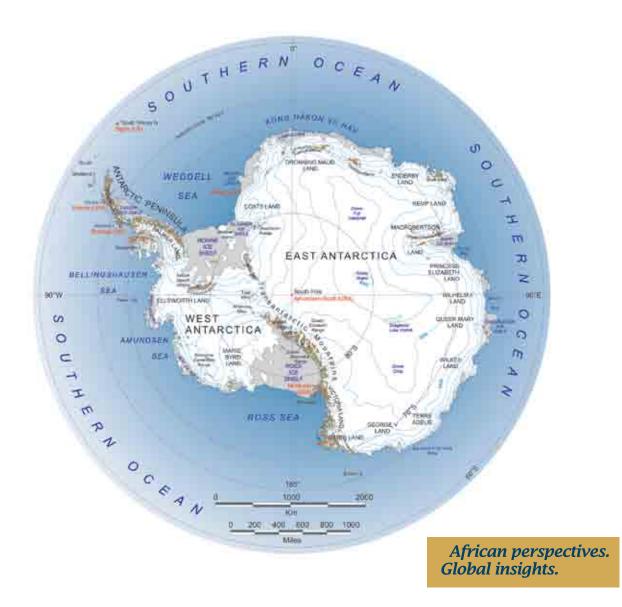


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RESEARCH REPORT 23

TO THE ENDS OF THE EARTH: ANTARCTICA, THE ANTARCTIC TREATY AND SOUTH AFRICA

ELIZABETH SIDIROPOULOS & TOM WHEELER



SOUTH AFRICAN INSTITUTE OF INTERNATIONAL AFFAIRS

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MANAGER Aditi Lalbahadur, aditi.Lalbahadur@wits.ac.za

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AUTHORS

ELIZABETH SIDIROPOULOS is the Chief Executive of the South African Institute of International Affairs (SAIIA). She has headed the institute since 2005. Her research focus is South Africa's foreign policy, global governance and the role of emerging powers in Africa. Her two most recent works are co-edited volumes on *Institutional Architecture and Development: Responses from Emerging Powers* and *Development Cooperation and Emerging Powers: New Partners or Old Patterns?* (Zed Books, May 2012). She serves on the World Economic Forum (WEF) Global Agenda Council on the Future of Regional Organisations, and the WEF Think Tank Leaders Forum. Until recently, she also served on the International Advisory Board of the EU Development Commissioner, Andris Piebalgs.

TOM WHEELER recently retired from SAIIA, where he had worked since 2003. Before joining SAIIA he had spent 42 years in the South African Foreign Service. He was a member of the South African delegations to the Antarctic Treaty consultative meetings that adopted the Convention on the Conservation of Antarctic Marine Living Resources in 1980. He led the South African delegation to the 18th Antarctic Consultative Meeting in Kyoto, Japan in 1994. He visited Antarctica aboard the vessel *SA Agulhas* during the 1983 summer season, including to the SANAE III base and the newly established German base Georg von Neumayer.

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EXECUTIVE SUMMARY

One of the most effective global governance regimes of the post-World War II period that has received very little attention over the years is the Antarctic Treaty. Driven by Cold War pressures and a failure to regulate multiple and overlapping land claims in Antarctica, the US initiated a process that led to the 1959 Antarctic Treaty (the Treaty). Of the 50 Treaty members, 29 (including South Africa) are 'consultative parties' with voting rights. The Treaty provides for inspections and stipulates, inter alia, that Antarctica should remain a zone of peace and scientific enquiry, setting to the one side existing territorial claims. Furthermore, under the Madrid Protocol (which came into force in 1998), mineral exploration is prohibited until at least 2048. Although the Treaty is regarded as generally successful, it is in need of reform, in particular as regards its two-tier membership structure and the non-applicability of its provisions to non-members. Other threats to the Treaty include possible mineral exploration, biological prospecting, unsustainable levels of commercial fishing (legal and illegal) and mass tourism.

Over the years emerging powers have displayed a growing interest in the Antarctic. India, China and South Korea, to name a few, have all increased their presence and scientific activity there. As a contracting party, South Africa has been involved from the outset in the Treaty and its ancillary frameworks. However, it has concentrated mostly on science. More focus needs to be placed on the evolution of the political debate and on South Africa's core interests. South Africa should pay more attention to Antarctic matters and continue to play an active part in the deliberations of Treaty agencies that uphold the Treaty's original intent.

ABBREVIATIONS & ACRONYMS

ATCM	Antarctic Treaty Consultative Meeting
ATP	Antarctic Treaty party
CCAMLR	Convention on the Conservation of Antarctic Marine Living Resources
CEP	Committee on Environmental Protection
CRAMRA	Convention on the Regulation of Antarctic Mineral Resource Activities
DEA	Department of Environmental Affairs
DEAT	Department of Environmental Affairs and Tourism
DIRCO	Department of International Relations and Cooperation
DPW	Department of Public Works
DST	Department of Science and Technology
Glonass	Global Navigation Satellite System
IAATO	International Association of Antarctica Tour Operators
IBSA	India, Brazil, South Africa
ICJ	International Court of Justice
ICSU	International Council of Science
IUU	illegal, unreported and unregulated (fishing)
IWC	International Whaling Commission
Madrid Protocol	Protocol on Environmental Protection to the Antarctic Treaty
MPA	marine protected area
NAM	Non-Aligned Movement
NRF	National Research Foundation
SANAE	South African National Antarctic Expedition
SANAP	South African National Antarctic Programme
SCAR	Scientific Committee on Antarctic Research
the Council	the Arctic Council
the Treaty	the Antarctic Treaty
UNCLOS	UN Convention on the Law of the Sea

CHAPTER 1

INTRODUCTION

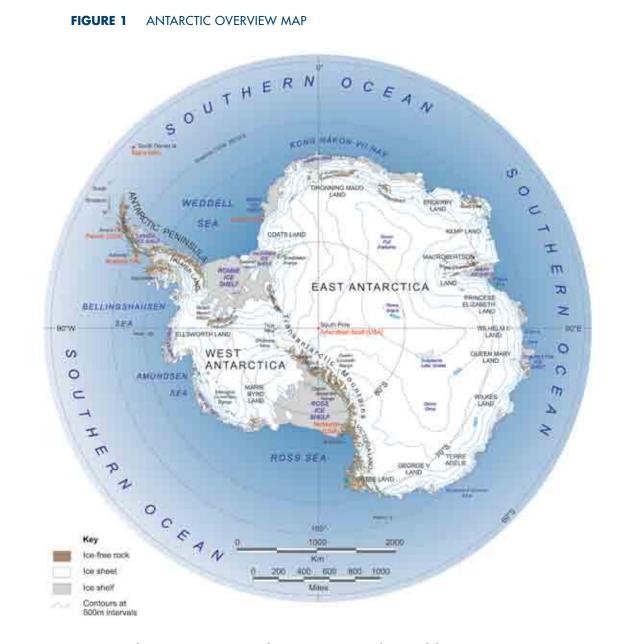
THE POLAR REGIONS

Perhaps because of their inhospitable climate and physical inaccessibility, the polar regions at the northern and southern extremes of the earth's surface have always fascinated geographers, cartographers and explorers. The main focus of this attention was, and largely still is, the Arctic – an ocean surrounded by land in the Northern Hemisphere. Now, however, there is an additional, commercial lure: the exploitation of minerals in the region, and the increasing feasibility of the old traders' dream of north-east and north-west shipping passages as transport routes¹ between Asia and Europe as a result of the large-scale melting of the Arctic ice. This recent phenomenon has focused global attention on the region, since without such an increase in surface temperature there would be little or no prospect of exploiting the mineral resources in the Arctic seabed.² Because of the previous impracticality of accessing these mineral resources, there has been no attempt to create any form of international governance regime over those parts of the Arctic Ocean that fall outside national jurisdictions.³ The position is all the more complicated because portions of the Arctic fall within the land or maritime territory of bordering states and have resident human populations.

Against the background of modern navigational and geo-physical technological advances, which have greatly improved human survivability in the extreme conditions of the polar regions, Antarctica – the Earth's southernmost continent, situated in the Antarctic region of the Southern Hemisphere – has become somewhat less remote than in the past. In contrast to the Arctic, Antarctica (literally, 'opposite the Arctic') has no permanent human population. It is the fifth largest of the seven continents, with a surface area of

- Borggerson S, 'The coming Arctic boom: As the ice melts, the region heats up', Foreign Affairs, July/August 2013, pp. 76–89; Dodds K, 'After Kiruna: The Arctic Council and Arctic futures', RUSI Newsbrief, 33, 4, 2013; Financial Times (Europe), 'Chinese cargo ship to attempt historic first transit of northeast passage', 12 August 2013; Lefeber R, 'Polar Warming: An Opportune Inconvenience', Amsterdam Law School Legal Studies Research Paper (draft), 2012-86. Leuven: Amsterdam Law School, 2012, http://papers.ssrn.com/sol3/ papers.cfm?abstract_id=2151241, accessed 21 January 2016; The Economist, 'South park, opening up an empty quarter', book review, 15 June 2013.
- 2 In the context of commercial exploitation of the region it is worth noting that, according to the US Geological Survey in 2008, the Arctic contains up to 30% of the world's undiscovered gas and 13% of its undiscovered oil. Recently, however, authorities have pointed out that there is increasing doubt in commercial circles about the viability of the unproven oil and gas resources of the High Arctic.
- 3 Garcés de los Fayos F, 'Arctic governance: Balancing challenges and development: Regional briefing 2012'. Brussels: European Parliament Directorate-General for External Policies of the Union Policy Department, p. 4, http://www.europarl.europa.eu/RegData/etudes/briefing_ note/join/2012/491430/EXPO-AFET_SP(2012)491430_EN.pdf, accessed 11 March 2014.

14 million km², and is the world's coldest, windiest, highest, remotest and most recently discovered land mass. Surrounding the South Pole – the point at the southern end of the earth's axis – it is almost completely covered by ice and ringed by the Southern Ocean. The continent is shaped like a comma, with the head surrounding the South Pole and the tail curving towards South America. The round portion, lying mainly in the Eastern Hemisphere, makes up East Antarctica. The tail and its thickened base are located entirely in the Western Hemisphere, together forming West Antarctica.



Source: British Antarctic Survey, Natural Environment Research Council, http://www.asoc.org/explore/about-antarctica

The term 'Antarctic region' refers to the entire area south of the so-called Antarctic Convergence – the curve encircling the continent that marks the point where cold, northwards-flowing Antarctic waters meet relatively warmer seas – which serves as the northern boundary of the Southern Ocean.

Antarctica's nearest neighbour is South America (1 000km away) and it lies 4 000km from Africa and 2 500km from Australia. Air temperatures in its high inland regions fall below -80°C in winter and rise to only -30°C in summer. The warmest coastal regions reach freezing point in summer but drop well below that value in winter.⁴

The Antarctic ice sheet holds about 68% of the world's fresh water, and the Southern Ocean has some 7 500 marine animal species, from the little krill to the top predator, the toothfish. The continent is an important driver of global circulation in the atmosphere and the ocean an important determinant of global sea levels. The Southern Ocean is one of the world's largest sinks of atmospheric carbon dioxide.⁵

This paper was conceptualised in the context of the growing media interest in the Arctic as the ice cap's melting accelerates. We wanted to understand and explore further the debate about the opposite pole, the Antarctic, where South Africa has been involved for many decades. How are the climate and power shifts in the world affecting the governance of the Antarctic? What role is South Africa playing in these developments? How is Antarctica internalised into the country's foreign policy narrative and global governance reform objectives, if at all? In comparison with other countries, very little has been written in South Africa about Antarctica from the perspective of international relations. This paper thus starts by providing a brief historical overview of Antarctica and the Antarctica are analysed. South Africa's historical engagement in the region is then discussed, with a focus on the post-apartheid period. The paper looks at some of the weaknesses and challenges facing the system given the evolving political, economic and environmental context, and ends with a number of recommendations for South Africa.

⁴ Quoted from CRI (China Radio International), 'Antarctica introduction', website, 14 November 2011, http://english.cri.cn/3126/2007/11/14/902@294162.htm, accessed 14 March 2014.

⁵ IAATO (International Association of Antarctica Operators), 'Climate change in Antarctica: Understanding the facts', http://iaato.org/documents/10157/100441/ClimateChangeA4.pdf.

CHAPTER 2

VOYAGES OF EXPLORATION

From the 15th century until the first sighting of the continent by the American seal hunter Nathaniel Palmer in the summer of 1820/21, various efforts were made to find the rumoured Antarctic continent.⁶ Whalers and sealers had been active in Antarctic waters for many years, and from 1840-1890 expeditions from several nations further explored the Antarctic coast and began scientific investigations of its geology. However, northern governments seemed to lose interest in the region during the latter half of the 19th century.⁷ By the turn of the 20th century, this had changed and, by that time, the focus was on exploring the interior rather than the fringes of a continent about which little was known. Events taking place in the heyday of Victorian exploration coloured the intense competition to be the first to reach the South Pole. Famous names among polar explorers of that time include Captain Robert Falcon Scott, Sir Ernest Shackleton and the Norwegian Roald Amundsen. Amundsen was the first to reach the South Pole on 16 December 1911, while Scott arrived there only days later, on 4 January 1912.⁸ Unsurprisingly, the exploration led to territorial claims. Between 1908 (UK) and 1942 (Argentina) seven countries laid claim to sectors of Antarctica, with those of the UK, Chile and Argentina overlapping to varying degrees. The UK, which had invoked 'environmental authority' and stewardship for its claim, also encouraged New Zealand and Australia to lay claim to vast swathes of Antarctica, which they did. The UK, hoping to bring Antarctica into the British Empire/Commonwealth, also approached South Africa to make a claim, but it declined to do so.9 France, New Zealand, Norway and the UK recognised each other's mutual claims. However, these claims, taken with the increased activities of nonclaimant states in and around Antarctica, made for potential conflict.

The US refused to claim any part of the continent, although the UK had hoped it would claim what is known as the 'Pacific Ocean' sector, the only portion of Antarctica not claimed by any state.

⁶ Fletcher H, Antarctic Days with Mawson. Melbourne: Harper Collins, 1984, pp. 13–17.

⁷ Ibid., p. 21.

⁸ Ibid., p. 26.

⁹ Dodds K, The Antarctic: A Very Short Introduction. Oxford: Oxford University Press, 2012a, p. 51 (Kindle).

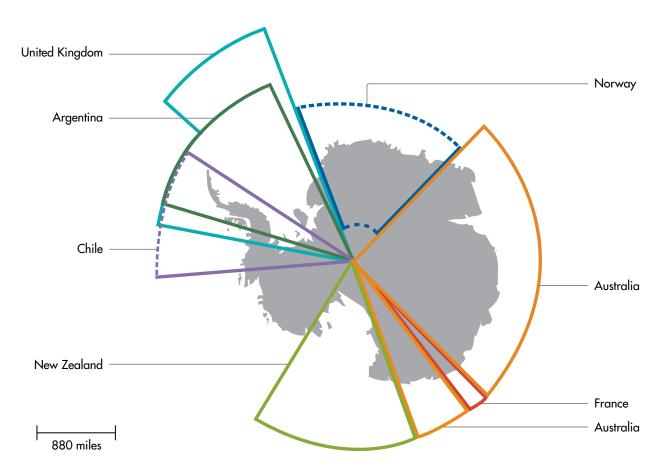


FIGURE 2 MAP OF ANTARCTIC TERRITORIAL CLAIMS BY STATES

Note: Claims are colour-coded.

A dashed line indicates that there is no specified limit delineated (northern or southern for Norway, northern for Chile)

Source: The k2p blog, 'Antarctic territorial claims', http://ktwop.com/2013/03/12/surprise-99-8-of-britishers-on-the-falklands-wish-to-stay-british/

CHAPTER 3

THE ANTARCTIC TREATY

The two poles of the earth are essentially governed by different arrangements. The Arctic Ocean is surrounded by land masses that form part of the legitimate jurisdiction of a number of states. Antarctica is an uninhabited continent. In international law it constitutes *terra nullius* (land belonging to no-one). No part of its land mass falls within the national or maritime territory of any bordering state.

THE ARCTIC FRAMEWORK

A framework to regulate the Arctic's governance only came into existence after the end of the Cold War, much later than the arrangements governing Antarctica. The closest to any international jurisdiction over the Arctic region is the Arctic Council, which was established by the Ottawa Declaration of 1996.¹⁰ Its mandate excludes peace and security issues, although the Arctic's increasing geopolitical relevance and Arctic Council members' competing claims if the ice melts may necessitate paying attention to these matters in future. The Arctic Council's members are Canada, Denmark (a delegation comprising Denmark itself, Greenland and the Faroe Islands), Finland, Iceland, Norway, Russia, Sweden and the US. Organisations of indigenous people within the national jurisdictions of member states have the status of permanent participants. In addition, Germany, Spain, France, the Netherlands, Poland and the UK have observer status owing to their long-standing Arctic presence and research activities there. In 2013 China,¹¹ India, Singapore, South Korea, Italy and Japan were granted permanent observer status.

The Arctic Ocean falls under the provisions of the UN Convention on the Law of the Sea (UNCLOS). Most of the world's states have ratified UNCLOS, including South Africa and most other African states.¹² In terms of UNCLOS, the five states bordering on the Arctic

¹⁰ Joint communiqué of the governments of the Arctic countries on the establishment of the Arctic Council. See Arctic Council, 'Ottawa Declaration: Declaration on the Establishment of the Arctic Council', 19 September 1996, https://oaarchive.arctic-council.org/ handle/11374/85.

¹¹ China's position on the Arctic has reflected the view that 'no nation has sovereignty over it', as stated in 2010 by a rear admiral in the Chinese Navy. China's State Oceanic Administration argued more recently that China was a 'near Arctic state' and that the Arctic is an 'inherited wealth for all humankind'. However, in being accepted as an observer at the Arctic Council, China has had to accept the territorial claims of the Arctic littoral states. China has built up an active presence in the Arctic through research and business interests: it has had a polar station, the Arctic Yellow River Station in Svalbard (Norway), since 2003, while it is exploring commercial projects in oil and gas with Russia, as well as others in Greenland and Iceland.

¹² Eritrea and South Sudan have not signed the convention, while Burundi, the Central African Republic, Ethiopia, Libya and Rwanda have signed but not ratified it.

region can claim sovereign rights to the seabed and related resources provided they can show that the area claimed is an extension of their continental shelf.

The US is not a party to UNCLOS, the US Congress having withheld ratification. The US has, however, signed the Ilulissat Declaration, agreed to at a meeting in Ilulissat, Greenland between the five Arctic coastal states in May 2008. The declaration stated that the signatories saw no need to develop a new comprehensive international legal regime to govern the Arctic because existing international legal frameworks covered it sufficiently. The US has also signed the Kiruna Declaration of 2013 under which it pledged to act in compliance with international law, including the law of the sea. The US National Strategy for the Arctic region, signed by President Barack Obama in May 2013, pledges to continue to support and observe the principles of established customary international law reflected in UNCLOS. However, these processes do not equate in international law with the ratification of UNCLOS.

Despite this record of international agreement, the Arctic is not without disputes between coastal states, including differences between the US and Canada, which are both NATO members and normally good neighbours. One disagreement concerns the border in the Beaufort Sea between Canada's Yukon and the US' Alaska, while another refers to the US contention that the North-West Passage and the Northern Sea Route are international straits, a position Canada strongly contests.

Canada, Denmark and Russia are working on defining the outer limits of their continental shelves to support their claims to expand their shelf zones to 350 miles, as UNCLOS makes provision for such claims in certain circumstances in the Arctic.¹³ In 2007 Russia planted its flag on the seabed of the North Pole, and claimed that a large part of the Arctic seabed (the Lomonosov Ridge specifically) was an extension of its continental shelf. In 2010 Norway and Russia delineated their Arctic maritime border between them. More recently, Denmark filed a claim in December 2014 for 1 million km² north of Greenland, arguing that the Lomonosov Ridge is an extension of its continental shelf. Ironically, as a non-signatory to UNCLOS, the US may find it difficult to participate in the process of defining the governing of Arctic resources and, indeed, matters of sovereignty.

The process for addressing the claims in terms of UNCLOS will take many years, but shifting geopolitical tensions may make it more difficult to navigate disputes inside the Arctic Council.

¹³ UNCLOS allows for all coastal states to have a continental shelf extending 200 nautical miles from the coast or beyond 200 nautical miles if the shelf is a natural extension of its land territory. The convention also recognises that coastal states have sovereign rights over the natural resources of the seabed and subsoil of the continental shelf, as well as jurisdiction over certain activities such as marine scientific research.

BACKGROUND TO THE ANTARCTIC TREATY

Almost 40 years before the Arctic Council was established, in May 1956, US President Dwight Eisenhower invited the other 11 countries then actively involved in Antarctica, including South Africa, to participate in negotiations in Washington, which led to the adoption of the Treaty the following year.

There were two related motives behind the US' initiating the negotiations. First, Cold War competition between the US and the Soviet Union was at its height. With those tensions came fears of military conflict and nuclear weapons testing in the South Pole region. Thus the Treaty was fundamentally driven by the geopolitics of the time and a desire to prevent the Cold War's dynamics spilling over into Antarctica. Second, no international arrangement or treaty regulated Antarctica, as a result of which various countries scrambled to claim sections of the Antarctic as national territory; with some of these claims, as already noted, overlapping. Seven of the original treaty members had asserted claims to parts of Antarctica.¹⁴ This held the potential for conflict. The solution to such long-standing stumbling blocks was found in Article IV of the Treaty (or the Standstill Proposal),¹⁵ which reads in part as follows:

Nothing contained in the present Treaty shall be interpreted as: (a) a renunciation by any Contracting Party of previously asserted rights of or claims to territorial sovereignty in Antarctica

and

No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty shall be asserted while the present Treaty is in force.

Thus the Treaty in effect put territorial claims on hold, focusing instead on international co-operation in the interests of peace and science.

The Treaty, signed by South Africa in 1959, applies to the territory below latitude 60° South and intends that Antarctica be used for peaceful purposes only. It came into force in 1961 after ratification by all signatory countries. There are now 50 members, of which 29, including South Africa, are consultative parties with voting status. South Africa is the only African state party to the Treaty. To be recognised as a consultative party, countries must demonstrate their interest in Antarctica by carrying out substantial scientific activity there. This provision has the effect of privileging countries with the resources, both financial and human, to conduct such scientific research. Consultative parties participate

¹⁴ Argentina, Chile, France, New Zealand, the UK, Norway and Australia have claims on parts of Antarctica.

¹⁵ NSF (National Science Foundation), Directorate Geoscience, 'The Antarctic Treaty'. Arlington: NSF, http://www.nsf.gov/geo/plr/antarct/anttrty.jsp, accessed 7 May 2014.

in decision-making at annual meetings, which other parties may attend only as observers. Decisions are taken by consensus.

TABLE 1 MEMBER COUNTRIES OF THE ANTARCTIC TREATY					
Original consultative parties	New consultative parties	Non-consultative parties			
Argentina	Brazil	Austria	Slovak Republic		
Australia	Bulgaria	Belarus	Switzerland		
Belgium	China	Canada	Turkey		
Chile	Czech Republic	Colombia	Venezuela		
France	Ecuador	Cuba			
Japan	Finland	Denmark			
New Zealand	Germany	Estonia			
Norway	India	Greece			
Russian Federation (Soviet Union at the time)	Italy	Guatemala			
South Africa	Netherlands	Hungary			
UK	Peru	Malaysia			
US	Poland	Monaco			
	South Korea	North Korea			
	Spain	Pakistan			
	Sweden	Papua New Guinea			
	Ukraine	Portugal			
	Uruguay	Romania			

Source: Author

In its 14 articles, the Treaty:

- stipulates that Antarctica should be used exclusively for peaceful purposes (military activities, such as the establishment of military bases or weapons testing, are specifically prohibited);
- guarantees continued freedom to conduct scientific research, as enjoyed during the International Geophysical Year 1957–1958;¹⁶
- 16 International Geophysical Year activities during that period paid specific attention to the Antarctic. Research on ice depths provided new estimates regarding the earth's total ice content. The research also contributed to improved meteorological prediction, advances in the theoretical analysis of glaciers, and better understanding of seismological phenomena in the Southern Hemisphere. Its success acted as a spur for the drafting of the Antarctic Treaty.

- promotes international scientific co-operation, including the exchange of research plans and personnel, and requires that research results be made freely available;
- sets aside the potential for sovereignty disputes between Treaty parties by providing that no activities will enhance or diminish previously asserted positions with respect to territorial claims;
- provides that no new or enlarged claims can be made, and makes rules relating to jurisdiction;
- prohibits nuclear explosions and the disposal of radioactive waste;
- provides for inspection by observers, designated by any party, of ships, stations and equipment in Antarctica to ensure the observance of, and compliance with, the Treaty;
- requires parties to give advance notice of their expeditions;
- provides for the parties to meet periodically to discuss measures to further the objectives of the Treaty; and
- puts in place a dispute settlement procedure and a mechanism by which the Treaty can be modified.

In 1964 the parties adopted 'Agreed Measures for the Protection of Fauna and Flora'. The Treaty has been amplified further by three additional agreements.¹⁷

- The Convention for the Conservation of Antarctic Seals in 1972.
- The Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) in 1980. This included the establishment of an international organisation with a legal persona and staff based in Hobart, Australia.
- The Protocol on Environmental Protection to the Antarctic Treaty, known as the 'Madrid Protocol' (promulgated in 1991; came into force in 1998). It included the establishment of the Committee on Environmental Protection (CEP), which reports to the Antarctic Treaty Consultative Meeting (ATCM).

Although the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) was negotiated in the late 1980s and opened for ratification in 1988, it never entered into force because Australia and France declined ratification on the grounds that it did not explicitly exclude exploitation of mineral resources.¹⁸ Both states worked hard to ensure the adoption of a regime that specifically protected the environment. On the other hand, South Africa was an active supporter of CRAMRA. It feared the impact that Antarctic minerals entering the global market would have on South Africa's position, but the country also wanted to avoid the minerals issue falling under UN control, as the possibility of its exclusion from such a regime would be assured.¹⁹

- 18 Australia, Department of the Environment, Australian Antarctic Division, 'The Madrid Protocol'. Kingston: Australian Antarctic Division, http://www.antarctica.gov.au/law-andtreaty/the-madrid-protocol, accessed 10 March 2014.
- 19 For a more detailed discussion on Antarctica, minerals and apartheid, see Van Der Watt L-M, 'Return to Gondwanaland: South Africa, Antarctica, minerals and apartheid', *The Polar Journal*, June 2013, pp. 1–22.

¹⁷ ATS (Secretariat of the Antarctic Treaty), 'Related agreements', Buenos Aires: ATS, http:// www.ats.aq/e/ats_related.htm, accessed 2 September 2013.

CRAMRA was superseded by the Madrid Protocol, which explicitly precludes the exploitation of mineral resources for 50 years from the date of its entry into force. Mineral exploitation is therefore prohibited until 2048. In terms of Article 25, the protocol may be reviewed after 50 years of coming into force if a contracting party so requests. This means that the ban on mineral exploitation is guaranteed until at least 14 January 2048 and possibly beyond. Overturning the prohibition requires a majority of 75%. By October 2014, 37 countries that were party to the Treaty had also ratified the Madrid Protocol, among them Belarus, China, India, Russia, South Korea and Pakistan.²⁰ All the consultative parties are also parties to the Madrid Protocol.

The ATCM's technique of drafting separate treaties to deal with specific issues, while maintaining the dominance of the Treaty and the integrity of Article IV, has been a useful process that has met with success over the decades of the Treaty's existence.²¹ The ATCM has also been a model for other international treaties, such as the Chemical Weapons Treaty's inspection regime.²² The 1967 Outer Space Treaty also borrowed concepts from the Antarctic Treaty.

²⁰ See ATS, 'Parties', http://www.ats.aq/devAS/ats_parties.aspx?lang=e, accessed 25 April 2014.

²¹ Triggs G, 'The Antarctic Treaty System: A model of legal creativity and cooperation', in Berkman PA *et al.* (eds), *Science Diplomacy: Antarctica, Science and the Governance of International Spaces.* Washington DC: Smithsonian Institution, 2011, p. 44.

²² Haward M, 'The Antarctic Treaty System', in Brady A-M (ed.), *The Emerging Politics of Antarctica*. London and New York: Routledge, 2013, p. 18. (Kindle version)

CHAPTER 4

CHANGING INTERESTS OF ANTARCTIC TREATY POWERS

To commemorate the 50th anniversary of the Treaty, on 9 April 2009 the ATCM in Washington issued a ministerial declaration recognising the achievement of the Treaty in promoting peace and international co-operation in the Antarctic region.²³ Nevertheless, the circumstances that made it easier to respect the Treaty in earlier decades are changing. Melting ice, technological innovation that is beginning to make certain types of resource exploitation more feasible, and the changing global geopolitical environment have all played a role in altering the way countries both inside and outside the Treaty engage. The melting of the Arctic ice and renewed activity at the North Pole have also inevitably generated more interest in the opposite pole, notwithstanding the different regime that governs it.

Due to the changing global power landscape, more opportunities are thus being created for the basic assumptions of the Treaty to be fundamentally challenged by both consultative parties and others.

It is undeniable that Antarctica has grown in political importance. Its 'carving' up a century ago was probably one of the last acts of colonial conquest. The fact that it was *terra nullius* meant that, with a few exceptions (India before the Treaty was signed and later Malaysia), Antarctica was never subject to widespread international campaigns to 'decolonise' it. The Treaty of 1959 'froze' claims but nevertheless created an elite club of members that in effect governed the territory. While the global governance regime of the post-World War II order remained largely unchallenged, the Antarctic Treaty System faced few significant obstacles. However, in the decades since the end of the Cold War, as economic imperatives of growth and development have accelerated and global political power has shifted in relative terms, the desire to play a more influential role in the Antarctic Treaty System has grown among the big developing countries in particular. And in the Treaty's context, political influence is achieved through research excellence and presence.

Emerging powers (and middle powers such as Australia and South Korea) have recognised that a presence in Antarctica is critical for influence in the Antarctic Treaty System, and the bigger the presence the better. However, presence is not enough. Presence has to generate research output. Leading in scientific research provides a significant degree of prestige and leverage in the Antarctic Treaty System. For all aspiring or established powers, such prestige in knowledge generation is an important attribute in the criteria of what makes a great power. Brady emphasises that 'knowledge [...] is power, and states which can come up with scientific evidence to back up any policy changes they wish to promote are likely to be more influential'.²⁴

²³ See US, Department of State, 'Antarctic Treaty consultative meeting XXXII', http://www.state. gov/e/oes/rls/other/2009/121339.htm, accessed 28 January 2014.

²⁴ Brady A-M, 'Introduction: Conflict or cooperation? The emerging politics of Antarctica', in Brady A-M (ed.), *op. cit.*, p. 1. (kindle version).

Apart from bolstering the prestige of powerful states, the ability to influence the trajectory of the Antarctic Treaty System is important for a number of reasons: potential commercial exploitation; Antarctica's geographical advantages in terms of satellite monitoring; the recalibration by many maritime nations of their understanding of their geo-security space; and the continent's significant role in affecting the earth's climate.

Article I of the Treaty prohibits any military measures 'such as the establishment of military bases and fortifications, the carrying out of military manoeuvres, as well as the testing of any type of weapon', but it does 'not prevent the use of military personnel or equipment for scientific research or for any other peaceful purpose'.²⁵ There is a fine line between activities that are of a purely scientific nature and those that may be construed for military ends. Weak monitoring of Treaty members' activities certainly does enable such activities, even if it is extremely difficult to prove. Antarctic Treaty parties (ATPs), especially claimant states, to a greater or lesser extent, have included Antarctica in their military doctrines, but there is little evidence that the provision in Article 1 has been violated so far.

Nevertheless, concern about the possible militarisation of the region has been expressed for some time. In 1986 Keegan and Wheatcroft²⁶ drew attention not only to the Antarctic region's strategic importance for mineral exploitation but also to the importance of the Southern Ocean for the passage of US aircraft carriers and, in particular, of the dominance of the Drake Passage, which separates South America from the Antarctic (and which the authors cite as part motivation for the 1982 Falklands War). There is little or no evidence that this strategic interest has diminished since the end of the Cold War. In addition, Antarctica has advantages in terms of satellite and space research. Bases are growing in number and are often used for monitoring and controlling satellite systems. The reality is that scientific research often has a potential military application too. A detailed study by the Australian Strategy Policy Institute in October 2013²⁷ noted evidence of overt or clandestine military activity, notably the possible use of satellite systems at polar bases to control offensive weapons and gather military intelligence. The report noted that quasimilitary activities such as intelligence gathering in Antarctica do not necessarily require a military presence: such tasks can be carried out by civilian contractors with computer surveillance capacities. While hardly in the spirit of the agreement, technically, the terms of the Treaty are not breached by activities of that kind.

²⁵ British Antarctic Survey, 'The Antarctic Treaty (1959)', http://www.antarctica.ac.uk/about_ antarctica/geopolitical/treaty/update_1959.php

²⁶ Keegan J & A Wheatcroft, *Zones of Conflict: An Atlas of Future Wars*. New York: Simon & Schuster, 1986.

²⁷ Bergin A et al., Cold Calculations: Australia's Antarctic Challenges, Strategic Insights 66. Canberra: Australian Strategic Policy Institute, October 2013, https://www.aspi.org.au/ publications/strategic-insights-66-cold-calculations-australias-antarctic-challenges, accessed 22 April 2014.

The last few years have seen increases in policy announcements and/or activities by various states with a presence in Antarctica. All the claimant states reserve the right to assert their national interests in Antarctica without jeopardising the Antarctic Treaty System itself. Of the states that claim sovereignty over part of the continent, Australia's claim is by far the largest at some 42%. Notwithstanding this, many in Australia have expressed concern that the government has not focused enough on the continent. For economic reasons, Australia has invested little in Antarctic research and logistical support since the 1980s.²⁸ A pledge to give more attention to Antarctica formed part of the election campaign of Tony Abbott in 2013. In October 2014, the Abbott government published a special report on Australia's national interests in Antarctica and the Southern Ocean. Some of its recommendations include ensuring that the Antarctic Treaty System remains strong and stable; establishing Hobart as the world's leading Antarctic gateway; and engaging in, promoting and facilitating international collaboration in Antarctic science and governance.²⁹ Australia regards itself as a leader in Antarctic science. Over the years it has adopted a robust position against whaling in the Antarctic Treaty area as well as on broader environmental issues, including illegal, unreported and unregulated (IUU) fishing.

Since 1923 New Zealand has also laid claim to part of Antarctica, specifically the Ross Dependency. The latest strategy defining New Zealand's strategic interest in Antarctica was released in 2002. It declared New Zealand's commitment 'to conservation of the intrinsic and wilderness values of Antarctica and the Southern Ocean, for the benefit of every country and for present and future generations of New Zealanders'.³⁰ Key priorities of the strategy are to protect Antarctica's status as a natural reserve devoted to peace and science and to keep it nuclear-free.³¹ New Zealand emphasises conservation and sustainable management of marine living resources in the Southern Ocean, in accordance with the CCAMLR and the Environmental Protocol. In 2006 a strategy on the 'Future Management of the Marine Living Resources and Biodiversity of the Ross Sea' was adopted, emphasising the need to find a balance between sustainably harvesting marine living resources and safeguarding the long-term ecological viability of marine systems.³² New Zealand created the toothfish fishery industry when it began harvesting toothfish in the late 1990s. In the 2011/12 season, New Zealand's toothfish catch amounted to 26% of the total catch limit set by the CCAMLR.

31 Ibid.

32 New Zealand, Foreign Affairs and Trade, 'New Zealand and Antarctica: Ross Sea Strategy,' http://www.mfat.govt.nz/Foreign-Relations/Antarctica/1-New-Zealand-and-Antarctica/3-Ross-Sea-Strategy.php, accessed 1 January 2015.

²⁸ Ibid., p. 8.

²⁹ The Hon. Greg Hunt MP, Minister for the Environment, and Senator the Hon. Eric Abetz, Minister for employment, 'Strategic Plan sets Tasmania as gateway for Antarctica', Joint Media Release, 10 October 2014.

³⁰ New Zealand, Foreign Affairs and Trade, 'New Zealand and Antarctica: New Zealand's strategy in the Antarctic', http://www.mfat.govt.nz/Foreign-Relations/Antarctica/1-New-Zealand-and-Antarctica/1-NZ-Strategy-in-Antarctic.php, accessed 1 January 2015.

Both Australia and New Zealand have placed a strong emphasis on the environmental and sustainability aspects of the Antarctic regime, illustrated by their focus on better fisheries management within the CCAMLR and the successful deterrence and reduction of IUU fishing. Both countries have also pushed for the establishment of two marine protected areas (MPAs) in the regions they claim. Their actions reflect a position that their sovereignty claims over Antarctica should be seen as being in the interests of humanity and the preservation of a sustainable environment.

France's claim, made in 1924, is sandwiched between the two claims of Australia. Its exploration in the Antarctic region dates back to the 18th century. France has also positioned itself over the years as promoting a wider European polar dimension to its presence in Antarctica, which strengthens its regional position.³³ Together with Australia it was critical in the overturning of the CRAMRA in the 1980s and the subsequent adoption of the Madrid Protocol, which had a much more stringent environmental regime. France and Australia also co-operate in combating IUU fishing in the areas they claim and have signed two bilateral agreements to that effect. It is among the top five countries in the production of scientific research and sees that as an important element to retain influence with the Antarctic Treaty System.³⁴ France is the only claimant country that has a station outside its own sector.

In the first half of the 20th century, as countries were claiming parts of the continent, Norway became concerned that its whaling interests in the Southern Ocean (begun in 1892) might be compromised as a consequence. Norway's annexation of Dronning Maud Land, territory south of South Africa, dates back to 1939, prompted by concerns that Nazi Germany was making moves to lay claim to part of the continent.³⁵

While Norway emphasises that its interest as a claimant must be safeguarded, it also ascribes importance to ensuring that the region's 'unique and environmental riches are preserved for future generations, and as an important reference area for research on global environmental systems'.³⁶ For Norway, the adoption of the Madrid Protocol moved formal collaboration in the Antarctic Treaty System from two pillars (research and peace) to three pillars, which now included protection of the environment, a pillar in which it played a key supporting role by chairing the CEP after it was established.³⁷ Norway, however, does have considerable commercial interests, in particular in the fisheries sector, where it accounts for most of the krill caught in the Antarctic, followed by South Korea and Japan.³⁸ It also participates in the toothfish fishery in the Ross Sea. In June 2015 Norway issued a white paper that for the first time provided a complete overview of its interests

Sulikowski C, 'The French connection: The role of France in the Antarctic Treaty System', in Brady A-M (ed.), *The Emerging Politics of Antarctica*. London & New York: Routledge, 2013, p. 164.

³⁴ Ibid., p. 165.

³⁵ Rognhaug MH (ed.), *Norway in the Antarctic*.Tromsø: Norwegian Ministry of Foreign Affairs & Norsk Polarinstitutt, 2014, p. 7.

³⁶ Ibid., p. 22.

³⁷ Ibid., p. 16.

³⁸ Ibid., p. 21.

and policy in the Antarctic. The white paper highlights the continuation of Norway's policy in the Antarctic with no fundamental changes announced.³⁹

South Africa's successive bases in Antarctica have all been on territory claimed by Norway.

In western Antarctica, three states have overlapping claims: Argentina, Chile and the UK. Argentina's and Chile's claims date back to 1940 and 1943 respectively. Both regarded the territories they claimed as part of an 'imperial inheritance and integral to national territories',⁴⁰ as Spain (their colonial power) had claimed all territory west of a line extending from the Arctic to the Antarctic in the late 15th century. Argentina claims the territory in Antarctica based on the principle of *uti possidetis iuris* (as you possess under the law).⁴¹

In Patten's unpublished book *South Africa South*, reference is made to papers in the South African Archives that indicate that the Polar Committee was informed through a British diplomatic note in 1946 that in Argentina publicity was being given to its claims in the 'Argentine sector', which was described as 'a natural extension of Patagonia and the Andean chain and therefore geographically part of the Argentine, a claim which is said to be reinforced by forty years' uninterrupted occupation by Argentine scientists'.⁴² The Polar Committee was further informed that the Argentinian attitude was that 'Northern Hemisphere powers have no right to acquire territory in the Antarctic regions which should be reserved for neighbouring nations. Argentine-Chilean unity of purpose in this connection is being stressed by reports of the inclusion of Argentine officers in the Chilean expedition and vice versa.'⁴³ Argentina has been explicit about the role science plays in consolidating its sovereignty rights in Antarctica.⁴⁴ It has had an established permanent presence on the continent since 1904.

The UK's claim was defined in 1908. The UK wished to extend British authority over the entire Antarctic, but this was not to be. In 1955 the UK submitted an application to the International Court of Justice (ICJ) asking the court to recognise its sovereignty over the territory it claimed. However, neither Argentina nor Chile accepted the need to have their claims tested. The signing of the Antarctic Treaty System put the matter on ice, although both sides have raised the issue from time to time, especially in the context of submissions on the continental shelf.

In its most recent Antarctic strategy (2014–19) the UK highlighted five objectives, including supporting its high profile within the Antarctic Treaty System so as to ensure the long-term security of the Territory; and promoting the UK's sovereignty and the territory's

44 Dodds K, 2012a, op. cit., p.96.

³⁹ Government of Norway, 'White Paper on the Antarctic', Press Release, 12 June 2015, https:// www.regjeringen.no/en/aktuelt/paper_antarctic/id2416737/, accessed 7 February 2016.

⁴⁰ Dodds K, 2012a, op. cit., p. 52.

⁴¹ This principle of customary international law was originally applied to establish the boundaries of decolonised states in Latin America.

⁴² Patten J, South Africa South, unpublished manuscript, Cape Town, August 2012, p. 109.

⁴³ Ibid.

environment. The territory receives annual revenue from income tax on over-wintering scientists, stamp and coin sales and interest from its capital reserves. The UK operates three scientific stations in Antarctica.⁴⁵

As noted earlier, the US was instrumental in the establishment of the Antarctic Treaty in the late 1950s. It has long advocated open access, neither recognising any of the claims made on Antarctic territory nor precluding itself from making any territorial claims itself. The Treaty secured for the US unfettered access to the continent for research. Dodds characterises the creation of the Treaty as an excellent example of hegemonic power in the context of the role it played in negotiating the Treaty.⁴⁶ The US maintains three year-round scientific bases in Antarctica, and in 2010 still had the largest expenditure on Antarctica (\$295 million).⁴⁷

The US, Chile and other ATPs have long had a quasi-military presence in Antarctica but, in accordance with the Treaty's provisions, this is restricted to logistical purposes. Military transport facilities, ships and aircraft are used to transport personnel and move equipment, construction supplies and food for researchers and support staff from the home country to the various national bases.

Russia's position on Antarctica is similar to that of the US. It claims no territory but reserves the right to do so. In Russia's wider foreign policy Antarctica enjoys less importance, understandably, than the Arctic, to large parts of which Russia has sovereign rights. Paragraph 74 of Russia's most recent 'Concept of Foreign Policy', approved by President Vladimir Putin on 12 February 2013, merely states: '[W]e will continue our efforts aimed at preserving and expanding Russian presence in Antarctica, including the effective use of mechanisms and procedures provided for in the Antarctic Treaty.'48 Earlier in October 2010 Russia published a 'Strategy for the Development of the Russian Federation Activities in the Antarctic to 2020 and Longer Term Perspective'. The strategy remarks that Antarctica's marine biological resources are larger than those in Russia's exclusive economic zone, making clear the potential long-term fishing prospects provided the Russian fishing fleet's capabilities are increased. A key action identified in the strategy is the conducting of regular integrated fishing expeditions in the Atlantic, Indian and Pacific sectors of the Antarctic to estimate the resources of krill, fish and squid. The strategy critiques the current 'inadequacy' of Russia's activities in Antarctica to further the country's foreign policy goals, although these are not clearly elaborated. Antarctica is also important for Russia's Global Navigation Satellite System (Glonass), which

⁴⁵ UK Government, 'British Antarctic Territory, Strategy 2014–2019', https://www.gov.uk/ government/world/organisations/british-antarctic-territory, accessed 24 January 2016.

⁴⁶ Dodds K, 2012a, op. cit., p. 65.

⁴⁷ Brady A-M, 'The emerging economies of Asia and Antarctica: Challenges and opportunities', in Jabour J, Howard M & AJ Press, 'Australia's Antarctica: Proceedings of a Symposium to Mark 75 years of the Australian Antarctic Territory, Hobart, 24 August 2011', University of Tasmania Occasional Paper, 2, 2012a, pp.103–113.

⁴⁸ The Ministry of Foreign Affairs of the Russian Federation, 'Concept of the foreign policy of the Russian Federation', 12 February 2013, http://www.mid.ru/brp_4.nsf/0/76389FEC16818 9ED44257B2E0039B16D, accessed 16 January 2014.

provides position information to compatible devices alongside the Global Positioning System (GPS).⁴⁹ At present, Glonass only has ground stations in Russia, its neighbouring countries, Antarctica and Brazil, with plans to expand.⁵⁰ However, the US' refusal to set up a Glonass station on its territory in mainland US and Russia's subsequent threats to shut down 11 US-operated GPS stations highlight the importance of the three Glonass stations in Antarctica.⁵¹

Russia has blocked attempts to declare two new MPAs in Antarctica. In the climate of rising geopolitical mistrust between Russia and the West, the Antarctic Treaty may become one more arena of contestation between them.

Of those countries who have been growing their interests in Antarctica, this paper will focus on China, India and Brazil.

China joined the Antarctic Treaty in 1983 and was granted consultative status in 1985 after its first expedition to the continent the previous year. China is beginning to build its fifth base in Antarctica. Its fourth base was completed in the 2013/14 summer season. With the completion of its fifth base, China will have more bases than either the UK or Australia.

The rapid increase in China's scientific presence on the continent is indicative of its lofty scientific ambitions, and a demonstration of its status as an emerging global economic and military power. In 2011 Chen Lianzeng, Vice Minister of the State Oceanic Administration, emphasised that China's five-year plan was to heighten the country's status and increase its influence in order to better protect its 'polar rights and interests'.⁵² China has no claims to any part of the Antarctic, and its bases operate in territory claimed by Australia.

China's Antarctic spending has accelerated in the last 10 years. In its 2005–10 plan, China doubled its expenditure on Antarctica. Its expenditure during the period included setting up a new polar research and logistics centre in Shanghai. In 2010 China spent some \$44 million, compared with about \$20 million annually in the previous five-year period. Although still far behind the US (\$295 million in 2010), Australia (\$143 million), the UK (\$79 million) and Russia (\$67 million), China's trajectory is rising in terms of expenditure

⁴⁹ Garmin, 'What is Glonass?', https://support.garmin.com/support/searchSupport/case. faces?caseId=%7Ba3bcf150-1fa1-11e1-73d0-00000000000%7D, accessed 30 March 2015.

⁵⁰ Bodner M, 'Russia eager to set up Glonass monitoring stations in 36 countries', *The Moscow Times*, 23 April 2014, http://www.themoscowtimes.com/business/article/russia-eager-to-set-up-glonass-monitoring-stations-in-36-countries/498822.html, accessed 30 March 2015.

⁵¹ Sputnik News, 'Shutdown of US GPS stations no threat to Russian satellite projects', 19 May 2014, http://sputniknews.com/russia/20140519/189941446.html#ixzz3VrvPqeEf, accessed 30 March 2015.

⁵² Brady A-M, 'Evaluating China as an Antarctic state', event at Kissinger Institute on China and the United States, Wilson Centre, 13 May 2014, https://www.wilsoncenter.org/event/ china-and-antarctica, accessed 31 December 2014.

on and activities in Antarctica.⁵³ It is also spending much more on the Antarctic than the Arctic (only 20% of its polar expenditure).⁵⁴

Although China works within the Antarctic Treaty System, some Chinese scholars have referred to the system as a rich man's club or a zone for 'collective hegemony'. The China *People's Daily Online* in 2007 noted that '[t]o more ambitious countries, the value of the South Pole is not confined to the economic sphere; it also lies in its strategic position ... With the quickened pace of globalization and increasingly intimate relations between countries in terms of political and economic interests; [sic] many problems, such as the energy shortage and global warming, will have to be settled by the entire international community. For this reason it is impossible to fence off the land and reap the benefits alone.⁵⁵ This statement insinuates a critique of the existing arrangements, and China's conviction that its control of resources in the polar regions should not be decided by a small club of states, especially if it is not a participant. However, China's official and public approach is to operate within existing structures and processes.⁵⁶

China's growing interest in the Antarctic has generated renewed interest from Western powers wary of its intentions.⁵⁷ The reality is that many established Antarctic powers are equally interested in the same opportunities that Antarctica may offer, whether in fisheries, bio-prospecting or mineral exploitation.

India joined the Treaty in 1983, although it undertook its first expedition a year earlier. India's first base was established in the same year. Its third base, Bharati, became operational in 2012. India has increased its spending on Antarctica over time (amounting to some \$33 million per year in 2010).⁵⁸

Antarctica and the Southern Ocean have been linked in India's geostrategic thinking to the Indian Ocean as a vital area of interest and one in which India has more forcefully re-engaged in recent years as it sees extra-territorial powers establish bases and relations with littoral or island states. In 2007, Indian President Shri Pranab Mukherjee bemoaned that the 'importance of Antarctica as a major maritime interest of India is very often underestimated by policy-makers'.⁵⁹ Antarctica was vital to India given the effect its climate had on the monsoon, and it was important in geostrategic terms because India's maritime interests stretched from the Persian Gulf in the north to Antarctica in the south.

- 55 *People's Daily Online* (China), 'A worrisome situation South Pole in the limelight',4 December 2007.
- 56 Brady A-M, 2012b, op. cit., p. 13.
- 57 Interview with researchers, Oslo, Norway, September 2015.
- 58 Brady A-M, 2012a, op. cit., p.108.
- 59 Cited in Chaturvedi S, 'India and Antarctica: Towards post-colonial engagement?' in Brady A-M (ed.), 2013, op. cit., p. 63.

⁵³ Brady A-M, 2012a, op. cit., p. 104.

⁵⁴ Brady A-M, 'Polar stakes: China's polar activities as a benchmark for intentions', *China Brief*, XII, 14, 20 July 2012b.

He emphasised New Delhi's focus on engaging in 'international cooperative activities on preserving Antarctica as a unique and common heritage of mankind'.⁶⁰

Given its earlier activism from the 1950s on the subject, as well as its intention to play a role in rule and norm creation globally, India would still like to see the Antarctic Treaty System reformed.⁶¹ Both China and India reject the claims of the seven states on Antarctica. Colourfully reflecting the advantage that first-comers have had, specifically regarding the location of Antarctic bases, the director of India's Antarctic research observed that trying to find a base in Antarctica 'is like entering an unreserved compartment in a train to find the seats are taken. They think they were in first, so others must keep out.³⁶²

Under Prime Minister Narendra Modi, who has adopted a far more expansive foreign policy driven by India's geostrategic interests, focus on Antarctica may well expand. India has renewed its interest in the Indian Ocean, as seen in its more invigorated approach to the Indian Ocean Rim Association. This is important for Antarctica because, as Chaturvedi and Doyle argue, the boundary between the Southern Ocean and the Indian Ocean will 'become increasingly blurred, especially against the backdrop of climate change being increasingly perceived by some Antarctic powers as some kind of "threat multiplier".⁶³

Antarctica rose in prominence in the public discourse in Brazil after its base there burned down in 2012. Brazil sent its first expedition to Antarctica in 1982, joining as a consultative party in the following year. However, Antarctica as a feature in Brazil's international engagement is older. Brazil was excluded from the discussions in the run-up to the signing of the Treaty (Argentina had actively lobbied against Brazil's involvement), to which it mounted a protest at the time.⁶⁴ Abdenur and Neto argue that, in contrast to Argentina and Chile, which saw Antarctica as a way of 'nation-building', Brazil considered involvement as a way of enhancing its international standing. Brazil also did not align itself with India, Malaysia and Pakistan in their call for the internationalisation of Antarctica under UN trusteeship in the 1980s. In 2008 the Brazilian defence minister said that Brazil had no territorial ambitions in Antarctica but saw the continent as a 'global, scientific space'.⁶⁵

More recently, however, Brazil's revised defence strategy of 2012 emphasises the South Atlantic in its thinking and defines its strategic vicinity to include Antarctica.⁶⁶

- 62 Brady A-M, 2012a, op. cit., p. 107.
- 63 Chaturvedi S & T Doyle, 'Geopolitics of climate change and Australia's reengagement with Asia: Discourses of fear and cartographic anxieties', *Australian Journal of Political Science*, 45, 1, pp. 95–115, cited in Chaturvedi S, *op. cit.*, p. 64.
- 64 Abdenur A & D Neto, 'Rising powers and Antarctica: Brazil's changing interests', *Polar Journal*, 4, 1, 2014.
- 65 Ibid., p. 8.
- 66 Ibid., p. 10.

⁶⁰ *Ibid.*, p. 63.

⁶¹ Ibid., p. 67.

Furthermore, Brazil's foreign policy and defence elites regard Antarctica 'as a site of deepening (if not always overt) competition over natural resources'.⁶⁷

There are potentially many intersects with South Africa regarding using involvement in the Treaty as a consultative party to advance particular national interests around status and prestige. Brazil has leveraged its presence in Antarctica as a way to improve relations with other South American states by convening meetings of researchers from the region on Antarctica and issuing a call for proposals for scientific co-operation in this area.⁶⁸

As these emerging powers come together in various forums such as India, Brazil, South Africa (IBSA) and BRICS, collaboration on Antarctic issues has emerged as one element of such co-operation. IBSA members meet on the margins of the ATCM. There have also been Antarctic personnel exchanges: Brazilian scientists participated in a South African expedition and a South African scientist participated in a Brazilian one. IBSA is planning a joint Antarctic inspection, as permitted in the Treaty.⁶⁹ Among the BRICS members there is also now discussion about producing a working paper for the ATCM on an issue common to all members. One idea being considered is the use of drones in Antarctica. (In terms of the Antarctic Treaty System, a working paper requires a decision, a resolution or a measure by the consultative parties.) The ATCM in Sofia, Bulgaria in 2015 discussed the issue of drones but the matter is controversial and no decision was taken. Drones can be used for scientific purposes but equally for commercial or military reasons.

Among the BRICS members there is a growing sense of the need to co-operate on issues related to the polar regions, whether through common research programmes, joint scientific expeditions or sharing data.⁷⁰

⁶⁷ Ibid., p.14.

⁶⁸ Ibid., p. 9.

⁶⁹ Ibid., p.14.

⁷⁰ Sakhuja V, 'BRICS: The Oceanic Connection', IPCS (Institute of Peace and Conflict Studies), New Delhi, 4 August 2014.

CHAPTER 5

SOUTH AFRICA AND ANTARCTICA

South Africa was a founding member of the 'closed club' of the Antarctic Treaty System in 1959, unlike some of its current key partners in the international arena such as China, India and Brazil. In that sense it occupies a different historical space from other developing or Southern actors. At the height of the Cold War apartheid South Africa was considered part of the 'Western club', and in the years between the two world wars it was even suggested that it claim part of Antarctica for itself. Unlike Australia and New Zealand, however, it chose not to. Since the end of apartheid Antarctica has not featured in a political sense in the government's thinking. This may be partly attributed to its glaring priorities in other regions, especially Africa. Furthermore, there has been an element of sea-blindness in South African policy circles. Until recently too little attention has been paid to South Africa's maritime advantage of straddling two oceans and having sovereignty over islands in the sub-Antarctic.

HISTORICAL BACKGROUND

Between 1920 and 1945 the British government, as well as private interests and research organisations in South Africa, encouraged the South African government to claim a sector of the Antarctic continent and the sub-Antarctic islands south of Cape Agulhas. This formed part of the UK's attempts to secure Antarctica within the British empire/ Commonwealth domain. Even within the South African government a memorandum from 1935 advocated that South Africa should lay a territorial claim, given its proximity to the continent. The main driver behind this was to be able to access living and non-living resources.⁷¹ However, these proposals were rejected, originally for financial reasons and later by the then prime minister, JC Smuts, who saw no merit in them.⁷² When Norway was considering laying claim to parts of Antarctica that the UK had 'offered' to South Africa, the South African government indicated to Norway that it would not object to its claim.⁷³

In *South Africa South*, Patten recounts that it was in August 1945, 'as the clouds of [the] world war cleared, that the first move was made within the structures of the South African government to establish a presence in the Southern Ocean – on Marion Island in the Prince Edward group almost 1 800km south-east of Port Elizabeth and also on Gough Island 2 000km to the south-west of Cape Town'.⁷⁴ This move was driven by the 'desire to improve weather forecasting in South Africa by gaining data from key monitoring

⁷¹ Van der Watt L-M, op. cit., pp. 4–5.

⁷² The history of South Africa's involvement and early non-involvement is dealt with in some detail by Van Wyk AJ, History of the South African Department of Foreign Affairs 1927–1993. Johannesburg: SAIIA, 2005, pp 185-195; and more recently in Patten J, op. cit.

⁷³ Patten J, op. cit., p. 107.

⁷⁴ Ibid., p. 13.

points. Later, the motivation developed a political imperative as well as being expanded to take in numerous different scientific disciplines and the need for nature preservation.⁷⁷⁵ The political imperative that loomed large after World War II was the fear that the Soviet Union might occupy Marion Island, thus establishing a base for itself in the Southern Ocean 'both as a centre for whaling activities but possibly also as a springboard to taking possession of that part of Antarctica directly south of South Africa (nominally claimed by Norway) or for other expansionary visions northwards into Africa'.⁷⁶ Such a move could have posed a direct threat to South African coastal cities such as Cape Town, Port Elizabeth and East London, which would be within range of a rocket attack from Marion Island. It was against this background that Smuts decided to annex the Prince Edward Islands in December 1947, thus establishing a sovereign presence in the sub-Antarctic space.

In the immediate post-war years South Africa briefly raised the possibility with the UK of staking a claim to parts of territory claimed by Norway, but the matter was not taken further. In November 1948, the government informed the five states claiming territory that South Africa had never advanced any claim in Antarctica, but also implied that 'Antarctic claims were challengeable in default of effective occupation, and that Antarctica could be regarded as "terra nullius".⁷⁷ Over the course of the next few years, there were further intimations that South Africa might be interested in claiming land in Antarctica, but these were probably tactical moves rather than substantive attempts, so as to assert 'a right to be included in the international deliberations on the future of Antarctica and to membership of an international authority which might be constituted for the administration and governance of the region'.⁷⁸ Dodds argues that in the late 1950s South Africa's Ministry of Foreign Affairs was especially supportive of a territorial claim.⁷⁹

The major turning point in South Africa's involvement in Antarctica came in 1957–1958 when a South African meteorologist, JJ le Grange, received permission to participate in the Commonwealth Trans-Antarctic Expedition as part of the celebration of the International Geophysical Year. This led directly to South Africa's active involvement in Antarctic research and the establishment of a research station that is staffed year-round (this being a requirement for inclusion in the 1959 negotiations leading to the adoption of the Treaty, as well as for being granted the status of consultative party under the Treaty). At the time of the signing of the Treaty in 1959 South Africa did not in fact have a base on Antarctica, although it had been in negotiations with Norway to take over its base. However, its seat at the table formed part of Cold War calculations; the US favoured South Africa's presence within the Treaty as an ally against the Soviet Union, and urged the country to expedite its

⁷⁵ Ibid., p. 13.

⁷⁶ Ibid., p. 15.

⁷⁷ Ibid., p. 107.

⁷⁸ Ibid., p. 108.

⁷⁹ Dodds K, 'South Africa, the South Atlantic and the international politics of Antarctica', *South African Journal of International Affairs*, 3, 1, Summer 1995, p. 64.

plans to establish a presence in Antarctica. Poland, by then firmly in the Soviet bloc, had applied to participate in the negotiations but had been turned down on the grounds that it did not have a base there, although it was in discussions with the Soviet Union to take over one of its bases.⁸⁰

South Africa agreed to take over the existing Norwegian base and formally renamed it SANAE (South African National Antarctic Expedition) on 8 January 1960. At that time, South Africa was intensely concerned with the security of the Cape sea route between Europe and Asia, and with the activities of the Soviet Navy. South Africa's political leadership saw its Antarctic Treaty policy as part of its alignment with the West during the Cold War and as a way to keep the shipping lanes around the Cape of Good Hope open, without fear of militarised Soviet bases on the white continent. Nevertheless, South Africa's Antarctic activities were of minor significance in the greater scheme of its foreign policy from the 1960s to the 1980s. Rather, the country's interest in the Antarctic Treaty System must be understood in the context of its increasing international isolation as a result of apartheid.

From the mid-1980s onwards UN General Assembly resolutions on Antarctica included a demand to exclude South Africa from the Treaty because of its apartheid policies. In 1985, for the first time in the UN General Assembly, Kenya and Zimbabwe raised the issue of South Africa's membership of the Antarctic Treaty System because of the continuation of the apartheid regime. The move to exclude South Africa failed;⁸¹ the ATPs, excluding India and Brazil but including the Soviet Union, abstained from voting.⁸²

It is noteworthy that the ATPs specifically disclaim the influence of political issues not related to the interests of attaining the objectives of the Treaty. Hence, from the inception of the Treaty South Africa was able to participate fully in its meetings, despite UN sanctions and international opprobrium at the then apartheid government's domestic policy. Throughout the years of international sanctions, South African delegations were seated in alphabetical order between the Soviet Union and Poland without incident (and often sharing similar views on the issues under discussion). This background notwithstanding, no meeting of consultative parties took place in South Africa until 2004; 10 years after the end of apartheid.⁸³ Highlighting the political significance for South Africa of being able to participate in these international meetings was a report by the Department of Environmental Affairs (DEA) in May 1993: 'During a time when South Africa found many doors closed in the international political arena the Antarctic Treaty Council Members

82 Dodds K, 1995, op. cit., p. 70.

83 ATS, 'List of meetings 15 October 1959–10 June 2015', http://www.ats.aq/devAS/info_ meetings_rpt.aspx?lang=e&type=0, accessed 21 January 2015.

⁸⁰ See Patten J, op. cit., p. 113.

⁸¹ Howard M & T Griffith (eds), Australia and the Antarctic Treaty System: 50 Years of Influence. Sydney: University of New South Wales Press New South Books, p. 212. See also UN, http:// www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/40/156.

[sic] remained open. Excellent international relations were established and South Africa found support from Treaty member countries.^{'84}

SOUTH AFRICA'S ACTIVITIES IN THE TREATY

South Africa has sent a research team with support staff to Antarctica every year since the summer of 1959/60. Since then, the South African National Antarctic Programme (SANAP) established four successive bases (respectively, SANAE I–IV) in a sector claimed by Norway in Dronning Maud Land in East Antarctica, 4 500km due south of Cape Town. SANAE's research is divided into physical sciences, earth sciences, life sciences and oceanographic sciences, of which only physical sciences are conducted all year round (see appendix A).

Over the years, South Africa has become party to various activities pertaining to the Antarctic, including the Scientific Committee on Antarctic Research (SCAR), which it joined in June 1960 and where it served as vice-president for eight years. SCAR is an international body operating within the International Council of Science (ICSU) framework. SCAR's mandate is to initiate, develop and co-ordinate international scientific research in the Antarctic region. SCAR also provides scientific advice to the ATCM on science and conservations matters that affect the management of the Antarctic and the Southern Ocean. SANAP, through SCAR, submits an annual report to the ICSU. Several South Africans participate in international SCAR working and specialist groups, and in capacity-building programmes to promote the involvement of young scientists. South Africa's current delegates to SCAR are from the South African National Space Agency and Rhodes University. South Africa has also served as vice-chair and chair of the Standing Committee on Finance and Administration of the CCAMLR.

A survey of the history of South African involvement in Antarctica until 1994⁸⁵ points out that the ports of Cape Town and Durban provided the starting point for exploration of the Southern Ocean and for whaling long before the adoption of the Treaty. More recently, Cape Town has served as the starting point for flights to bases, especially those in Dronning Maud Land, transporting over-wintering teams, inspection visits and the replenishment of stores. The main destination is Novo Airport near the Russian Novolazarevskaya research station; many of the aircraft used are of Russian manufacture. More recently Cape Town has been marketed as an 'air bridge' to Antarctica, with a resulting increase in tourist packages (especially from the UK).

Cited in Dodds K, 'South Africa: Implementing the Protocol on Environmental Protection', in Vidas D (ed.), *Implementing the Environmental Protection Regime for the Antarctic*.
Dordrecht, Boston, London: Kluwer Academic Publishers, 2000, p. 400.

⁸⁵ Dodds K, 1995, op. cit., pp. 60-80.

SOUTH AFRICA'S POST-APARTHEID ENGAGEMENT

With the collapse of apartheid, South Africa's continued involvement in Antarctic research was assured by the 1992 commitment of the ANC government-in-waiting to the logistical and financial aspects of Antarctic research. According to a DEA official, South Africa's strategic interest in Antarctica is no longer founded on its narrow geopolitical value, but rather on environmental issues such as changing ozone levels, climate change and the exploitation of living resources.⁸⁶ In its December 1994 document, the ANC stated that it would take 'special responsibilities which flow from our treaty status and our long interest in the issue very seriously. As good environmental citizens, we will strongly support the comprehensive protection of Antarctica. We urge the development of instruments which will enable the continent to become a "Nature Reserve – Land of Science".⁸⁷ Over the last 20 years South Africa has been focussing on its presence in Antarctica largely through the prism of science and research.

However, South Africa's interests should be considered in a broader context. Antarctica can be an appropriate issue for advancing a number of South Africa's foreign policy tenets – most notably those of multilateralism and a more equitable global order, projecting its stature on the world stage, and the Africa Agenda – while strengthening the objectives set out in the Treaty regarding peaceful use, and science and research.

From the very start of South Africa's democratic dispensation in 1994 the government embraced multilateralism as a principle of international relations. This was coupled with the articulation of an imperative to reform the global order to reflect better the power realities of the 21st century. The Antarctic Treaty System may be construed as a relic of the Cold War governance period. But it is also a system that has evolved over time to accommodate new challenges, seen in the amplification of the Treaty by additional agreements such as the CCAMLR and the Madrid Protocol. Certainly the Treaty's position on preserving Antarctica for peaceful purposes and for research was extremely progressive for its time - albeit driven by Cold War calculations and excluding the vast majority of countries. These principles have become even more important in the 21st century's angst over the effects of climate change and excessive human consumption. Antarctica and the Southern Ocean are a source of knowledge about the earth's past. Climate change in Antarctica, the ocean and the related eco-systems there have an impact on weather and ocean currents further north, including on India's monsoon rains. Antarctica is one of the four global commons (the others being atmosphere, sea and space). Being able to keep Antarctica pristine to both learn and ensure that it too is not excessively exploited should be a key objective of international co-operation.

The Antarctic Treaty System faces a number of challenges. An active South African political engagement in the various forums of the Antarctic Treaty System could see the country play a leading role in the evolution of the Treaty system in a manner that reflects South

⁸⁶ Ibid., p. 75.

⁸⁷ ANC, 'Foreign policy perspective in a democratic South Africa', December 1994, http://www. anc.org.za/show.php?id=230, accessed 30 December 2014.

Africa's own objectives for a rules-based, equitable multilateral system that is inclusive, while also preserving a bio-diverse eco-system that has an important function in climate change mitigation.

Overall, Antarctica does not occupy a significant space in South Africa's foreign policy thinking. This is understandable in the post-1994 foreign policy landscape where South Africa sought to affirm its African identity, reinsert itself into the global community and tackle substantial socio-economic and political problems. Looking northwards to the rest of the African continent and to the East and West, it has not paid enough attention to the surrounding oceans and the landmass to its south. This has only recently been addressed through President Jacob Zuma's announcement of Operation Phakisa and the Blue Economy initiative.

There is no mention of Antarctica in the foreign policy white paper published in 2011 or in the Department of International Relations and Cooperation's (DIRCO) strategic plan 2013–2018. South Africa's work in Antarctica falls under the DEA and the Department of Science and Technology (DST), but DIRCO represents South Africa at the ATCM. This highlights the significance of greater co-operation and strategic thinking between these ministries and DIRCO for three main reasons.

First, science diplomacy should not be underestimated as a tool of 'soft power' and the building of international esteem/profile. Science and Technology Minister Naledi Pandor notes that the 'growing importance of the science content of critical foreign policy issues has necessitated that the South African government pursue a concerted science diplomacy strategy'.⁸⁸ This science diplomacy agenda comprises:⁸⁹

- diplomatic efforts to promote international scientific co-operation;
- international scientific co-operation to address political and economic developmental goals related to foreign policy; and
- the science content of topical international relations issues and diplomatic efforts required to deal with them.

However, science diplomacy needs to be embedded in a broader foreign policy strategy for it to have an impact beyond the science field.

Second, more and more countries are growing their investment and interest in the Antarctic for both geostrategic and economic reasons, as this paper has highlighted. South Africa thus needs to develop a broader discussion within the government, academia and civil society about the implications of these developments for South Africa's interests.

Third, Antarctica is the last pristine environment on our planet, from which we can learn much about the history of the earth, as well as climate change. While there is

⁸⁸ Pandor N, 'South African science diplomacy: Fostering global partnerships and advancing the African Agenda', *Science & Diplomacy*, 9 March 2012, http://www.sciencediplomacy.org/ perspective/2012/south-african-science-diplomacy, accessed 5 January 2015.

⁸⁹ Ibid.

much discussion about resource exploitation, the longer-term goals should ideally be the continent's preservation in the interests of the founding principles of the Treaty – peace and science, and the subsequent environmental protocol. South Africa should thus implement both a pragmatic and a long-term vision for Antarctica that is linked to the advancement of a sustainable global commons. In this, truly international scientific collaboration is critical.

South Africa's stated goal of having Africa at the centre of its foreign policy agenda can equally be advanced through its Antarctic engagement. It is the only full member of the Antarctic Treaty System from Africa. Antarctica provides many science and research opportunities for collaboration among African academic and scientific fraternities and South Africa could help spearhead these in a similar way to the Square Kilometre Array project.⁹⁰ Such initiatives help to mitigate the exclusionary nature of the Antarctic Treaty System (which provides consultative party status only to those countries that can afford to have a permanent scientific presence in Antarctica). This in turn can boost South Africa's stature as a leading developing country and player in South–South co-operation, while also cementing its credentials in helping to move Africa from the margins of global governance debates.

INSTITUTIONAL STRUCTURES

SANAP supports research in the Southern Ocean, including the sub-Antarctic islands and Antarctica itself. SANAP includes a meteorological station on Gough Island (a British protectorate), a meteorological and biological research station on Marion Island and SANAE IV on Antarctica.

In 2003 the South African cabinet approved the transfer of the scientific research functions of SANAP from the then Department of Environmental Affairs and Tourism (DEAT) to the DST. The DEA (as it was subsequently renamed) retains responsibility for all logistics and infrastructure.

The National Research Foundation (NRF) is the agency responsible for grant-making on behalf of the DST.⁹¹ In 2005 the DEAT and DST agreed to add further research opportunities to those already offered by SANAP. The research community was challenged to 'break the ice' and thrash out creative ideas and new directions. Until then, research had concentrated on the physical sciences, including meteorology, geology and fisheries, but participation is now open to researchers in the social sciences (politics, international relations and sociology), humanities (literary studies, visual arts and cultural studies), law (law of the sea) and engineering.⁹² Among the studies undertaken are Antarctica

92 Ibid.

⁹⁰ The Square Kilometre Array is an international collaborative project between South Africa, a number of African partner countries (Ghana, Kenya, Madagascar, Mauritius, Mozambique, Botswana, Zambia and Namibia) and Australia to host the world's biggest radio telescope.

⁹¹ SANAP (South African National Antarctic Programme), 'About', http://www.sanap.org.za/ about_sanap/about_sanap.html, accessed 24 July 2012.

as a window into geo-space, climate variability, biodiversity, responses to earth system variability, engineering a sustainable presence in Antarctica, and the history, sociology and politics of Antarctic research and exploration.⁹³

The DST's Ten-Year Innovation Plan (2008–18)⁹⁴ highlights the vision of establishing an internationally recognised centre of excellence focused on the Southern Ocean and its contribution to global change processes; and strengthened research and global monitoring capabilities on Marion Island, Antarctica and the Southern Ocean in partnership with other countries.

Funding to SANAP from the NRF has grown significantly over the last decade. Table 2 shows research allocations made in various years under SANAP for research in Antarctica.⁹⁵

TABLE 2 NRF-FUNDED RESEARCH: SANAP 2004–15					
Year	Grants made (ZAR*)	% increase/decrease			
2004	3,767,324	-			
2005	6,213,943	65%			
2006	6,991,782	13%			
2007	10,056,938	44%			
2008	14,390,211	43%			
2009	16,679,351	16%			
2010	17,964,624	8%			
2011	12,827,400	-29%			
2012	14,997,747	17%			
2013	9,596,701	-36%			
2014	13,908,736	45%			
2015	21,916,394	58%			

* ZAR = Currency code for the South African rand.

Source: National Research Foundation, email communication, January 2016

SANAP's framework document, released in April 2014, notes the importance of South Africa's geographic proximity to the Antarctic but warns that the country 'runs the risk of

⁹³ SANAP, 'Research', http://www.sanap.ac.za/sanap_research/sanap_research.html, accessed 2 September 2013.

⁹⁴ DST (Department of Science and Technology), 'Innovation towards a knowledge-based economy: Ten-Year Plan for South Africa (2008–2018)', http://www.esastap.org.za/download/ sa_ten_year_innovation_plan.pdf, accessed 21 January 2015.

⁹⁵ NRF (National Research Foundation), email communication, 25 January 2016.

not fully utilising or maximising the benefits from this geographic advantage, owing to a lack of adequate human capital. This includes the risk that the country may own research platforms and facilities, but could be subject to a form of "knowledge colonization" from international quarters, many of whom already possess a critical mass of skills.⁹⁶ The SANAP funding instrument is designed to ensure the creation of a demographically balanced Antarctic research programme focusing on internationally competitive research, and encourages the creation of links with other African countries.⁹⁷ Funding can include student support in the form of bursaries, where provision is made for 5% of recipients to be from SADC and 4% from the rest for Africa (another 4% could be non-African).

The Department of Public Works (DPW) and the South African Navy are also involved in South Africa's Antarctic programme. The DPW has always been tasked with constructing and maintaining SANAE bases and other structures in Antarctica. The navy and air force provide the DEA with transport support to and from the Prince Edward Islands, Gough Island, Tristan da Cunha and the Antarctic. The 1998 *Defence Review* emphasised that the navy and air force commitment was mainly a result of the country's membership of the Treaty, but it added that marine resources in the areas over which South Africa has sovereignty would grow in importance.⁹⁸ The South African Navy Doctrine, published on 20 October 2006, refers to the Prince Edward Island group over which South Africa has sovereignty, but makes no mention of any role in Antarctica. Several South African Navy ships have the range and capability to carry out emergency work at SANAE IV during high summer.

The *National Defence Review* released in March 2014⁹⁹ reflects the sub-Antarctic Prince Edward Islands as part of the country's strategic defence considerations. Although Antarctica is not mentioned specifically in naval documents, it is implicit in the navy's support to other government departments, such as the Department of Transport.

However, South Africa's navy does need to be augmented to be effective in patrolling its vast maritime space, because of the rise of non-traditional security concerns such as IUU fishing and environmental protection. These will become more important as the scramble for resources moves southwards. South Africa has also submitted two claims to the UN Commission on the Limits of the Continental Shelf – one for the shelf extending from the mainland and another for the shelf around its two sub-Antarctic territories of Marion and Prince Edward Islands. The total area being claimed is 1.9 million km². None of the claims falls south of the 60th parallel South. South Africa's current marine territory is 1.5 million km². If approved, rights to the extended continental shelf will include fishing and mineral

97 Ibid.

⁹⁶ NRF; 'South African National Antarctic Programme (SANAP) Funding Instrument, Knowledge Fields Development, Framework Document', April 2014, p. 7, http://www.nrf. ac.za/sites/default/files/documents/2015%20SANAP%20Framework%20Document.pdf, accessed 21 January 2015.

⁹⁸ Republic of South Africa, *South African Defence Review 1998*, chapter 7, p. 31, http://www.gov.za/documents/south-african-defence-review-1998, accessed 24 January 2016.

⁹⁹ Republic of South Africa, *South African Defence Review 2014*, http://www.gov.za/sites/www.gov.za/files/defencereview_2014_intro.pdf, accessed 24 January 2016.

exploitation. (In April 2013 South Africa declared the Prince Edward Islands an MPA – Africa's first offshore MPA – with a size of 180 000km².) This was also South Africa's first offshore MPA and the seventh-largest MPA in the world. In doing so South Africa was honouring its global commitments in terms of the World Summit on Sustainable Development and the World Parks Congress 'to improve the proportion of our oceans under protection'.¹⁰⁰

South African Minister of Environmental Affairs Edna Molewa expressed the hope that the proclamation of the MPA represented a 'major step forward in the development of a comprehensive network of Marine Protected Areas across the Southern Ocean'.¹⁰¹

In 2012 South Africa's new polar research and supply vessel, the *SA Agulhas II* (*Miriam Makeba*) arrived in South Africa. With far greater research capabilities than the first *Agulhas*, it provided an opportunity for South Africa to strengthen its work under the Antarctic Treaty System, the Madrid Protocol and the CCAMLR.

However, the division of responsibilities between the DEA and DST, with the DEA being responsible for the costs of the logistics trips to the sub-Antarctic islands and Antarctica and the DST for scientific research, has created unintended consequences. Scientists have complained of limited access to the vessel.¹⁰² They also argue that the vessel spends too much time in port focusing primarily on providing logistical support to Gough Island, Marion Island and Antarctica, to the detriment of scientific research. It spends some 154 days (or about five months) a year on these logistical voyages, but has no dedicated planned research time between the voyages. Specifically they argue that the vessel's scientific capability allows the country to take the lead in Southern Ocean research and, as the African country closest to Antarctica, can thus provide an important springboard for African Antarctic science.¹⁰³ However, the DST has no additional budget for separate voyages for scientific research. The scientific budget is allocated to research but there is no specific allocation for the costs of the voyage.

The DEA's Antarctic budgetary allocation falls under its programme on Oceans and Coasts, sub-programme Oceans Conservation. This sub-programme covers the management and conservation of oceans, and sub-Antarctic and Antarctic ocean environments; the development and implementation of ocean policy; the co-ordination of information on the ocean atmosphere; the management of ocean ecosystems; and the management of obligations in relation to regional and international oceans.

Edna Molewa, speech at the WWF SA's 'Gift of the Earth Award 2013' event, Cape Town, 30 April 2013.

¹⁰¹ Ibid.

¹⁰² Treasure AM et al., 'South African research in the Southern Ocean: New opportunities but serious challenges', *South African Journal of Science*, 109, 3–4, January 2013, http://www. sajs.co.za/south-african-research-southern-ocean-new-opportunities-serious-challenges/ anne-m-treasure-coleen-l-moloney-marth%C3%A1n-n-bester-christopher-d-mcquaid-ken-pfindlay-peter-b-best, accessed 11 January 2015.

¹⁰³ Ibid.

TABLE 3THE DEA: OCEANS CONSERVATION SUB-PROGRAMME, 2011/12 TO 2016/17 (ZAR M)					
2011/12 ^a	2012/13 ª	2013/14 ª	2014/15 ^b	2015/16 °	2016/17 °
757.4	351.6	182.5	207.8	206.7	219.6

a Audited outcomes

b Adjusted appropriation

c Medium-term expenditure estimate

Source: National Treasury, 2015 Estimates of National Expenditure, Pretoria, 2015, p. 494

The higher allocations in 2011/12 and 2012/13 are due to the purchase of the *Miriam Makeba* polar research vessel. The total project cost was ZAR 1,429 billion (\$89.3 million), of which ZAR 131.4 million (\$8.2 million) was paid in 2009/10, ZAR 467.3 million (\$29.2 million) in 2010/11, ZAR 643 million (\$40.1 million) in 2011/12, and ZAR 188 million (\$11.8 million) the following year.¹⁰⁴

¹⁰⁴ See National Treasury, 'Estimates of National Expenditure 2013', http://www.treasury.gov.za/ documents/national%20budget/2013/ene/FullENE.pdf, accessed 25 January 2016.

WEAKNESSES IN AND CHALLENGES TO THE ANTARCTIC TREATY

The Antarctic Treaty has been recognised as one of the more successful international agreements and remains in force indefinitely. It has not, however, been without its weaknesses and controversies. These are grouped below in four categories: the 'question of Antarctica'; legal/jurisdictional issues; institutional constraints; and challenges emanating from new commercial opportunities.

THE 'QUESTION OF ANTARCTICA' AND POST-COLONIALISM

Notwithstanding its success, the initial 'closed' and exclusivist nature of the Treaty, combined with the issue of certain states making territorial claims in Antarctica, has been an underlying political weakness to which countries in the developing world in particular have objected over the years.

In the 1950s India questioned the continent's governance regime, and in the 1970s and 1980s Malaysia challenged the assumption of certain states (largely Western or Westernaligned states) to create a closed club ostensibly to protect the continent for science and peace. After all, the countries of the developing world, many of which were still colonies in 1959, were not invited to or represented at the Washington meeting.

The newly independent *India* had expressed an interest in developments in the Antarctic before the adoption of the Treaty in 1959, arguing that the UN needed to consider the question rather than its being decided upon by a small group of states. Then prime minister Jawarhalal Nehru proposed that the question of Antarctica be considered by the UN General Assembly. In 1958 he emphasised that 'we are not challenging anybody's rights there ... The fact that Antarctica contains many important minerals – especially atomic energy minerals – is one reason why this area is attractive to various countries.'¹⁰⁵ Chaturvedi argues that while Nehru's critique 'fell quite short of a direct questioning of the colonial claims and rights', it nevertheless 'challenged in a significant manner the self-assigned authority and legitimacy of a handful of Antarctic powers to conceptualize and construct the nature-science-sovereignty interface for peaceful utilization of Antarctica'.¹⁰⁶

In the 1980s, as part of an initiative led by *Malaysia* and member countries of the Non-Aligned Movement (NAM) and the G-77, there were calls for the international regime of Antarctica to be reappraised. In particular, Malaysia advocated increasing the transparency of the continent's governance and criticised the exclusivity of the system.¹⁰⁷ Malaysia's argument was that Antarctica should be considered as the common heritage

¹⁰⁵ Cited in Dodds K, 2012a, op. cit., p. 63 (Kindle version).

¹⁰⁶ Chaturvedi S, op. cit., p. 55.

¹⁰⁷ Brady A-M, 2012a, op. cit., p. 108.

of all humanity. The final document of the NAM meeting in September 1983 called for a more just and equitable framework for the exploitation and management of Antarctica's resources. Nothing came of this move, and eight years later (in 1991) the Madrid Protocol prohibited the exploitation of mineral resources. Several NAM members are party to the protocol.

Antarctica was on the agenda of the UN General Assembly from 1983 onwards. Initially it was discussed on an annual basis, but from 1996 the matter was discussed every three years, with the simultaneous submission of a report by the UN secretary general for the preceding three years. The 'question of Antarctica' remained on the agenda of the UN General Assembly until 2006, when it was removed.

Dodds and Chaturvedi,¹⁰⁸ among others, have written on the need to position Antarctica within post-colonial¹⁰⁹ studies. In 1996 Chaturvedi argued that 'penetration of both polar regions by the imperial-colonial forces needs to be seen as an extension of a similar but much larger process emanating, at least to begin with, from Europe, and unfolding differently in various parts of the world'.¹¹⁰ However, the involvement of Argentina and Chile as claimant nations in Antarctica made it difficult to present the somewhat elitist nature of the Treaty as a North–South issue.

Overall, those who have challenged the Antarctic Treaty System because of its colonial approach and origins have in a sense been 'co-opted' into the system. Beck argues that India's 'advocacy on behalf of the treaty system has served to disarm the impact of criticism from the developing world'.¹¹¹ However, Chaturvedi questions whether the 'physical and scientific presence of the Asian newcomers on Antarctica since the early 1980s is duly matched by their geopolitical influence within the ATS [Antarctic Treaty System]'.¹¹² Dodds calls for a more systematic examination of 'how Antarctica has been deployed as a site of "white prestige" by states such as Britain, Australia, the United States, and New Zealand'.¹¹³ He argues that more research could be undertaken of how other countries such as Estonia and Romania have defined their involvement in Antarctica in terms of the importance of global citizenship – thus implicitly rejecting 'a notion that some states are somehow more uniquely qualified than others to engage with Antarctica'.¹¹⁴

- 113 Dodds K, 2006, op. cit., p. 69.
- 114 Ibid., p. 69.

¹⁰⁸ See Dodds K, 'Post-colonial Antarctica: An emerging engagement', Polar Record, 42, 2006; Chaturvedi S, The Polar Regions: A Political Geography. Chichester: John Wiley, 1996.

¹⁰⁹ To quote Dodds, the term 'highlights how systems of colonial domination (whether in the form of knowledge production or the prevailing geopolitics of international order) persist in the contemporary era'. See Dodds K, 2006, *op. cit.*

¹¹⁰ Cited in Dodds K, 2006, op. cit., p. 59.

¹¹¹ Cited in Chaturvedi S, 2013, op. cit., p. 59.

¹¹² Ibid., p. 51.

LEGAL/JURISDICTIONAL ISSUES

As international agreements on a variety of issues have evolved, their overlapping mandates with the Antarctic Treaty System have become more apparent, raising the need for closer co-operation and possible streamlining between them. Some of these overlapping treaties include UNCLOS, the Safety of Life at Sea Convention, the UN Framework Convention on Climate Change, the Convention on Migratory Species of Wild Animals, the Convention on International Trade in Endangered Species, and the UN Convention for Biological Diversity, to name a few.¹¹⁵

There are also areas that the Antarctic Treaty does not cover at all. For example, the Treaty does not cover whales. These are dealt with under the International Convention for the Regulation of Whaling established in 1949, which preceded the Treaty. Nevertheless, the enforcement ability of the International Whaling Commission (IWC) has been weak and there is probably sufficient scope within the CCAMLR to include whaling, although such a process is unlikely to be easy.

As issues around food security, fisheries, environment, climate change and oceans governance become more important in global debates, the Antarctic Treaty System needs to deepen collaboration and streamline provisions with organisations such as the UN's Food and Agriculture Organization, the UN Environment Programme and the International Union for Conservation of Nature, among others. (Many of these can already attend meetings of the ATC and the CCAMLR.)¹¹⁶ However, this is easier said than done, particularly as claimant states 'tend to be wary of global environmental instruments such as the Convention on Bio-Diversity, not least because the Antarctic Treaty and its associated legal instruments are assumed to be *primus inter pares*',¹¹⁷ and they worry that developing regulations through global environmental instruments dilute their sovereign rights.

Another area of potential tension within the Antarctic Treaty System is the continental shelf delimitation in the Antarctic. Article 76 of UNCLOS allows for coastal states to make claims to sovereignty over submarine coastal shelves. Those states that claim parts of Antarctica have already made full or partial submissions to the UN Commission on the Limits of the Continental Shelf, as provided for in Article 76.¹¹⁸

Australia's submission, the first made by a claimant state, in 2004, included the continental shelf in the area it claims in Antarctica but asked the commission to refrain from making a ruling on this aspect of its claim. On the other hand, New Zealand and the UK made partial submissions while reserving their rights to make additional claims. France has also made a partial submission, as has Norway (where its claim on Dronning Maud Land in Antarctica was included). Argentina's submission included parts of the Antarctic Peninsula, but did

¹¹⁵ Haward M, 'Challenges, coordination, and congruity', in Brady A-M (ed.), 2013, *op. cit.*, p. 22.

¹¹⁶ Triggs G, op. cit., p. 47.

¹¹⁷ Dodds K, 2012a, op. cit., p. 130.

¹¹⁸ Joyner C, 'Potential challenges to the Antarctic Treaty', in Berkman PA et al. (eds), op. cit.

not include a request that the commission refrain from considering the Antarctic part of its submission.¹¹⁹ Chile submitted a 'preliminary information' statement.¹²⁰

A number of non-claimant states lodged responses regarding the claims of the claimant states. These included Japan, Russia, the Netherlands and the US.¹²¹ States that submitted *notes verbales* to the UN reiterated that territorial claims ('and consequently, rights to the water, seabed or subsoil of the submarine areas adjacent to the Antarctic continent) are not recognised'.¹²² There is a view that 'coastal states' do not exist in Antarctica given the Treaty's provisions.¹²³

A related legal challenge regarding the temptation claimant states face to exercise jurisdiction over territory in Antarctica is illustrated most notably in the political tensions that have arisen over the last decade between Japan and Australia around whaling. In the case of *Humane Society International v. Kyodo Senpaku Kaisha Ltd* brought before the Federal Court of Australia, the court found that Japanese whaling in the Australian Whale Sanctuary within Australia's Antarctic Territory was illegal. An injunction was issued against the company forbidding it from further whaling in the area, but the Australian government chose not to enforce it. Article VIII of the Treaty limits the contracting parties' jurisdiction over acts and persons within their claimed Antarctic territories to their nationals only.¹²⁴ Seeking to enforce the Treaty against non-nationals would have been a violation of the Treaty provisions.

A major criticism of the Treaty's legal regime is that it does not apply to non-Treaty parties or to all activities, including whaling, in the Treaty area. Legal scholars have disputed this view, pointing out that Article X of the Treaty provides for a political process to censure even non-state entities if they engage in activities contrary to the principles and purposes of the Treaty, including ignoring the ban on mineral exploitation (there is no evidence that the effectiveness of the ban has been tested).¹²⁵ The 1991 agreement by parties to the Treaty and the Madrid Protocol to ban any exploitation for 50 years should be sufficient to curb any such activity, at least until 2048, unless for some reason the parties decide to dissolve the Treaty.¹²⁶

¹¹⁹ Weber M, 'Delimitation of the continental shelves in the Antarctic Treaty area', in Hemmings AD, Rothwell DR & KN Scott (eds), *Antarctic Security in the Twenty-First Century*. London & New York: Routledge, 2012, p. 178.

¹²⁰ For more detail see Joyner C, op. cit., pp. 97-98.

¹²¹ Weber M, op. cit., p. 185.

¹²² Ibid., p. 181.

¹²³ Rothwell DR, 'The polar regions and the law of the sea', in Powell RC & K Dodds (eds), *Polar Geopolitics*. Cheltenham and Northampton: Edward Elgar, 2014, p. 13.

¹²⁴ Triggs G, op. cit., pp. 45-46.

¹²⁵ Stemmet A, Senior State Law Adviser (International Law), DIRCO (Department of International Relations and Cooperation), personal communication, 15 July 2013.

¹²⁶ Skinner R, South African Department of the Environment, email communication, 3 August 2013.

Others have referred to the principle of moral suasion in enforcing Treaty and Lisbon Protocol principles,¹²⁷ and the acceptance among non-parties of the prohibition and principles of the Antarctic Treaty System.¹²⁸

The new challenges arising from potential commercial opportunities, as well as global interest in the Antarctic, have resulted in more states advocating that Antarctica should be regarded as a common heritage for all mankind. Other proposals have included declaring Antarctica a world park (Second World Congress on National Parks, 1972) or placing it under a UN Trusteeship Council.¹²⁹ In discussing the Antarctic's commercial opportunities, it is important to distinguish between the idea of a world park and a common heritage of mankind.¹³⁰ A future change in the Antarctic's global governance regime where the common heritage concept becomes dominant would mean recognising that the continent's natural resources could be used for the betterment of the human condition. In contrast, the concept of Antarctica as a world park would entail no such exploitation but rather a focus only on scientific research and the retention of its pristine environment.

A common heritage of mankind from which all states can derive benefit has not necessarily disappeared from the debate, even where certain states that championed such an argument have now joined the Treaty. The fact is that it would raise a number of contentious and practically and legally difficult issues. Some of these are already apparent in activities such as biological prospecting, fisheries and tourism.

INSTITUTIONAL CONSTRAINTS

For most of its existence, the Antarctic Treaty System operated without a permanent secretariat, which was only established in 2004. It took some 12 years (from 1992 to 2004) to decide on its location. It would not be an exaggeration to argue that the consultative parties displayed a lack of willingness or urgency to strengthen the Treaty's institutions. (Interestingly, South Africa had proposed the establishment of a secretariat, which could

¹²⁷ Cowan D, Director, Geonomics Research Institute, University of Pretoria, telephonic interview, 24 July 2013.

¹²⁸ Weber M, op. cit., p. 192.

¹²⁹ Verbitsky J, 'Antarctica: Common resource or developer's dream?', 2009, p. 9 (draft).

¹³⁰ See Baslar K, *The Concept of the Common Heritage of Mankind in International Law*. The Hague: Martinus Nijhoff Publishers, 1998. Frakes identified five components of the common heritage of humanity concept: (1) no private or public appropriation is allowed, ie, no one legally owns common heritage spaces; (2) representatives from all nations must manage resources contained in such a territorial or conceptual area on behalf of all since a commons area is considered to belong to everyone; (3) all nations must actively share the benefits acquired from exploitation of the resources from the commons heritage region; (4) no weaponry or military installations are allowed; and (5) the commons should be preserved for the benefit of future generations, and to avoid a 'tragedy of the commons' scenario. See Frakes J, 'The common heritage of mankind principle and the deep seabed, outer space, and Antarctica: Will developed and developing nations reach a compromise?'. *Wisconsin International Law Journal*, 21, 2003, p. 409.

be hosted by it, very soon after the Treaty came into force in 1961. However, certain countries, particularly Argentina and Chile, did not support it because of concerns regarding the 'further institutionalisation and internationalisation of the Antarctic'.)¹³¹

Fearing that a secretariat might rival the powers of the parties, the parties have made the Secretariat subordinate to the ATCM held annually. The Secretariat, based in Buenos Aires (itself contentious given the dispute between the UK and Argentina over the Falkland/ Malvinas Islands and South Georgia), has no legal persona. It also has a small budget, amounting in 2013/14 to just over \$1.3 million and inching up to \$1.381 million in 2016/17.¹³² Compounding the Secretariat's meagre resources is the fact that most signatory states themselves have limited human and financial resources allocated to Antarctic matters and to ensure compliance with reporting and information exchange, as set out in the Treaty. The executive secretary, for example, cannot accept invitations to conferences without the express authorisation of the ATCM. The impracticality of this is obvious since the ATCM sits only once a year.

A former executive secretary of the Antarctic Secretariat, Johannes Huber, argues that the regulatory regime has in fact outstripped the capacity of parties to implement it, and the parties display disinterest in the 'practical questions of ensuring its implementation or even its maintenance as a clear and consistent set of regulations'.¹³³ The Treaty relies for implementation entirely on the individual governments that are party to it. The inspection regime is based on the right of all consultative parties to inspect 'anywhere or anytime', but there is no overarching enforcement mechanism.

Others have made a stronger point about the Treaty's weakness, that 'with their unwieldy structure, the treaty and associated instruments appear inadequate to deal with the many new challenges'.¹³⁴ There is also a complaint that the Treaty is 'an antiquated gentleman's agreement desperately in need of reform'.¹³⁵ This criticism concerns the effect of the two-tier membership – between consultative parties and non-consultative parties – and the potential danger it represents. Indeed, the arrangement may prove inadequate should countries such as Pakistan (acceded to the Treaty and the Madrid Protocol) and Malaysia (acceded to the Treaty only) that are not consultative parties, and Iran (which intends to set up a base in Antarctica but has not committed itself to the Treaty or the Madrid Protocol) join other countries that have announced their interest in accessing Antarctic

¹³¹ Dodds K, 'The Antarctic Peninsula: Territory, sovereignty watch and the "Antarctic problem", in Hemmings AD, Rothwell DR & KN Scott (eds), Antarctic Security in the Twenty-First Century: Legal and Policy Perspectives. London & New York: Routledge, 2012b, p. 110 (Kindle).

¹³² ATS, Decision 2 (2014), Annex 2, http://www.ats.aq/documents/recatt/att558_e.pdf, accessed 17 October 2014; ATS, 'Secretariat Programme 2015/16', http://www.ats.aq/documents/ recatt/att585_e.pdf, accessed 12 October 2015.

¹³³ Huber J, 'The Antarctic Treaty: Towards a new partnership', in Berkman PA *et al.* (eds), *op. cit.*

¹³⁴ Brady A-M, 'Diplomatic chill: Politics trumps science in Antarctic Treaty System', World Politics Review, 19 March 2013, pp. 9–14.

¹³⁵ Ibid.

mineral resources. Such countries include Belarus, India, Russia, South Korea and China, all of which are parties to the Madrid Protocol. So far, their intentions remain untested, largely because of the high costs involved in Antarctic mineral exploitation and its uncertain returns.

COMMERCIAL OPPORTUNITIES

The Treaty clearly rules out the use of Antarctica for commercial gain. However, over the years new opportunities, such as biological prospecting, which the Treaty does not expressly prohibit, have arisen. In other instances old challenges to the system, such as whaling, which falls under a different legal regime, continue to pose difficulties.

BIOLOGICAL PROSPECTING

Biological prospecting refers to the exploration of raw materials in Antarctica that would be valuable for pharmaceutical and other industries, which material may also only exist on the continent because of its particular climatic circumstances. Biological prospecting highlights the tension between public science and private commercial interest. Currently, the Antarctic Treaty System and UNCLOS do not provide a clear framework for its regulation.

Some 200 research organisations and companies from 27 states are doing research in Antarctica for commercially beneficial genetic and biochemical resources. However, the express purpose of the Treaty is the free exchange of information for scientific research among the research community. Joyner raises two questions in this regard:¹³⁶

First, can the desire to ensure commercial confidentiality and patent protection be reconciled with the legal requirements of scientific exchange and cooperation in the treaty's Article III? Second, can intellectual property rights be preserved as a useful means for promoting and encouraging the exchange of scientific information?

Joyner argues further that the absence of a consensus definition on biological prospecting as a research activity, as well as who has the authority to determine access to genetic resources, may pose additional challenges to the Antarctic Treaty System. There is also the question of monetary benefit and how that might be shared, or whether there should be a common fund from which all could benefit.¹³⁷ South Africa has not expressed a strong opinion on Antarctic bio-prospecting, although there is a potential link with the country's 'indigenous medicine' approach that argues for the protection of such knowledge.

MINERAL EXPLOITATION

An additional challenge relates to mining opportunities (including oil and gas) that may become more viable as the ice melts. In the preparation of this paper the views of a

¹³⁶ Joyner C, op. cit., p. 99.

¹³⁷ Ibid., p. 99.

number of South African specialists, government officials and scientists were canvassed on whether this was a possibility. Legal aspects aside, those interviewed were unanimous that factors such as the inaccessibility and unknown quantities of the minerals in Antarctica, taken with the extreme climate, distance from markets, logistics, cost of exploitation and provision of accommodation for workers (who could operate only during the relatively short Antarctic summer), made it highly unlikely that mineral exploitation would be seriously considered by ATPs or indeed any other countries – a view shared by at least one Australian authority.¹³⁸

Whether commercial interests would be prepared to expose their human and other resources to such threats thus seem doubtful. Furthermore, hydraulic fracturing (fracking), mainly in North America, and the discovery of new deposits of oil and gas in East and West Africa and elsewhere are causing a major review of the long-held view that global oil and gas resources will soon run out.

WHALING

The continued operation of Japanese whalers in the Southern Ocean remains an ongoing challenge to the Antarctic Treaty's objectives, although Japan argues that its activities are in the interests of scientific research. Whaling falls within the ambit of the IWC. In 1986 the IWC adopted a moratorium on commercial whaling, which is still in place today. In 1994 it created the Southern Ocean Whale Sanctuary, made up of nearly the entire Antarctic Southern Ocean. All commercial whaling is prohibited within its borders, but Japan began a whale research programme under special permit in Antarctica in 2006.

States opposing Japan's whaling activities have argued that the scale of whaling is disproportionate to what is required for scientific research.¹³⁹

On 26 June 2013 the ICJ in The Hague began hearing arguments by Australia, which requested the court to order Japan to cease whaling in the Antarctic, both Australia and Japan having accepted the compulsory jurisdiction of the court.¹⁴⁰ The court handed down judgement on 31 March 2014, stating that Japan's whaling operations in Antarctica did not fulfil the purpose of scientific research under the statute that governs the work of

¹³⁸ Bergin A et al., op. cit., pp. 16–17; ASPI (Australian Strategic Policy Institute), Strategic Insights, 'Cold calculations: Australia's Antarctic challenges,' October 2013, https://www.aspi. org.au/publications/strategic-insights-66-cold-calculations-australias-antarctic-challenges/ SI66_Antarctic.pdf, accessed 22 April 2014.

¹³⁹ Mossop J, 'The security challenges posed by scientific permit whaling and its opponents in the Southern Ocean', in Hemmings AD, Rothwell DR & KN Scott (eds), *op. cit.*, p. 308.

¹⁴⁰ ICJ (International Court of Justice), 'Public hearings in the case concerning whaling in the Antarctic (Australia v. Japan: New Zealand intervening)'. Press Release. The Hague: ICJ, http://www.icj-cij.org/docket/files/148/17380.pdf; ICJ, 'Declarations recognizing the jurisdiction of the court as compulsory'. The Hague: ICJ, http://www.icj-cij.org/ jurisdiction/?p1=5&p2=1&p3=3, accessed 2 September 2013.

the IWC.¹⁴¹ Japan, which initially agreed to abide by the ruling and to terminate whaling forthwith, cancelled the 2014 hunt. On 18 April 2014, however, the Japanese Minister of Agriculture, Yoshimasa Hayashi, announced that Japan would submit a new plan to the IWC that would enable 'scientific whaling' to resume in 2015, while honouring the court's ruling.¹⁴² It is worth noting that South Africa has been a party to the IWC since its inception and has strict legislation to protect whales within its 200 sea mile exclusive economic zone.¹⁴³

The difficulty faced by existing whaling institutions to enforce decisions has created a space for court cases such as that by the Humane Society International. While there is room within existing Antarctic Treaty System arrangements to incorporate whaling into their remit (the legal instrument most relevant to whaling activities being the Madrid Protocol), the existing institutional shortcomings relating to weak inspection and enforcement mean that this would not necessarily resolve the problem.

FISHING

Exploitation of fish in Antarctica has had a long history, but accelerated from the 1960s onwards when the main fishing fleets came from the Soviet bloc. Among the most vulnerable fish that have been exploited more recently are Patagonian toothfish, which reproduce at very slow rates.¹⁴⁴ The CCAMLR introduced conservation measures to sustain the marine eco-systems around Antarctica in 1982. It covers not only territories below 60° South but also the Antarctic Convergence, which includes some of the sub-Antarctic islands such as the Prince Edward Islands, over which South Africa has sovereignty. The adoption of the CCAMLR was driven by the acceleration in exploitation of marine resources, especially krill. The convention prohibits certain species from being exploited and sets total allowable catches. However, IUU fishing in the Antarctic has not been eradicated, with some of the major offenders being members of the CCAMLR. Because fishing is such a lucrative trade the incentives to enforce the convention to the letter are limited. There is also the problem posed by third parties that have not signed up to the CCAMLR and that engage in unregulated fishing.

¹⁴¹ Kampmark B, 'Whaling contradictions: Japan, Australia and the International Court of Justice', International Policy Digest, 6 April 2014, http://www.internationalpolicydigest. org/2014/04/06/whaling-contradictions-japan-australia-international-court-justice/_ accessed 12 October 2015; Cabrera E, 'Whales in the courtroom: The historic ruling of the International Court of Justice against Japanese scientific whaling in Antarctica', Journal of Antarctic Affairs, 1, March 2015, p. 34.

¹⁴² Fackler M, 'Japan plans to resume whaling program, with changes to address court concerns', *New York Times*, 18 April 2014, http://www.nytimes.com/2014/04/19/world/asia/ japan-says-it-will-resume-whaling-off-antarctica.html?_r=0, accessed 23 April 2014.

¹⁴³ DIRCO, 'The International Whaling Commission (IWC)', http://www.dirco.gov.za/foreign/ Multilateral/inter/iwc.htm, accessed 24 January 2016. The Southern Right Whale population has been growing steadily at a rate of 7% a year off South Africa's coastline.

¹⁴⁴ Dodds, 2012a, op. cit., pp. 115–119.

Fishermen are also targeting Antarctic toothfish, which are found mainly in the Ross Sea. The CCAMLR allows industry to harvest half the toothfish population by 2035, while the Marine Stewardship Council has certified certain toothfish fisheries as sustainable. But scientists have argued that this decision is problematic because of the lack of knowledge about the species and its breeding habits. The toothfish dilemma is reminiscent of other conservation/protected species debates. South Africa could take an ethical stance on this consistent with its efforts to protect other vulnerable species such as the rhino and abalone.

MARINE PROTECTED AREAS

Another source of tension among ATPs relates to the establishment of MPAs, which again carries commercial undertones. In 2005, the CCAMLR agreed to the establishment of a system of MPAs in the Southern Ocean by 2012. In 2011 it also adopted a general framework for the establishment of CCAMLR MPAs.

However, this process has been marred since 2012 by disputes over the interpretation of the mandate of the CCAMLR and the intention of MPAs, as well as accusations against claimant states that MPA proposals are being used as tools for 'asserting sovereignty or geopolitical control'.¹⁴⁵

In 2011 the US and New Zealand introduced separate proposals for an MPA in the Ross Sea. Australia and France proposed the establishment of an MPA in east Antarctica. At the CCAMLR meeting in 2011 South Africa endorsed the basis upon which the latter had been made.¹⁴⁶ Since the proposals have been tabled, the parties have undertaken a significant amount of further research and discussions. At the time of writing, the proposals had yet to be accepted. Key objections were lodged by Russia and China and included the following:¹⁴⁷

- The CCAMLR did not have the authority to establish MPAs, but rather needed to refer these to the International Maritime Organisation and the ATCM.
- The two proposals were an attempt by coastal states to exercise 'sovereignty, sovereign rights or jurisdiction on the high seas'.
- The scientific rationale was untenable, and more work needed to go into the research regarding their establishment.
- In the proposed Ross Sea MPA, the motive was to create a monopoly on toothfish fishing for New Zealand and other members (claimed by Russia).

South Africa's stance, which has supported Russia's position, is based on similar reasoning; that in fact the scientific evidence was not thorough and that the argument was motivated

145 CCAMLR (Commission for the Conservation of Antarctic Marine Living Resources), 'Report of the 33rd Meeting of the Commission', Hobart, Australia, 20–31 October 2014, p. 55.

147 CCAMLR, 2014, op. cit., pp. 44-60.

 ¹⁴⁶ CCAMLR, 'Report of the 30th Meeting of the Commission', Hobart, Australia, 24 October –
4 November 2011, p.15.

by the proposers' claimant status (New Zealand and Australia) rather than by any environmental imperatives.¹⁴⁸ The director of the Pew Charitable Trusts' Southern Ocean sanctuaries project attributed Russia's blocking of the resolution to the pursuit of its own fishing interests.¹⁴⁹

TOURISM

Unregulated tourism is another activity that poses a major threat to the pristine nature of Antarctica. The original treaty did not provide for the regulation of tourism, given the inhospitable terrain. However, tourism to Antarctica has grown significantly in the past two decades, with tourist numbers in the 2014/15 summer season reaching some 37 000 compared to just over 4 000 in 1991/92.¹⁵⁰ Much of the tourism is ship-based, but there is also a growing interest in land-based tourism.¹⁵¹ Although some research stations provide accommodation for land-based tourists, the issue remains controversial, particularly because the infrastructure for tourism on land is virtually non-existent.

The International Association of Antarctica Tour Operators (IAATO) was established in 1991 to promote 'safe and environmentally responsible' travel to the continent. The group now has over 100 members. However, it is not compulsory for tour operators to be members of IAATO, and even members of IAATO are not compelled to adhere to ATS guidelines. Organisations such as the Antarctic and Southern Ocean Coalition believe that the industry should not be left to regulate itself. Several attempts have been made by parties to the Antarctic Treaty to adopt regulations governing tourism, but to date nothing has come into force. At the 2009 ATCM the parties agreed to impose mandatory limits on the size of cruise ships making landings in Antarctica and the number of passengers they can bring ashore. A further resolution placed a mandatory shipping code on vessels in Antarctica, boosting shipping safety efforts underway at the International Maritime Organisation, while another one enhanced environmental protection for the entire Antarctic ecosystem. However, these will only become legally binding once ratified by each of the 28 countries that have signed the Antarctic Treaty.

In the past South Africa was not too concerned about tourism, but as it tries to market Cape Town as an air bridge to Antarctica, some form of regulation is becoming necessary. In terms of Annex 6 of the Treaty, the liability for any activity launched from the territory of South Africa rests with it. The DEA is currently working with the Department of Tourism to develop a tourism policy for Antarctica.

¹⁴⁸ Official, Department of Environmental Affairs, interview, 2 September 2015.

¹⁴⁹ Milman O, 'Delegates frustrated as talks to create huge Antarctic marine reserves fail', *The Guardian*, 1 November 2013, http://www.theguardian.com/environment/2013/nov/01/ antarctic-marine-reserve-talks-fail, accessed 22 April 2014.

¹⁵⁰ IAATO (International Association of Antarctica Tour Operators), 'Tourism statistics', http://iaato.org/tourism-statistics, accessed 7 February 2016.

¹⁵¹ Dodds K, 'Governing Antarctica: Contemporary challenges and the enduring legacy of the 1959 Antarctic Treaty', *Global Policy*, 1, 1, January 2010, p. 113.

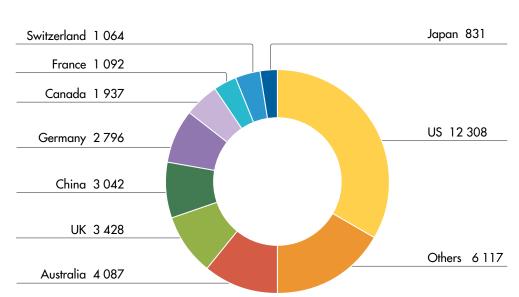


FIGURE 3 TOURISTS BY NATIONALITY 2014–2015

Source: IAATO (International Association of Antarctica Tour Operators), 'Tourists by nationality', http://iaato.org/documents/10157/1017626/Tourists+by+Nationality+-+Total.pdf/9a175577-5e15-4ee8-97d4-5a4327c4ea25

CONCLUSION AND RECOMMENDATIONS

Over the years, as more countries have joined the Antarctic Treaty System, it has become apparent that newer players, especially from the developing world, have different approaches to both the governance regime and the degree to which Antarctica's natural resources can be exploited. This tension, compounded by the growing difficulty around the issue of sovereign neutrality,¹⁵² may have significant implications for the Treaty system.

The discussion on the challenges facing the Antarctic Treaty System must be understood in the context of a changing power dynamic in international relations, where countries such as China and India will increasingly seek to assert their rights in international institutions that were established when they were still weak or colonies.

While, at one level, the Antarctic Treaty System was meant to avoid becoming part of the broader security challenges facing the world during the Cold War, thus adopting the approach of peaceful research, the system is fundamentally political. The 'parked' issue of claimant states has always ensured this (irrespective of the spirit of co-operation that has by and large characterised the Treaty). Shifts in global power, tensions over protecting the global commons and the institutions that should govern them, and the related rise in non-traditional security threats such as climate change have only made the context more political.

South Africa should thus consider its interests in the white continent and in the oceans around it. These interests should not be narrowly defined, but should rather emphasise upholding the central elements of the Treaty, and preserving the continent's pristine nature, both terrestrial and marine. To achieve this will require that states sharing similar objectives construct coalitions around common interests. The difficulty of achieving this, however, is highlighted by the failed attempt to create two MPAs in the Antarctic Convergence over the last few years. Power politics, residual historical rivalries and commercial interests (both current and future) have combined to turn a proposal to protect marine life in a sustainable fashion into a political football. Ironically, the brilliance of Article IV of the Treaty in putting sovereignty claims in abeyance does not always ensure sovereign claims are not perceived to drive certain agendas.

To embellish its reputation as a major player from the global South, South Africa must continue to take an active role in scientific research in the southernmost continent. Through high-quality Antarctic research South Africa's enhanced scientific prestige can provide a platform for greater influence on the trajectory of the Treaty.

South Africa's long-standing presence in Antarctica should be used as a catalyst to cultivate more interest in science and technology among its budding scientists, in the same way that the Square Kilometre Array is being positioned regarding space science. In this regard,

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¹⁵² Triggs G, op. cit.

South Africa has built up strong science and technology co-operation across boundaries on a variety of issues. Antarctica is a vast, still-unexplored continent. South Africa should focus greater energy on making the SANAE IV base a hub for African research and science to encourage scientists from across the continent to undertake research there. This could advance a significant objective highlighted in the NRF strategic document on SANAP: that of 'decolonising' knowledge. Cape Town is already regarded as one of five official 'gateway cities' to the Antarctic. The city currently provides logistical and scientific support to vessels from nine countries (Belgium, Finland, Germany, India, Japan, Norway, Russia, Sweden and the UK) for their Antarctic and Southern Ocean expeditions. These efforts should be magnified and an African centre of excellence on Antarctica and the Southern Ocean be established (an African Polar Institute), which should help to encourage more widespread African-generated research in Antarctica on climate change, space, weather and marine science. Such an institute could also cultivate research linkages with initiatives in the Arctic.

Equally, South Africa should continue its active involvement in the Treaty's political and legal administration. In this it must recognise that there will be competition for attention from matters of apparent greater moment, such as the African Agenda, the nation's peacekeeping role and other multilateral issues, but these should not detract from policy innovation on Antarctic matters. An innovative approach and understanding of Antarctica could, in fact, as pointed out earlier, assist in strengthening South Africa's credentials as a leading African state and multilateral reformer.

While Antarctica is not a foreign policy priority for South Africa or for many other developing countries of the South, the South African government should, whenever possible, in multilateral forums and bilateral commission meetings seek to impress upon fellow states of the South the importance of abiding by the provisions of the Treaty and its additional conventions, in order to achieve the aim of Antarctica's remaining 'a natural reserve, devoted to peace and science'.

In terms of the Treaty's institutional reform, South Africa should push for a betterresourced Secretariat in order for the Treaty's provisions to be implemented and policed more effectively. The Secretariat should also be given a degree of autonomy. This would not need to erode the power of the consultative parties but it would go some way to making the administrative running of the Treaty system more efficient. As part of further opening up the Antarctic Treaty System and mitigating its exclusivist origins, the next executive secretary should be appointed from a developing country, and South Africa should actively pursue this with other states.

Broadening the ownership of the Treaty and making it globally inclusive are vital. Some of the institutional shortcomings and challenges need to be addressed so as to limit the extent to which Antarctica becomes a plaything of geopolitics and new resource scrambles. Within the country's own Antarctic arrangement, the South African government should reinstate the Antarctic Management Committee, which used to be chaired by the director general of environmental affairs and in which defence, public works and DIRCO were members. The committee could be modified to be chaired by DIRCO at the director general or deputy director general level, with the DEA, DST, DPW and defence participating. The Antarctic system should receive political attention rather than be managed at a bureaucratic level by desk officers alone.

Incomplete and conflicting as the provisions of the various international agreements affecting Antarctica may be, there is some cause for optimism that the spirit of the Antarctic Treaty and its declaration of the southern continent as a 'zone of peace and co-operation' are secure for the foreseeable future. Nevertheless, this paper has highlighted the acceleration of activity and interest in Antarctica, albeit most for ostensibly scientific reasons, and the potential challenges to the Treaty. Thus assumptions about the Treaty's future should not be characterised by complacency.

APPENDICES

A THE ANTARCTIC TREATY

The Governments of Argentina, Australia, Belgium, Chile, the French Republic, Japan, New Zealand, Norway, the Union of South Africa, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America,

Recognizing that it is in the interest of all mankind that Antarctica shall continue for ever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Acknowledging the substantial contributions to scientific knowledge resulting from international cooperation in scientific investigation in Antarctica;

Convinced that the establishment of a firm foundation for the continuation and development of such cooperation on the basis of freedom of scientific investigation in Antarctica as applied during the International Geophysical Year accords with the interests of science and the progress of all mankind;

Convinced also that a treaty ensuring the use of Antarctica for peaceful purposes only and the continuance of international harmony in Antarctica will further the purposes and principles embodied in the Charter of the United Nations;

Have agreed as follows:

ARTICLE I

- 1 Antarctica shall be used for peaceful purposes only. There shall be prohibited, inter alia, any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out of military maneuvers, as well as the testing of any type of weapons.
- 2 The present Treaty shall not prevent the use of military personnel or equipment for scientific research or for any other peaceful purpose.

ARTICLE II

Freedom of scientific investigation in Antarctica and cooperation toward that end, as applied during the International Geophysical Year, shall continue, subject to the provisions of the present Treaty.

ARTICLE III

- 1 In order to promote international cooperation in scientific investigation in Antarctica, as provided for in Article II of the present Treaty, the Contracting Parties agree that, to the greatest extent feasible and practicable:
 - (a) information regarding plans for scientific programs in Antarctica shall be exchanged to permit maximum economy and efficiency of operations;
 - (b) scientific personnel shall be exchanged in Antarctica between expeditions and stations;
 - (c) scientific observations and results from Antarctica shall be exchanged and made freely available.
- 2 In implementing this Article, every encouragement shall be given to the establishment of cooperative working relations with those Specialized Agencies of the United Nations and other international organizations having a scientific or technical interest in Antarctica.

ARTICLE IV

- 1 Nothing contained in the present Treaty shall be interpreted as:
 - (a) a renunciation by any Contracting Party of previously asserted rights of or claims to territorial sovereignty in Antarctica;
 - (b) a renunciation or diminution by any Contracting Party of any basis of claim to territorial sovereignty in Antarctica which it may have whether as a result of its activities or those of its nationals in Antarctica, or otherwise;
 - (c) prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any other State's right of or claim or basis of claim to territorial sovereignty in Antarctica.
- 2 No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force.

ARTICLE V

- 1 Any nuclear explosions in Antarctica and the disposal there of radioactive waste material shall be prohibited.
- 2 In the event of the conclusion of international agreements concerning the use of nuclear energy, including nuclear explosions and the disposal of radioactive waste material, to which all of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX are parties, the rules established under such agreements shall apply in Antarctica.

ARTICLE VI

The provisions of the present Treaty shall apply to the area south of 60° South Latitude, including all ice shelves, but nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within that area.

ARTICLE VII

- 1 In order to promote the objectives and ensure the observance of the provisions of the present Treaty, each Contracting Party whose representatives are entitled to participate in the meetings referred to in Article IX of the Treaty shall have the right to designate observers to carry out any inspection provided for by the present Article. Observers shall be nationals of the Contracting Parties which designate them. The names of observers shall be communicated to every other Contracting Party having the right to designate observers, and like notice shall be given of the termination of their appointment.
- 2 Each observer designated in accordance with the provisions of paragraph 1 of this Article shall have complete freedom of access at any time to any or all areas of Antarctica.
- 3 All areas of Antarctica, including all stations, installations and equipment within those areas, and all ships and aircraft at points of discharging or embarking cargoes or personnel in Antarctica, shall be open at all times to inspection by any observers designated in accordance with paragraph 1 of this Article.
- 4 Aerial observation may be carried out at any time over any or all areas of Antarctica by any of the Contracting Parties having the right to designate observers.
- 5 Each Contracting Party shall, at the time when the present Treaty enters into force for it, inform the other Contracting Parties, and thereafter shall give them notice in advance, of
 - (a) all expeditions to and within Antarctica, on the part of its ships or nationals, and all expeditions to Antarctica organized in or proceeding from its territory;
 - (b) all stations in Antarctica occupied by its nationals; and
 - (c) any military personnel or equipment intended to be introduced by it into Antarctica subject to the conditions prescribed in paragraph 2 of Article I of the present Treaty.

ARTICLE VIII

1 In order to facilitate the exercise of their functions under the present Treaty, and without prejudice to the respective positions of the Contracting Parties relating to jurisdiction over all other persons in Antarctica, observers designated under paragraph 1 of Article VII and scientific personnel exchanged under subparagraph 1(b) of Article III of the Treaty, and members of the staffs accompanying any such persons, shall be subject only to the jurisdiction of the Contracting Party of which they are nationals in respect of all acts or omissions occurring while they are in Antarctica for the purpose of exercising their functions.

2 Without prejudice to the provisions of paragraph 1 of this Article, and pending the adoption of measures in pursuance of subparagraph 1(e) of Article IX, the Contracting Parties concerned in any case of dispute with regard to the exercise of jurisdiction in Antarctica shall immediately consult together with a view to reaching a mutually acceptable solution.

Article IX

- 1 Representatives of the Contracting Parties named in the preamble to the present Treaty shall meet at the City of Canberra within two months after the date of entry into force of the Treaty, and thereafter at suitable intervals and places, for the purpose of exchanging information, consulting together on matters of common interest pertaining to Antarctica, and formulating and considering, and recommending to their Governments, measures in furtherance of the principles and objectives of the Treaty, including measures regarding:
 - (a) use of Antarctica for peaceful purposes only;
 - (b) facilitation of scientific research in Antarctica;
 - (c) facilitation of international scientific cooperation in Antarctica;
 - (d) facilitation of the exercise of the rights of inspection provided for in Article VII of the Treaty;
 - (e) questions relating to the exercise of jurisdiction in Antarctica;
 - (f) preservation and conservation of living resources in Antarctica.
- 2 Each Contracting Party which has become a party to the present Treaty by accession under Article XIII shall be entitled to appoint representatives to participate in the meetings referred to in paragraph 1 of the present Article, during such time as that Contracting Party demonstrates its interest in Antarctica by conducting substantial scientific research activity there, such as the establishment of a scientific station or the despatch of a scientific expedition.
- 3 Reports from the observers referred to in Article VII of the present Treaty shall be transmitted to the representatives of the Contracting Parties participating in the meetings referred to in paragraph 1 of the present Article.
- 4 The measures referred to in paragraph 1 of this Article shall become effective when approved by all the Contracting Parties whose representatives were entitled to participate in the meetings held to consider those measures.
- 5 Any or all of the rights established in the present Treaty may be exercised as from the date of entry into force of the Treaty whether or not any measures facilitating the exercise of such rights have been proposed, considered or approved as provided in this Article.

ARTICLE X

Each of the Contracting Parties undertakes to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in Antarctica contrary to the principles or purposes of the present Treaty.

ARTICLE XI

- 1 If any dispute arises between two or more of the Contracting Parties concerning the interpretation or application of the present Treaty, those Contracting Parties shall consult among themselves with a view to having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice.
- 2 Any dispute of this character not so resolved shall, with the consent, in each case, of all parties to the dispute, be referred to the International Court of Justice for settlement; but failure to reach agreement on reference to the International Court shall not absolve parties to the dispute from the responsibility of continuing to seek to resolve it by any of the various peaceful means referred to in paragraph 1 of this Article.

ARTICLE XII

- 1(a) The present Treaty may be modified or amended at any time by unanimous agreement of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX. Any such modification or amendment shall enter into force when the depositary Government has received notice from all such Contracting Parties that they have ratified it.
- (b) Such modification or amendment shall thereafter enter into force as to any other Contracting Party when notice of ratification by it has been received by the depositary Government. Any such Contracting Party from which no notice of ratification is received within a period of two years from the date of entry into force of the modification or amendment in accordance with the provisions of subparagraph 1(a) of this Article shall be deemed to have withdrawn from the present Treaty on the date of the expiration of such period.
- 2(a) If after the expiration of thirty years from the date of entry into force of the present Treaty, any of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX so requests by a communication addressed to the depositary Government, a Conference of all the Contracting Parties shall be held as soon as practicable to review the operation of the Treaty.
- (b) Any modification or amendment to the present Treaty which is approved at such a Conference by a majority of the Contracting Parties there represented, including a majority of those whose representatives are entitled to participate in the meetings provided for under Article IX, shall be communicated by the depositary Government to all the Contracting Parties immediately after the termination of the Conference and shall enter into force in accordance with the provisions of paragraph 1 of the present Article.
- (c) If any such modification or amendment has not entered into force in accordance with the provisions of subparagraph 1(a) of this Article within a period of two years after the date of its communication to all the Contracting Parties, any Contracting Party may at any time after the expiration of that period give notice to the depositary Government of its withdrawal from the present Treaty; and such withdrawal shall take effect two years after the receipt of the notice by the depositary Government.

ARTICLE XIII

- 1 The present Treaty shall be subject to ratification by the signatory States. It shall be open for accession by any State which is a Member of the United Nations, or by any other State which may be invited to accede to the Treaty with the consent of all the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX of the Treaty.
- 2 Ratification of or accession to the present Treaty shall be effected by each State in accordance with its constitutional processes.
- 3 Instruments of ratification and instruments of accession shall be deposited with the Government of the United States of America, hereby designated as the depositary Government.
- 4 The depositary Government shall inform all signatory and acceding States of the date of each deposit of an instrument of ratification or accession, and the date of entry into force of the Treaty and of any modification or amendment thereto.
- 5 Upon the deposit of instruments of ratification by all the signatory States, the present Treaty shall enter into force for those States and for States which have deposited instruments of accession. Thereafter the Treaty shall enter into force for any acceding State upon the deposit of its instrument of accession.
- 6 The present Treaty shall be registered by the depositary Government pursuant to Article 102 of the Charter of the United Nations.

ARTICLE XIV

The present Treaty, done in the English, French, Russian and Spanish languages, each version being equally authentic, shall be deposited in the archives of the Government of the United States of America, which shall transmit duly certified copies thereof to the Governments of the signatory and acceding States.

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Jan Smuts House, East Campus, University of the Witwatersrand PO Box 31596, Braamfontein 2017, Johannesburg, South Africa Tel +27 (0)11 339-2021 • Fax +27 (0)11 339-2154 www.saiia.org.za • info@saiia.org.za