for Antarctica. The projection of future scenarios should also consider legal, economic and political aspects, and consciously work with the understanding that an environmentalist approach is in itself decidedly political. States can and do use environmental protection as a tool to achieve their political and legal objectives.

⁶⁸Bauer, *Tourism in the Antarctic*, 122.

⁶⁹INACH, “Especial Cambio Climático,” 12–25; Turner, *Antarctic climate change and the environment*; Clary and Winther, *Co-Chairs’ Report from ATME on Implications of Climate Change*; Mayewski, “Estado del sistema climático antártico”; Turner, “Antarctic climate change... An update.”

⁷⁰Naish, “What does the United Nations Paris Climate.”

⁷¹Pertierra, “High Resolution Spatial Mapping,” 7 (map of the whole continent), and 8 (detailed map of the Antarctic Peninsula).

⁷²Hemmings, ““Environmental Management” as Diplomatic Method,” 78–79.

⁷³Hughes and Grant, “The spatial distribution of Antarctica’s protected areas.”

⁷⁴Hemmings and Gilbert, “Antarctica’s unclaimed sector.”

Resources

Some of the current inertia and possible instability of the ATS has origins in an implicit but widespread awareness that, sooner rather than later, there will be a need to exploit Antarctic resources more intensively. This will happen because of other global processes. Each year, the calendar date by which humanity consumes all the natural resources that the Earth is capable of producing for that year (*Earth Overshoot Day*) occurs earlier.⁷⁵ In 2017, it occurred on 2 August, much earlier than in previous years.⁷⁶ How will this situation be handled in the long term? The world's population is expected to grow from 7.5 billion to 9.6 billion by 2050 and to 11 billion by 2100, as Figure 11 shows. People will want higher standards of living and access to the comforts of the developed world, which will require greater resources.⁷⁷ Different fertility rates and living conditions, sanitation and health, will lead to a population increase in certain regions (and their relative political significance) and either stability or a decrease in others (in addition to migratory phenomena), so needs and distribution will vary.⁷⁸ The exploitation of Antarctic resources will be more or less unavoidable, with the subsequent risks to ecosystems.

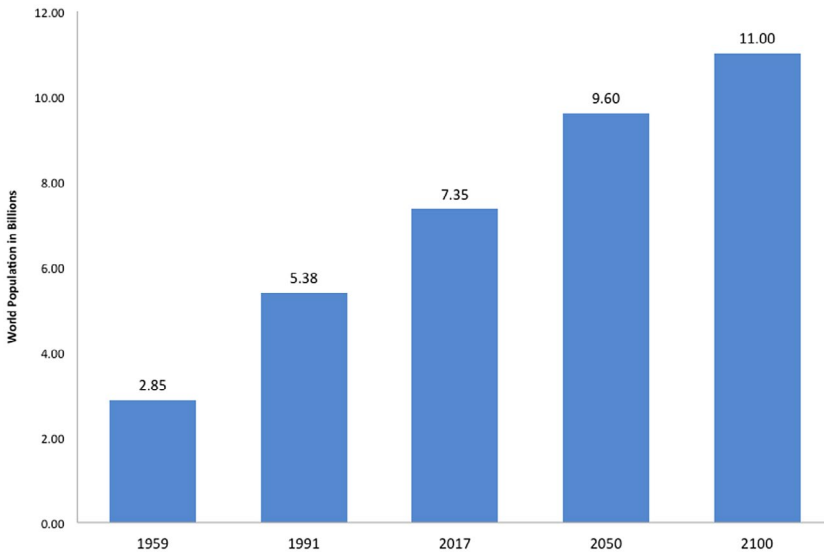


Figure 11. World population (in billions): Antarctic Treaty adoption (1959), Madrid Protocol adoption (1991), now (2017), and projections to 2050 and 2100. Data Source: Union Nations Statics Division and National Research Council (United States). Graphic made by the author (October, 2017).

Antarctic resources are already being used by humans. Fishing, regulated by CCAMLR, is a growing industry, with products such as krill and toothfish of high dietary potential and high commercial value. Due to the increase in notifications from exploratory fisheries,

⁷⁵Earth Overshoot Day (previously named Ecological Debt Day) is measured every year by NGOs and regularly makes headlines.

⁷⁶Roberts, "The Day the Earth Ran Out"; Roberts, "On borrowed time"; Earth Overshoot Day (2017).

⁷⁷National Research Council, *Can Earth's and Society's Systems*.

⁷⁸Parker, *El destino no lo es todo*.

the establishment of greater limitations as well as better control of illegal fishing have been proposed at CCAMLR meetings. Attempts to impose restrictions through MPAs have run into significant opposition, although in late 2016 the Ross Sea MPA was agreed; 72 per cent of the 1.55 million square kilometres will be completely closed to fishing.⁷⁹

Whaling is another example of confrontation over the exploitation of Antarctic resources. The International Convention for the Regulation of Whaling does not prohibit whaling, but rather limits it. Since 1982, a moratorium on commercial whaling has been in place, but it is not absolute, with whaling still occurring in Antarctica and around several northern hemisphere nations. In addition, the IWC lacks the power to enforce compliance, which is why states that are interested in it must do so unilaterally.⁸⁰ This is what has happened in the case of Australia with respect to Japan's activities. It is possible that in future whaling will become lawful again (despite opposition from civil society).⁸¹ It must be remembered that, as recently as the 1960s, whaling was a largely uncontroversial industry in Europe and North America.

Historically, the exploitation of seals was an activity of great commercial importance, which almost led to their extinction in Antarctica.⁸² The 1972 Convention for the Conservation of Antarctic Seals (CCAS) does not prohibit seal hunting but regulates it. In contrast to the Arctic, there is currently no seal harvesting in the Antarctic region, but in the 1960s it was feared by several nations it would restart. Such anxieties prompted the drafting of the convention, which currently sets catch limits at zero.

Other Antarctic resources that may be exploited are minerals and hydrocarbons, although this is prohibited until at least 2048. Such a prohibition does not, however, prevent scientific research into what kinds of resources exist, and how easily they could be accessed. It can be said with some cynicism that "for now" it is only possible to inventory resources for exploitation one day. China, the Republic of Korea and Russia have made their intentions explicit in this regard.⁸³ Given this interest in resources, we have been warned about possible future scenarios that may see Antarctica less protected and more exploited than it is today.

As the largest reserve on the planet, the eventual use of fresh water (in the form of ice) must also be considered.⁸⁴ It is unclear how it would be transported and at what cost, but there are projects that suggest it might become of interest, including the 2017 proposal by the United Arab Emirates to carry icebergs from the Antarctic to Arabic Gulf.⁸⁵

Commercial uses also include bioprospecting aimed at the development of products for human or industrial use. This is currently carried out on some scale but is a much-debated topic in Antarctic and biodiversity forums,⁸⁶ with arguments that it would be incompatible with ATS principles such as freedom of knowledge exchange.⁸⁷ When knowledge takes on

⁷⁹Conservation measure 91–05; CCMLAR Commission, *Report of the thirty-fifth meeting of the Commission*, 39–58.

⁸⁰Wilkinson, "The Use of Domestic Measures," 291; Kubli, "Régimen jurídico de protección," 522–524; Ackerman, "Japanese whaling in the Pacific Ocean," 331–335.

⁸¹IWC, "Revised Management Scheme."

⁸²Pinochet de la Barra, *La Antártica chilena*, 81–88; Richards, *Sealing in the Southern Oceans*, 7–21 and 257–258; Mancilla, "Algunos antecedentes sobre la Política Antártica Chilena."

⁸³Brady, *China as a Polar Great Power*; Perlez, "China, Pursuing Strategic Interests"; Walton, "Book review... The Emerging Politics of Antarctica"; Chown, "Challenges to the future conservation," 158–159.

⁸⁴Lertora, "La condición jurídica del hielo."

⁸⁵See Prensa Antártica, "Emiratos Árabes planea combatir la sequía"; Info 7, "Iceberg en Emiratos Árabes Unidos cada vez más cerca."

⁸⁶Joyner, "Potential challenges," 98–99; Infante, "Antártica y la jurisdicción marítima," 367–368; Puig-Marcó, "Access and benefit sharing."

⁸⁷Villamizar, "Bioprospección Antártica."

economic value, the incentive to share it openly disappears and commercial competition rules, including intellectual property rights, apply. These are not the guidelines within which the Antarctic regime was established. SCAR has proposed “facilitating unrestricted and free access to information on Antarctic research”.⁸⁸ This becomes difficult within a capitalist framework.

Another Antarctic area of economic relevance is tourism. Despite being an industry that brings more than 40,000 people a year to Antarctica,⁸⁹ it has little more control than self-regulation.⁹⁰ Permanent accommodation, including possible hotel development, would surely be a game-changer to an industry that has been overwhelmingly ship-based.

Interest in increasing the exploitation of Antarctic resources is taken as fact, and the only question that remains is when this will occur.⁹¹ This will raise environmental and political questions, the correct resolution of which will depend on maintaining the current equilibrium in the Antarctic. It is therefore essential to anticipate making the necessary political and legal decisions, especially before committed economic interests become too strong.

Conclusion: the year 2048 and beyond

It is impossible to know with certainty how each of these five factors (heterogeneity, internationalisation, sovereignty, politicisation and resources) will evolve, but it should be assumed that the trends of the last decades will continue. Antarctica is attracting ever greater global attention and the continent is integral to future debates about climate change, resource exploitation and environmental protection.

Heterogeneity and asymmetry among ATS parties are set to increase. Since the largest increase in the Antarctic Treaty parties occurred when discussing the exploitation of minerals in the 1980s, it could be that new discussions on resources will motivate other states to join the ATS. This would increase (even more) their heterogeneity and complicate (even more) the decision-making processes. It would produce a broader multilateral regime, where the already consolidated powers, or others that emerge, will want to impose their political influence and interests. The seven claimants will seek to maintain their prominence and resist, as far as they can, losing the prerogatives that history and/or geographical position provide them. These tensions will continue to politicise Antarctic talks. We should not forget the presence of two powerful semi-claimants in the shape of the United States and Russia. Science, physical presence and environmental protection are all pieces of a great Antarctic geopolitical chessboard, designed to control and exploit the continent’s economic, political and symbolic resources.

Today there is a risk of cooling in international Antarctic relations. Paradoxically, this began after the enthusiastic celebration of the fiftieth anniversary of the Antarctic Treaty (2011), when there was much talk of the past and little of the future.⁹² At the commemoration of the twenty-fifth anniversary of the adoption of the Madrid Protocol (2016), speeches addressed the challenges ahead, but there was no commitment beyond the immediate

⁸⁸SCAR, *Strategic Plan 2017–2022*, 11.

⁸⁹Considering that IAATO represents the most but not all tourist operators, 44,367 persons travelled to Antarctic with IAATO operators during the 2016–2017 season, representing an increase of 15 per cent compared to the previous season. See XL ATCM, IP 162 (IAATO).

⁹⁰Haase, Lamers and Amelung, “Heading into uncharted territory”; Wright, “Southern exposure”; Harcha, “Tourism in Antarctica.”

⁹¹Hemmings, “Antarctic politics,” 513.

⁹²Final Report XXXIV ATCM (Buenos Aires, 2011), Part III. Opening and closing addresses and reports.

time.⁹³ There seems to be genuine concern about current problems but little appetite for new obligations in the longer term. International players are alert to change and how, in such circumstances, to take advantage.

One date is perceived as critical and, for practical purposes, it is tomorrow: the year 2048 is just 30 years off, which in historical terms is close. The year 2048 marks the 50 year period after which a conference could be called to review the Madrid Protocol. At this point, and once certain complex conditions have been met, the Protocol could be modified by a majority without requiring consensus. One of the aspects open to possible discussion is the exploitation of minerals and hydrocarbons, a topic that will mobilise economic, political, and environmental interests both for and against. How are states preparing for this? There are many interconnected factors to take into account. We also have *inter alia* the renewal of the Ross Sea MPA (which currently lasts until 2052), as a possible tipping point in the future, while whaling is another possible source of ongoing friction.

The future determination of Antarctic scenarios in the medium and long term is a task that deserves greater attention. Regardless of what happens politically, the ice, sea and air of Antarctica will continue to alter as ongoing climate change refuses to relinquish its grip on this part of the world. Among the countless possible scenarios, there is a need to define the most probable without dismissing a priori that the Antarctic Treaty itself could lose its legal and political force. Many states have decided that this will not happen since the ATS has been a workable solution to the complex international problem of managing Antarctica. It is this same conviction that drives us to redouble our efforts to think about how we will satisfactorily solve the new challenges of today and tomorrow.

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⁹³Final Report XXXIX ATCM (Santiago, 2016), 92–107.

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