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COLOMBIA'S QUEST FOR ANTARCTIC CONSULTATIVE PARTY STATUS: A VITAL STEP TOWARDS ENVIRONMENTAL CONSERVATION AND SUSTAINABILITY

Major Carolina Penagos

JCSP 49

Exercise Solo Flight

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Why is it important for a country like Colombia, known for its tropical climate and warm waters, to be part of the Antarctic Treaty System (ATS)? Indeed, considering the recent emphasis on the interconnectivity of ecosystems and the complexity of international relations, it is important for Colombia not to be excluded from decision-making on the use and exploitation of the enormous resources or of the health of the Antarctic's and Colombia's ecosystems. This paper will argue that only by becoming a consultative party of the Antarctic Treaty System will Colombia have some degree of control over the impact of the Antarctic on Colombia's ecosystems.

In order to better understand the significance of being a consultative party, this paper will describe Antarctica's geographical and geopolitical particularities, followed by the components and rules established by the ATS. These establish a framework through which it will be possible to analyze the correlation between Colombia and Antarctica and demonstrate the challenges to overcome and the actions that Colombia must undertake to achieve one of its main objectives concerning Antarctica: To become a Consultative Party to the ATS.

The 'White Continent,' Antarctica, is the world's southernmost continent. It is also a source of fascination for researchers around the globe due to its unique environment, which is one of the most extreme on Earth. For this reason, and due to the remoteness and inaccessibility of some of its areas, the continent is known as the last unexplored frontier on Earth.[1] Furthermore, the continent poses a particular geopolitical setting: Antarctica does not belong to anyone; therefore, it is necessary to establish a set of rules in which countries operating within Antarctica must coexist and cooperate.

On the other hand, Colombia, located in South America, is one of only 13 countries in the world that lie on the Equator.[2] Thanks to this and its complex geography, Colombia is considered the second most biodiverse country in the world[3]. This status imposes on the country the responsibility to ensure environmental conservation and sustainability, which can be translated into scientific research. At the same time, this poses challenges to the Government, given the vulnerability of ecosystems and how climate change can directly affect the population, economy, and development.

Colombia recognizes the relevance of Antarctica in the balance of ecosystems in South America and the world. For this reason and understanding the importance of actively participating in scientific research activities in disciplines such as biology, medicine, and climate change, and wishing to be taken into account in decision-making regarding the continent, the

[1] 'The Last Unexplored Place on Earth', Discover Magazine, accessed 27 March 2023, https://www.discovermagazine.com/planet-earth/the-last-unexplored-place-on-earth.
[2] Marca Colombia Colombia, 'Where Is Colombia: Location and Time Zone | Colombia Country Brand', accessed 24 March 2023, https://www.colombia.co/en/colombia-country/colombia-location-and-time-zone/.
[3] Marca Colombia Colombia, 'Discover Colombia's Biodiversity', Colombia Country Brand, 5 May 2020, https://www.colombia.co/en/colombia-country/environment/geography/colombia-second-greatest-biodiversity-in-the-world/.

country has set clear goals for contributing to the development of scientific research projects on the White Continent. Colombia's aim is not only to develop and promote science at the national level but also to establish a positive relationship with the states and the community of the Antarctic Treaty System (ATS)[4], which is the organism that regulates the Antarctic.

Antarctica, The White Continent

Understanding Antarctica's geography and historical background will help understand Colombia's position concerning the continent. With a landmass of more than 14 million square kilometers and 98 percent of its surface area covered by thick ice, Antarctica has one of the most extreme environments in the world; it is the driest, windiest, coldest, and iciest continent on Earth.[5] Despite the Antarctic's remote location in the Antarctic Polar Circle, Chile and Argentina are the closest countries to the White Continent, with only 1000 km to the Palmer Peninsula.[6] The distance to the nearest coast of Africa, Australia, New Zealand, and Tasmania could be more than double, ranging between 2,200 and 3,800 km.[7]

The continent is covered by an "inlandsis," an ice sheet with an area equal to or greater than 50,000 km²[8]. Due to this vast ice sheet, the Antarctic is considered the world's highest continent.[9] The average thickness of the ice covering the continent is 2,500 m; the maximum recorded thickness is 4,776 m, equivalent to almost 5 km of ice over some parts of its rock structure.[10] In other words, the Antarctic Ice Sheet (AIS) is the largest single piece of ice on Earth[11], constituting 90 percent of the world's ice and 80 percent of the world's fresh water.[12] Indeed, AIS plays a key role in Earth's heat balance, thanks to it reflecting a significant amount of solar radiation away from the Earth's surface. If the ice cover decreases, so does the reflectivity of the Earth's surface, resulting in a thermal imbalance that leads to global warming.[13]

At the same time, the continent's almost circular shape allows the waters surrounding the Antarctic, the Southern Ocean, to connect with the Atlantic, Indian, and Pacific Oceans, thus

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[4] Comisión Colombiana del Océano and Comité Técnico Nacional de Asuntos Antárticos, 'Agenda Científica Antártica de Colombia 2014 - 2035' (Comité Técnico Nacional de Asuntos Antárticos, 2014), 9, https://cco.gov.co/docs/publicaciones/Agenda_Antartica.pdf.
[5] Australian Antarctic Program, 'About Antarctica', 8 January 2023, https://www.antarctica.gov.au/about-antarctica/.
[6] Australian Antarctic Program.
[7] Armada Española, 'La Antártida. Continente helado', accessed 17 March 2023, https://armada.defensa.gob.es/ArmadaPortal/page/Portal/ArmadaEspannola/conocenosespeciales/prefLang-es/06aniversarios--09xx-annos-campanna-antartica--02tratado.
[8] Futura-Sciences, 'Inlandsis', Futura-Sciences, accessed 1 April 2023, http://www.futura-sciences.us/dico/d/geology-inlandsis-50001510/.
[9] Lize-Marie Van der Watt, 'Antarctica | History, Map, Climate, & Facts | Britannica', Britannica, 15 February 2023, https://www.britannica.com/place/Antarctica.
[10] Armada Española, 'La Antártida. Continente helado'.
[11] National Geographic, 'Antarctica', accessed 31 March 2023, https://education.nationalgeographic.org/resource/antarctica.
[12] Van der Watt, 'Antarctica | History, Map, Climate, & Facts | Britannica'.
[13] Michael Meredith et al., 'Polar Regions', 2019, 212.

creating the world's longest current, the Antarctic Circumpolar Current (ACC).[14] According to Rintoul et al., the ACC is critical in Antarctica and the climate balance. First, it keeps the continent cool and frozen. Second, it allows fresh water and heat circulation to the major oceans. Moreover, due to its size, the ACC contributes enormously to the gas exchange with the atmosphere, adding to the reduction of approximately half of the 6-7 billion tons of carbon released annually into the atmosphere.[15] Furthermore, any change in the ACC may affect the ice sheets and, with this, the world's sea levels.[16]

Antarctic waters not only play a relevant role in climate regulation but also have great importance in biodiversity. In this sense, the Antarctic Convergence, where the icy waters of the ACC meet and mix with the warmer waters of the north[17], creates a zone of high nutrient concentrations giving a great diversity of marine plant and animal life. Among the most notable are several species of marine mammals (whales, seals, and sea lions), benthic communities (plants and animals living on the seafloor), krill, and several species of Antarctica's most representative animal, the penguin. In fact, "the waters surrounding Antarctica are among the most diverse on the planet."[18]

[14] S Rintoul et al., 'Antarctic Circumpolar Current', *Ocean Currents*, 2010, 196.; Meredith et al., 'Polar Regions', 220.
[15] Richard Lemmons, 'Antarctic Circumpolar Current - Global Climate', Climate Policy Watcher, 2 February 2023, https://www.climate-policy-watcher.org/global-climate-2/antarctic-circumpolar-current.html.
[16] Rintoul et al., 'Antarctic Circumpolar Current'.
[17] Australian Antarctic Program, 'About Antarctica'.
[18] National Geographic, 'Antarctica'.

Figure 1- Physical Map of Antarctica

Source: Physical Map of Antarctica - Nations Online Project

Colombia and Antarctic

Colombia's interest in Antarctica responds to the interconnectivity of its ecosystems and the nation's interest in developing and promoting scientific research in different areas, such as medicine and the environment, which is why it is relevant for the country to be involved in the ATS.

As mentioned above, the Antarctic is a climate regulator. In the case of Colombia, the importance lies in the geopolitical and economic impact of Antarctic waters, mainly on the waters of its Pacific coast, as well as the effects on the country of climate change.[19] The humpback whales are a clear example of the interconnectivity between Colombia and Antarctica.

Currently, 15 species of humpback whales are recognized, 7 of which are found in Antarctica. The behavior of these animals leads them to travel between June and November to tropical waters in Africa, Australia, South Pacific, and South America for mating and breeding.[20]

Humpback whales travel to the Colombian Pacific Exclusive Economic Zone (ZEE-PC) thanks to the changes in sea surface temperature.[21] The ZEE-PC represents 36% of Colombia's national marine area.[22] The migratory behavior of these animals represents a transcendental ecological role in the balance of ecosystems in Colombia. Because they promote the flow of nutrients and energy in the oceans; they favor planktonic and benthic communities; and due to their displacements in the water columns, they modify these bodies in their conditions and composition; coming to be considered architects of the marine ecosystem.[23]

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[19] Carlos Enrique Álvarez-Calderón and Eduardo Namen-Mesa, 'Geopolítica Del Polo Sur: Intereses y Necesidades de Colombia En El Tratado de La Antártida', *Revista Científica General José María Córdova* 17, no. 28 (2019): 725.

[20] Shannon Olivia Marie Bettridge et al., 'Status Review of the Humpback Whale (Megaptera Novaeangliae) under the Endangered Species Act', 2015, vi.; Jorge A Acevedo, Anelio Aguayo-Lobo, and Luis A Pastene, 'Filopatría de La Ballena Jorobada (Megaptera Novaeangliae Borowski, 1781), al Área de Alimentación Del Estrecho de Magallanes', *Revista de Biología Marina y Oceanografía* 41, no. 1 (2006): 11–19.

[21] Paula Chávez, 'Predicting Cetacean Habitat in the Colombian Pacific EEZ: Challenges and Recommendations', 2018.

[22] Mayra Dayany Nieto García, 'Guía Sobre La Vida de La Ballena Jorobada (Megaptera Novaeangliae) y Su Paso Por El Pacífico Colombiano.', 2019, 69.

[23] Joe Roman et al., 'Whales as Marine Ecosystem Engineers', *Frontiers in Ecology and the Environment* 12, no. 7 (2014): 377–85.; and Miranda Molloy, 'Whales Are the Engineers of Their Ecosystems', *Whale Scientists* (blog), 10 September 2021, https://whalescientists.com/whale-pump-engineers/.

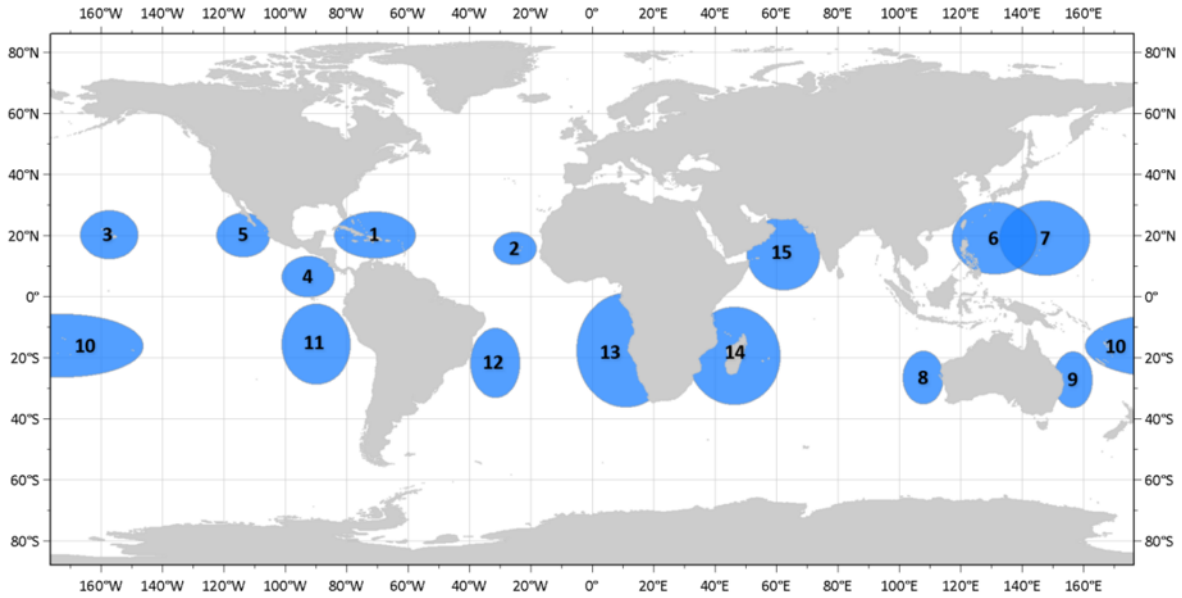

Figure 2 – Whales Migration Zones

1. West Indies 2. Cape Verde Islands/Northwest Africa 3. Hawaii 4. Central America 5. Mexico 6. Okinawa/Philippines 7. Second West Pacific 8. West Australia 9. East Australia 10. Oceania 11. Southeastern Pacific 12. Brazil 13. Gabon/Southwest Africa 14. Southeast Africa/ Madagascar 15. Arabian Sea.

Source: 'Status Review of the Humpback Whale (Megaptera Novaeangliae) under the Endangered Species

In addition to their ecological value, these cetaceans provide Colombian Pacific communities with economic and social benefits. Not only do they favor fishing productivity in the region, but also, due to their size and magnificence, promote tourism through whale watching. Whale watching in Latin America has increased at an annual rate of 11.3%, generating approximately 278 million dollars.[24] According to Chaves, the economic activity around the humpback in Colombia has allowed a sustainable economy, promoting conservation programs that contribute to the valuation of marine biodiversity and promoting the Colombian Pacific's scientific, economic, and cultural development.[25]

As already mentioned, Antarctica connects with the great oceans. This interconnectivity of the continent and the fact that the rate of Antarctic ice mass loss has increased since 2006has imposed a concern not only for Colombia but for the whole world.[26] Indeed, AIS mass losses from 2012 to 2016 were extremely higher than in previous years, mainly in the West Antarctic Ice Sheet[27] (WAIS, part of the Antarctic facing South America). According to Pritchard, H. D. et

[24] K Guadamud, 'Observación de Ballenas Jorobadas (Megaptera Novaeanglie) y Su Incidencia Dentro de Las Actividades Turísticas de La Parroquia Puerto Cayo Del Cantón Jipijapa', 2017.
[25] Nieto García, 'Guía Sobre La Vida de La Ballena Jorobada (Megaptera Novaeangliae) y Su Paso Por El Pacífico Colombiano.'
[26] Meredith et al., 'Polar Regions', 236.
[27] Ibid, 236.

al., the loss of ice sheets by surface and basal melting and dynamic thinning contribute to Global Mean Sea Level rise (GMSL).[28] The magnitude and speed of GMSL increase depend primarily on changes in global temperature, alterations in the Southern Ocean, and the dynamic response of the AIS, which are closely related to greenhouse gas emissions.[29]

In particular, Colombia is the only country in South America with coasts on both the Pacific and Atlantic oceans (Caribbean Sea). Its Pacific coast extends from the border with Panama to the border with Ecuador; it has an extension of 1300 km and covers four departments.[30] The Colombian Atlantic coast shares maritime limits with eight countries[31]; it extends 1600 km and covers eight departments (7 continental and one insular).[32] These geographical characteristics impose on the Colombian Government a responsibility to the population, especially in these regions, since the increase in GMSL has great economic and social implications.

The economic implications of the increase in the GMSL would extend beyond the coastal areas and have national-level consequences. Colombia's GDP, as ranked by the Observatory of Economic Complexity (OEC) in 2021, was 42nd globally.[33] With five primary maritime ports, three in the Atlantic and two in the Pacific, the industry and national economy are highly reliant on the ports[34], resulting in Colombia ranking 60th in total exports, 52nd in total imports, and 56th in terms of economic complexity, as measured by the Economic Complexity Index (ECI).[35] The negative impact on these ports could lead to incalculable losses for the country and have adverse effects on the country's economy and industrial development.

Likewise, the social implications of rising GMSL in Colombia's coastal areas are a cause for concern, as it may lead to a decrease in the availability of freshwater and an increase in the risk of flooding and erosion. [36] The national impact of such a scenario would not be negligible. On the one hand, in the Pacific region, there are over 1,100,000 people residing in around 42 municipalities, as per national statistics.[37] On the other hand, in the Atlantic region, the population is around 9.375.000 inhabitants, accounting for approximately 21.9% of the national

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[28] HDx Pritchard et al., 'Antarctic Ice-Sheet Loss Driven by Basal Melting of Ice Shelves', *Nature* 484, no. 7395 (2012): 502–5.
[29] M Haasnoot et al., 'Adaptation to Uncertain Sea-Level Rise; How Uncertainty in Antarctic Mass-Loss Impacts the Coastal Adaptation Strategy of the Netherlands', *Environmental Research Letters* 15, no. 3 (2020): 2.
[30] Banco de la República Colombia, 'Economías Del Pacífico Colombiano', accessed 26 April 2023, https://www.banrep.gov.co/es/publicaciones-e-investigaciones/libros-capitulos/economias-pacifico-colombiano.
[31] Cancillería Colombia, 'Fronteras Marítimas', accessed 26 April 2023, https://www.cancilleria.gov.co/politica/fronteras-maritimas.
[32] Colombia, 'Economías Del Pacífico Colombiano'.
[33] OEC, 'Colombia (COL) Exports, Imports, and Trade Partners', OEC - The Observatory of Economic Complexity, accessed 27 April 2023, https://oec.world/en/profile/country/col.
[34] Redacción, 'Un repaso por la actualidad de los puertos en Colombia', Zonalogística, 29 July 2021, https://zonalogistica.com/un-repaso-por-la-actualidad-de-los-puertos-en-colombia/.
[35] OEC, 'Colombia (COL) Exports, Imports, and Trade Partners'.
[36] Haasnoot et al., 'Adaptation to Uncertain Sea-Level Rise; How Uncertainty in Antarctic Mass-Loss Impacts the Coastal Adaptation Strategy of the Netherlands'.
[37] DANE Colombia, 'Población En La Región Del Pacífico.', accessed 27 April 2023, https://geoportal.dane.gov.co/servicios/atlas-estadistico/src/Tomo_I_Demografico/2.3.4.-poblaci%C3%B3n-en-la-regi%C3%B3n-del-pac%C3%ADfico.html.

population.[38] In light of these factors, Colombia needs to engage in the geopolitical issues concerning Antarctica.

Antarctica and Its Geopolitics

The historical and geopolitical background of Antarctica provides insight into the current geopolitical dynamics surrounding the continent. It is impossible to attribute Antarctica's discovery to a single country, as explorers from various nations contributed to its mapping, driven by their curiosity and the need to find new commercial routes. Notable explorers include the Portuguese Ferdinand Magellan, who circumnavigated South America in 1520, and British officer Captain James Cook, who explored the sub-Antarctic region in 1775.[39] However, it was not until the late 19th and early 20th centuries when the expeditions led by Robert Falcon Scoot, Ernest Shackleton, and Roald Amundsen made significant cartographic and knowledge contributions.[40]

Further on, scientific advancements in radar, rocket, and computer technology achieved during the Second World War and the challenges imposed by the Cold War led the scientific community to plan the International Geophysical Year (IGY) in 1957-58.[41] With the purpose of making a "global effort for a comprehensive study of the Earth, its poles, its atmosphere, and its interactions with the sun"[42], nearly 300,000 scientists from 67 countries came together to contribute to glaciological studies of mountain and surface glaciers in the Arctic and Antarctic; and to the study of physical processes in the world's oceans[43], among others studies. Currently, organizations that were born during the IGY continue to significantly contribute to scientific research and to framing the behavior of nations in the Antarctic, such as the World Data Centers, the Scientific Committee on Antarctic Research (SCAR), and the Antarctic Treaty System (ATS), which was created as a mechanism of governance for peaceful purposes in Antarctica and will be addressed in more detail later in this document.

Perhaps the most relevant aspect regarding geopolitics is that no formally established country in the Antarctic territory. However, seven nations have formally claimed territory in Antarctica[44]. The first formal claim to Antarctic territory was made by Great Britain in 1908, followed by New Zealand in 1923, France in 1924, Australia in 1933, Norway in 1939, Chile in 1940, and Argentina in 1943.[45]

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[38] DANE Colombia, 'Población En La Región Caribe e Insular.', accessed 27 April 2023, https://geoportal.dane.gov.co/servicios/atlas-estadistico/src/Tomo_I_Demografico/2.3.2.-poblaci%c3%b3n-en-la-regi%c3%b3n-caribe-e-insular.html.
[39] Van der Watt, 'Antarctica | History, Map, Climate, & Facts | Britannica'.
[40] National Geographic, 'Antarctica'.
[41] SCAR, 'The Year That Made Antarctica', SCAR, 3 August 2017, https://www.scar.org/general-scar-news/igy-spri/.
[42] Kelli Mars, '65 Years Ago: The International Geophysical Year Begins', Text, NASA, 5 July 2022, http://www.nasa.gov/feature/65-years-ago-the-international-geophysical-year-begins.
[43] Yulia S Lyubovtseva et al., 'Sixtieth Anniversary of the International Geophysical Year (1957–2017)–Contribution of the Soviet Union', *History of Geo-and Space Sciences* 11, no. 2 (2020): 160.
[44] Secretariat of the Antarctic Treaty, 'The Antarctic Treaty | Antarctic Treaty', Secretariat of the Antarctic Treaty, accessed 15 April 2023, https://www.ats.aq/e/antarctictreaty.html.
[45] Robert Keith Headland, 'Territory and Claims in the Antarctic Treaty Region: A Disquisition on Historical and Recent Developments', *The Cartographic Journal* 57, no. 2 (2020): 160–74.

Regarding these claims, it is important to mention that all boundaries are artificially defined by geographical coordinates only; a northern boundary of 60° south latitude was specified in five of the seven claims. Additional considerations are:

- The claims of Argentina, Chile, and Great Britain overlap; for example, 14 percent of the British claim overlaps with the Argentine claim, and 8 percent with the Chilean one;
- Australia and Norway have territorial claims in two separate non-contiguous territories;
- Australia has the largest territorial claim; its two territorial claims combined comprise 42.5 percent of Antarctica's territory;
- Only15 percent of the coastal perimeter arc has not been claimed.[46]

[46] Headland.

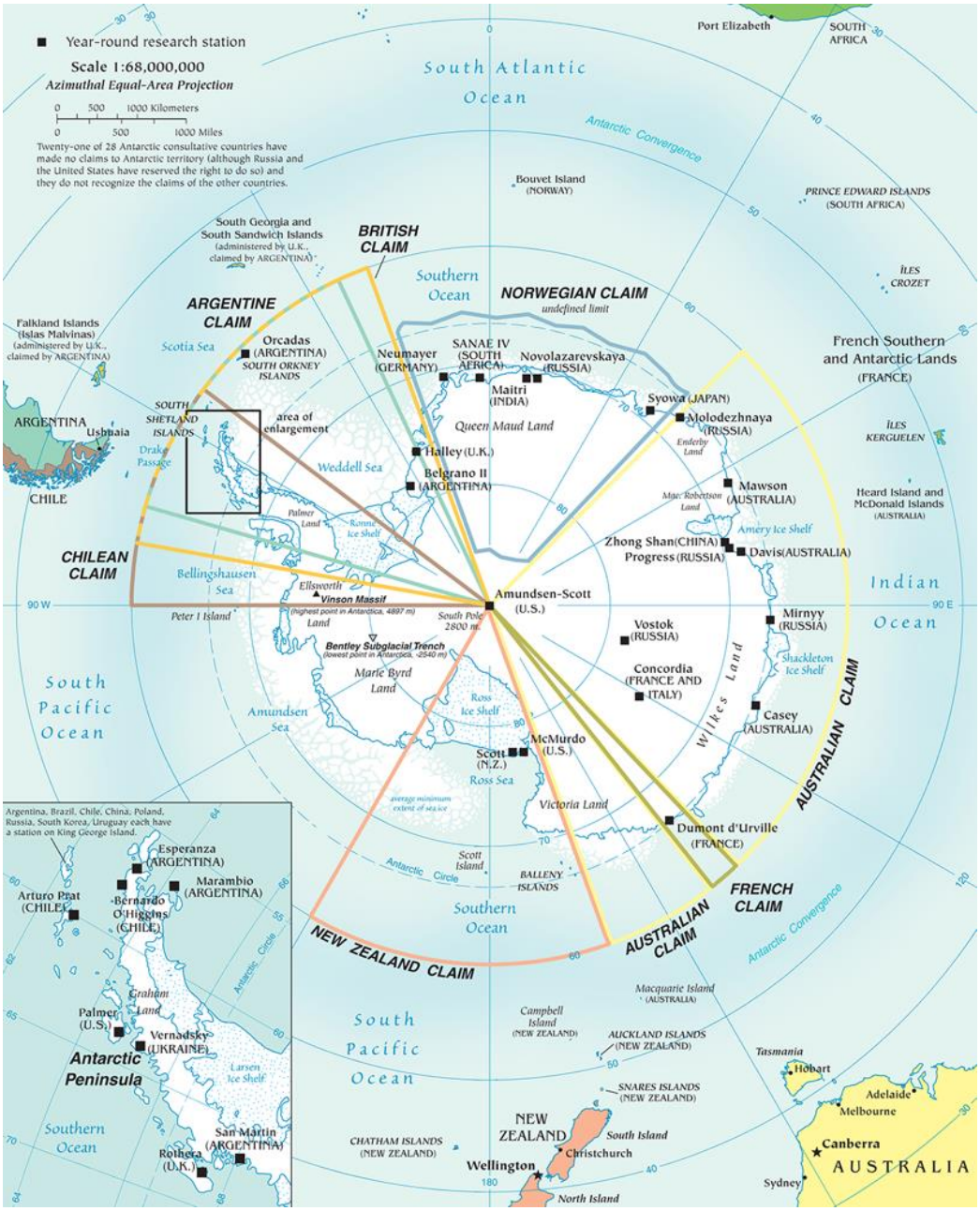

Figure 3 – Territorial Claims

Source: Mapped: Visualizing Territorial Claims in Antarctica (visualcapitalist.com)

One of the most relevant aspects of the geopolitics of Antarctica, and one that may in the future be a decisive factor in the territorial claims, is the position taken by the United States of America (USA) and Russia. Both countries have significant involvement in research and have a history of Antarctic exploration; nevertheless, neither country owns or recognizes Antarctic territories, but both reserve the right to claim them in the future.[47]

[47] Headland, 160.

In other words, in spite of the territorial claims, the presence in Antarctica is not limited to the seven countries mentioned above. The human settlements on the continent are mostly scientific personnel who live there on a rotational basis, usually during the Austral summer[48]. Currently, there are about 70 research stations in the sub-Antarctic and Antarctic.[49]

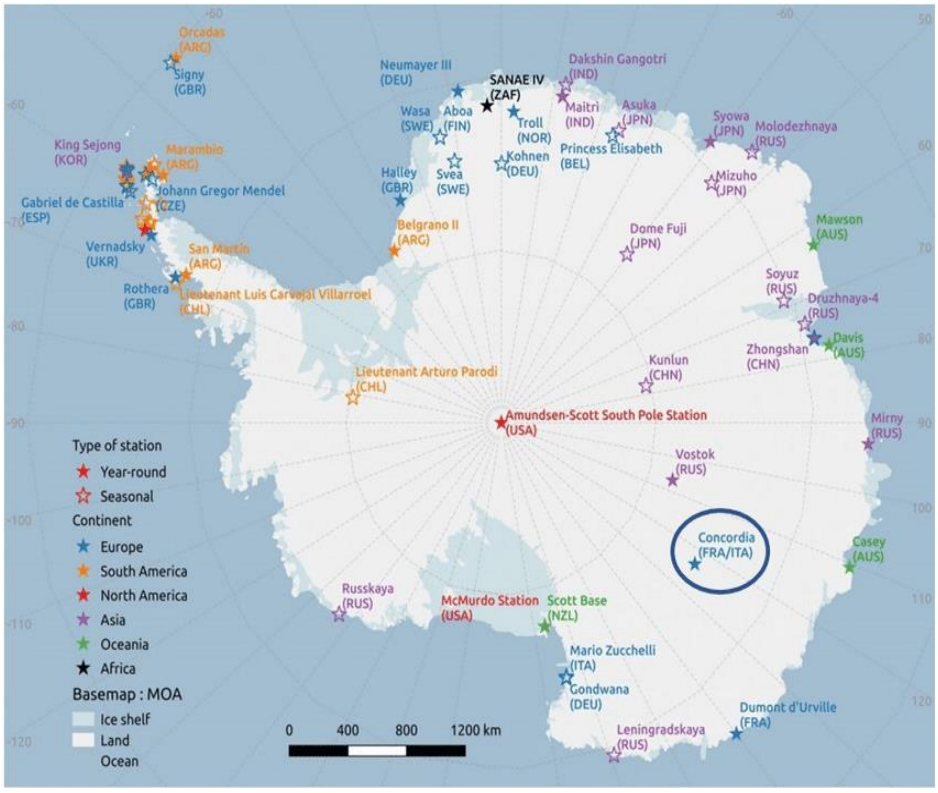

Figure 4 – Main Research Stations in Antarctica
Source: Scientific Diagram (researchgate.net)

However, these stations are not only on the White Continent in the name of science; they also embody the interests of each of their nations to be part of the governance of Antarctica. Almost all stations display national flags and postal administration with national stamps, published maps, and authorized toponomy in some territories.[50] In this sense, nations such as the USA, China, and Russia, which play a key role in global geopolitics, have established research stations across the Antarctic. On one side, the USA has the largest and the southernmost stations in Antarctica, McMurdo Station, and Amundsen-Scott South Pole Station[51]. On the other side,

[48] Australian Antarctic Program, 'About Antarctica'.
[49] Antarctic Research Stations List, Appendix A
[50] Headland, 'Territory and Claims in the Antarctic Treaty Region: A Disquisition on Historical and Recent Developments'.
[51] 'US NSF - OPP - ANT - United States Antarctic Program', accessed 15 April 2023, https://www.nsf.gov/geo/opp/antarct/usap.jsp.

China has the Kunlun Station, the second southernmost station during the summer, and Russia has the Vostok Station, the second southernmost during winter time.[52]

At the same time, the countries' economic interests are a relevant factor to be taken into account in Antarctica. Since the seal hunt in the Southern Ocean began in the late 18th century, there has been a great economic interest in Antarctic resources; currently, fishing, tourism, and research are considered permanent activities on the continent.[53] As an example, tourism in Antarctica has increased due to the diversification of the market and the increase of operators.[54] Thanks to expedition-type cruise tourism, the total number of visitors to Antarctica increased to over 52,000 (over 50 percent) between 2014-2019.[55] These numbers are expected to continue to increase in the coming years.[56]

The Antarctic Treaty System (ATS)

The singularities of the polar regions have allowed approaching governance through different lenses. On the north side, the aspects related to the Arctic are framed through the Arctic Council; which establishes cooperation, coordination, and interaction mechanisms among state members to promote the Arctic region's social, economic, and environmental aspects. The Arctic Council comprises eight Arctic States[57] (countries with territory in the Arctic), six permanent participants (representatives of the indigenous communities), six working groups and one expert group, and 38 observer countries. It is important to note that "all Arctic Council decisions and statements require the consensus of the eight Arctic States." [58]

On the south side, as mentioned previously, Antarctica is regulated by the Antarctic Treaty System (ATS). A governance mechanism different from the Arctic Council but with the same objective: to frame the states involved in the continent to establish an environment of peaceful and resolute cooperation. As its name indicates, the ATS is composed of separate agreements: The Antarctic Treaty (1959), The Convention for the Conservation of Antarctic Seals (CCAS, 1972), The Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR, 1980), and The Protocol on Environmental Protection to the Antarctic Treaty (1991). It should be noted that the two Conventions, CCAS and CCAMLR are independent agreements, whereas the Protocol can only be signed by members of the Antarctic Treaty.[59]

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[52] 'Antarctic Stations - Scientific Research Bases and Facilities', accessed 15 April 2023, https://www.coolantarctica.com/Community/antarctic_bases.php.
[53] Sanjay Chaturvedi, 'The Future of Antarctica: Minerals, Bioprospecting, and Fisheries', in *The Routledge Handbook of the Polar Regions* (Routledge, 2018), 403–15.
[54] Emma J Stewart and Daniela Liggett, 'Polar Tourism: Status, Trends, Futures', in *The Routledge Handbook of the Polar Regions* (Routledge, 2018), 357–70.
[55] ATCM (Antarctic Treaty Consultative Meeting), 'Information Paper 11. Antarctic Tourism Workshop, 3-5 April; Rotterdam, The Netherlands: Chair's Report', 2019.
[56] 'Antarctica Tourism Numbers Surge - Cruise Industry News | Cruise News', accessed 8 May 2023, https://cruiseindustrynews.com/cruise-news/2018/04/antarctica-tourism-numbers-surge/.
[57] Arctic States: Canada, Finland, Iceland, Norway, Russia, Sweden, The United Kingdom and The United States.
[58] 'Arctic States', Arctic Council, accessed 20 April 2023, https://www.arctic-council.org/about/states/.
[59] Secretariat of the Antarctic Treaty, 'Related Agreements | Antarctic Treaty', Secretariat of the Antarctic Treaty, accessed 22 April 2023, https://www.ats.aq/e/related.html.

An essential aspect of the management of the ATS is the Antarctic Treaty Consultative Meeting (ATCM), which has met annually since 1994 (1961-1994, the ATCM met every two years) and is hosted by the Consultative Parties.[60] The ATCM has the purpose of "exchanging information, consulting together on matters of common interest pertaining to Antarctica, and formulating and considering and recommending to their Governments in furtherance of principles and objectives of the Treaty."[61] The measures and decisions adopted in the ATCM are by consensus of the Consultative Parties and seek to regulate and provide guidelines for managing the Antarctic Treaty. The consensus of these parties is required for the admission of new members to Consultative Status.[62] The ATCM meeting is attended by:

- Consultative Parties;
- Non-Consultative Parties;
- Observers (CCAMLR, SCAR and COMNAP); and
- Invited experts, such as the International Association of Antarctica Tour Operators (IAATO) and the Antarctic and Southern Ocean Coalition (ASOC).[63]

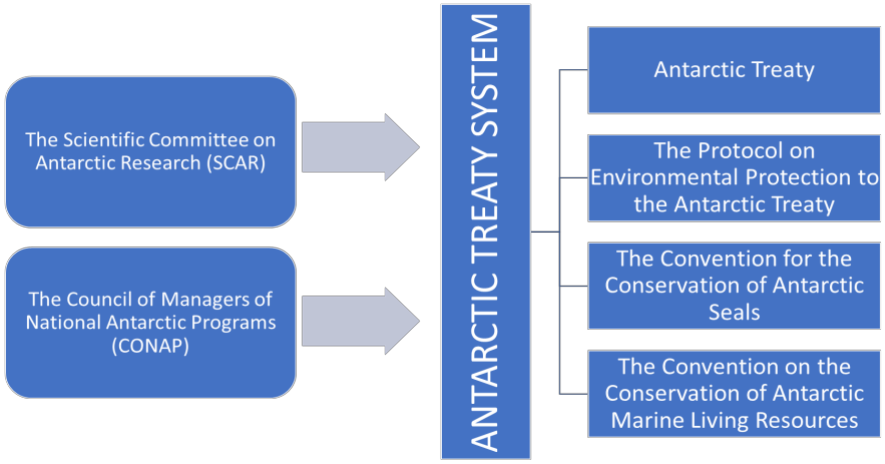

Figure 5- The Antarctic Treaty System
Source: Agenda Antarctica Colombia

The Antarctic Treaty

As a result of the IGY and looking for the scientific collaboration to be successful, in 1959, 12 countries[64] signed the Antarctic Treaty with the aim of suspending territorial claims, fixing the unrestricted use of the Antarctic continent for scientific research, and establishing a

[60] Secretariat of the Antarctic Treaty, 'ATCM and Other Meetings | Antarctic Treaty', Secretariat of the Antarctic Treaty, accessed 22 April 2023, https://www.ats.aq/e/atcm.html.
[61] Secretariat of the Antarctic Treaty, 'Related Agreements | Antarctic Treaty', Art. IX.
[62] Secretariat of the Antarctic Treaty, 'ATCM and Other Meetings | Antarctic Treaty'.
[63] Idle.
[64] Antarctic Treaty signatorie countries: Argentina,Australia, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, The United Kingdom, The United States of America and Russia.

system of mutual inspection to prevent any mineral extraction and military activities[65]; ensuring Antarctica as a peaceful and cooperative zone for all. The Antarctic Treaty entered into force on 23rd June 1961.

Due to the complexity and interdependence of the world, there has been a growing interest in participating in Antarctic governance.[66] Currently, the treaty counts 29 member countries as Consultative Parties.[67] These countries are entitled to participate in the ATCMs since they have demonstrated a "*significant research"* commitment to Antarctica. Moreover, there are 27 other countries that joined the Treaty as Non-Consultative Parties[68], who are allowed to attend the ATCM "but do not participate in the decision-making"[69] process. However, several of these countries, including Colombia, seek to upgrade their status to Consultative Parties and have more active in shaping decisions on the continent. The Treaty comprises14 articles[70], which can be said to outline the norms of behavior that the states involved in Antarctica have agreed to follow, the following being the most notable:

- The use of Antarctica for peaceful purposes only. It prohibits the installation of military bases or carrying out any kind of weapons testing.
- Guarantees continued freedom to conduct scientific research.
- Promotes international scientific cooperation. Scientific programs, personnel, and results of observations should be interchangeable between stations and freely available.
- Suspends territorial claims between Treaty parties by stating that no activity shall increase or decrease positions previously asserted concerning territorial claims, stating that no new or expanded claims may be made.
- Bans any nuclear activity and the dumping of radioactive waste in the Antarctic.
- Provides for inspection by observers designated by either party. Stations, equipment, and vessels must be available for inspection by observers at all times.[71]

The Convention for the Conservation of Antarctic Seals (CCAS)

In 1972, the CCAS was signed in London to protect and facilitate research on Antarctic seals and maintain the balance of the Antarctic ecosystems; due to this animal population was

[65] Secretariat of the Antarctic Treaty, 'The Antarctic Treaty | Antarctic Treaty'.
[66] Bob Frame, 'Towards an Antarctic Scenarios Integrated Framework', *The Polar Journal* 10, no. 1 (2020): 37.
[67] Antarctic Treaty Consultative Parties, Appendix B
[68] Antarctic Treaty Non-Consultative Parties, Appendix C
[69] Secretariat of the Antarctic Treaty, 'Parties | Antarctic Treaty', Secretariat of the Antarctic Treaty, accessed 22 April 2023, https://www.ats.aq/devAS/Parties?lang=e.
[70] 'Key Documents | Antarctic Treaty', Secretariat of the Antarctic Treaty, accessed 22 April 2023, https://www.ats.aq/e/key-documents.html.
[71] *Idle*

almost depleted by 1920. The CCAS came into force in 1978.[72] Its expiration is unspecified; 16 countries have adhered to this Convention.[73]

The Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR)

Signed in Canberra in 1980 and entered into force in 1982, the CCAMLR has its objective to conserve marine life in the Antarctic. It should be noted that the area covered by the CCAMLR includes the area related to the Antarctic Treaty (the area south of the 60° S parallel) and the Antarctic Convergence.[74] Currently, the Convention counts 26 Member States and the European Union (EU).[75]

The Protocol on Environmental Protection to the Antarctic Treaty

Also called the Madrid Protocol, it was signed in 1991 and came into force in 1998. This Protocol aims to complement and reinforce the Antarctic Treaty, intending to increase the protection of the environment and the Antarctic ecosystems. The Protocol is composed of 27 articles, one arbitration appendix (13 articles), and six annexes, among which we can take as an example of its reinforcement of the Treaty:

- Article 2, which designates the continent "as a natural reserve, devoted to peace and science;"
- Article 3 frames the human activity in Antarctica; and
- Article 7, which reinforces the prohibition of mineral exploitation on the continent, except for scientific purposes. According to the provisions of the Protocol, it can only be revoked by a unanimous consensus of the Consulting Parties in 2048.[76]

The Council of Managers of National Antarctic Programs (COMNAP)

Established in 1988, the COMNAP aims to bring together the managers of national Antarctic programs to collaborate on issues related to Antarctic science, logistics, and operations. Currently, with 30 country members, the COMNAP serves as a forum to develop practices to improve activities' effectiveness and facilitate international cooperation in the Antarctic.[77]

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[72] Secretariat of the Antarctic Treaty, 'Related Agreements | Antarctic Treaty'.; Karin Lehmphul, 'Convention for the Conservation of Antarctic Seals', Text, Umweltbundesamt (Umweltbundesamt, 19 May 2016), https://www.umweltbundesamt.de/en/convention-for-the-conservation-of-antarctic-seals.
[73] Argentina, Australia, Belgium, Brazil, Canada, Chile, France, Germany, Italy, Japan, Norway, Poland, Russia, South Africa, The United Kingdom. UNTC, 'Convention Pour La Protection Des Phoques de l'Antarctique', Nations Unies Collestion des Traités, accessed 22 April 2023, https://treaties.un.org/Pages/showDetails.aspx?objid=08000002800f9854&clang=_fr.
[74] Secretariat of the Antarctic Treaty, 'Related Agreements | Antarctic Treaty'.
[75] Argentina, Australia, Belgium, Brazil, Chile, China. Ecuador, EU, France, Germany, India, Italy, Japan, Korea (ROK), Namibia, Netherlands, New Zealand, Norway, Poland, Russia, South Africa, Spain, Sweden, Ukraine, United kingdom, United States and Uruguay. 'Members | CCAMLR', accessed 22 April 2023, https://www.ccamlr.org/en/organisation/members.
[76] 'Environmental Protocol | Antarctic Treaty', accessed 22 April 2023, https://www.ats.aq/e/protocol.html.
[77] 'COMNAP', COMNAP, 4 April 2023, https://www.comnap.aq.

Scientific Committee on Antarctic Research (SCAR)

An influential body for the ATS, especially for the ATCMs, is the Scientific Committee on Antarctic Research (SCAR). This body, which is part of the International Science Council (ISC), was formed in 1958 and since then has played a key role in coordinating scientific activities in the continent. Currently, 46 countries are part of this organization: 34 full members who are the countries with an active scientific program in Antarctica and 12 associate members who, although they do not have their own program, the countries are in the process of developing a scientific program in Antarctica.[78] SCAR provides scientific input and advice to the Consultative Parties through five Standing Committees.[79] In other words, to be a member of the ATS, the countries must be full members of SCAR. Even though being a SCAR member is not the only requirement, the countries must fulfill it to be a Consultative Party on the ATS.

During the ATCM held in Beijing in 2017, the "Guidelines on the procedure to be followed concerning Consultative Party status" were updated. This document established that the Contracting Party requesting Consultative Party Status (CPrCS) must inform and deliver the required documentation to the depositary Government (the USA)[80] in advance (no later than 210 days previously to the next ATCM). According to the ATCM XL Final Report, the CPrCS must provide a dossier with[81]:

- A description of all scientific programs and activities performed in or on Antarctica during the last ten years.
- All the information highlighting the country's sustained contributions to science.
- Detailed description of all the planning, management and execution of its scientific programmes and logistical support activities in the continent.
- Information about the country's willingness and ability to promote international cooperation.
- It will be considered a positive indicator of engagement in Antarctic operational matters in support of and involvement in Antarctic science if the CPrCS is a full member of the Council of Managers of National Antarctic Programs ("COMNAP"), and the Scientific Committee on Antarctic Research ("SCAR").
- The CPrCS is encouraged to seek appropriate assistance from other Consultative Parties during the process to achieve Consultative Party status.

Meeting the established requirements is not the only factor that determines access to the ATS. The decision-making process is also influenced by current geopolitical dynamics. Canada serves as an example of this. The Final Report of the Forty-fourth Antarctic Treaty Consultative Meeting reveals that Canada has been a Non-Consultative Party to the Antarctic Treaty since

[78] 'Welcome to SCAR', SCAR, accessed 23 April 2023, https://www.scar.org/.
[79] Rosemary Nash, 'Standing Committees', SCAR, accessed 23 April 2023, https://www.scar.org/about-us/standing-committees/.
[80] 'The Antarctic Treaty (1959)', *British Antarctic Survey* (blog), accessed 24 April 2023, https://www.bas.ac.uk/about/antarctica/the-antarctic-treaty/the-antarctic-treaty-1959/.
[81] Secretariat of the Antarctic Treaty, 'ATCM XLIV - Final Report', 2017, https://www.ats.aq/devAS/Meetings/Past/94.

1988. In October 2021, Canada submitted its formal application to become a Consultative Party to the depositary Government. However, during the ATCM held in Berlin in 2022, despite the depositary Government confirming that Canada complied with the requirements set out in ATCM XL, all but two consultative parties approved the Canadian application. China and Russia cited procedural and substantive reasons for not deciding on Canada's request. The consultative parties agreed that this issue will be addressed again at the ATCM to be held in Helsinki in June 2023.[82]

Colombia in the ATS

Scientific research and preservation efforts in Antarctica are of national interest for Colombia due to the complex interconnections between the continent, the ATS, and the country's ecosystem. Any alterations in these delicate systems could have significant social and economic implications, making it crucial to prioritize the protection of this area for the sake of peace and sustainability. For this purpose, in 1989, Colombia deposited the instrument of accession to the ATS with the depositary Government. A year later, in 1990, the country created the National Commission on Antarctic Affairs (CN AA) to advise the Government on the country's general policy within the framework of the ATS.[83]

In light of previous experience, the National Technical Committee on Antarctic Affairs (CTN AA) was established in 2012 to enhance coordination among governmental, scientific, and academic entities.[84] As a sign of its commitment, and as a result of this collaboration, Colombia has developed the Colombian Antarctic Program (PAC, 2014), focusing its actions on increasing its participation in the ATS and becoming a Consultative Party of this organization.

Over time, the PAC has become a roadmap that frames the country's scientific activities in Antarctica. Four objectives were formulated within the PAC:

- Increase scientific contributions in Antarctica.
- Promote international cooperation with the AT consultative countries.
- Promote knowledge regarding the interconnectivity between Colombia and Antarctica.
- Develop research projects in areas of global relevance.[85]

In order to achieve these objectives, the PAC outlines 5 phases in which it establishes four cross-cutting components: Internationalization, Strategic Communication, Science, and

[82] Secretariat of the Antarctic Treaty, 'Final Report of the Forty-Fourth Antarctic Treaty Consultative Meeting', 2022, 36, https://www.ats.aq/devAS/Meetings/Measure?lang=e&id=653.
[83] Comisión Colombiana del Océano and Comité Técnico Nacional de Asuntos Antárticos, 'Agenda Científica Antártica de Colombia 2014 - 2035', 12.
[84] Comité Técnico Nacional de Asuntos Antárticos, 'Programa Antártico Colombiano' (Comisión Colombiana del Océano, 2014), 7, https://cco.gov.co.
[85] Information provided by the Colombian Antarctic Program (PAC)

Evaluation and Monitoring[86], in addition to determining the activities to be carried out in order to materialize Colombia's intentions.

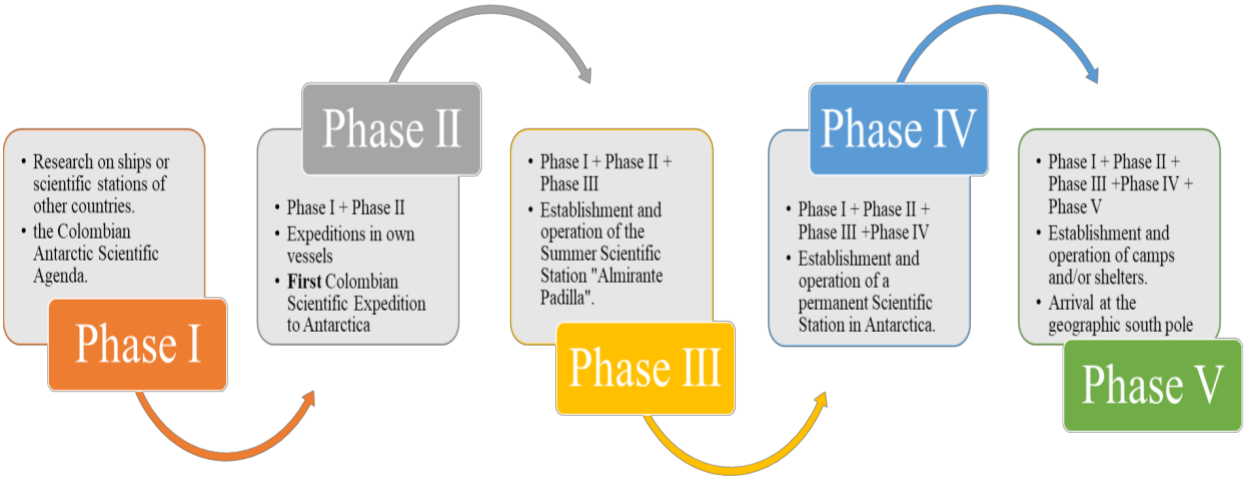

Figure 6 – Colombian Antarctic Program's Phases

Source: Programa Antártico Colombiano Pag 24

A relevant aspect of the PAC, and the phases mentioned above, was structuring the Antarctic Scientific Agenda of Colombia 2014-2035. The document provides the guidelines for planning, developing, and evaluating research and scientific expeditions in the Antarctic, in this sense, considering that being present through scientific expeditions is a relevant factor of the ATS. Since 2014 and uninterruptedly, the country has been developing during the southern summer scientific expeditions, in which governmental, military (Colombian Navy), academic and scientific agencies have been involved.

[86] Comité Técnico Nacional de Asuntos Antárticos, 'Programa Antártico Colombiano', 19.

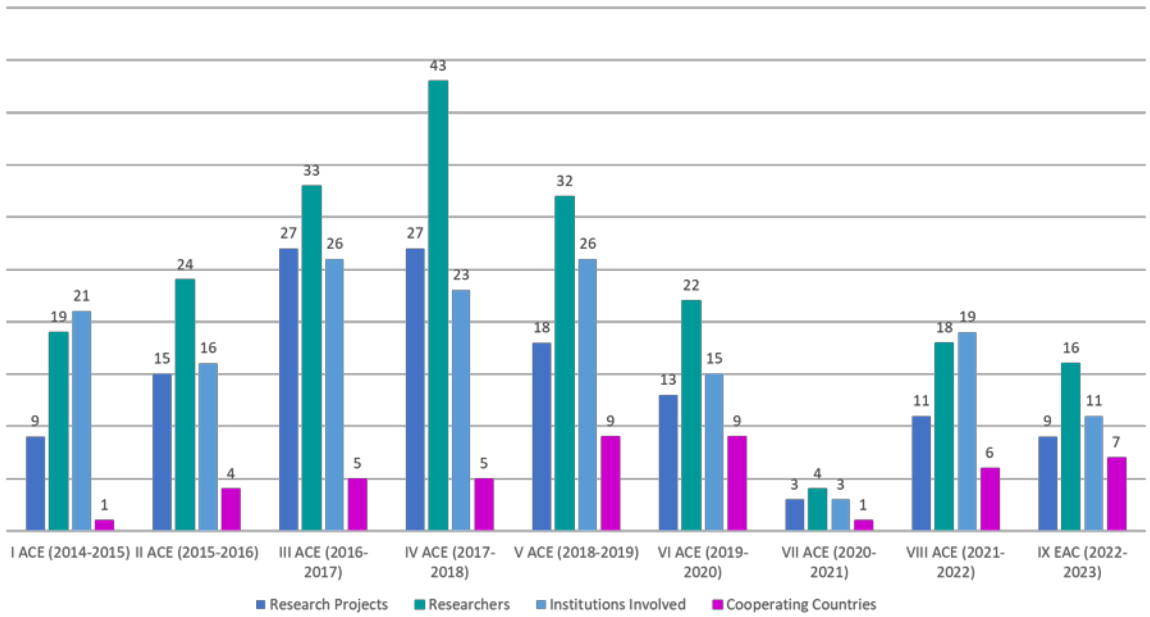

Figure 7- Antarctic Colombian Explorations

Source: Made by the author with the information provided by the Colombian Antarctic Program (PAC)

Through the PAC, Colombia has sought to project research areas with an interdisciplinary approach aligned with that of SCAR. In this sense, and intending to generate actions to strengthen the CAP, Colombia has acquired greater international commitments. The country joined the SCAR in 2016 as Associated Member; this has allowed the country to participate in the research processes led and articulated by the organization.[87] Similarly, considering the multiple requirements necessary to become a consultative member of the ATS, Colombia signed The Protocol on Environmental Protection to the Antarctic Treaty in 2018.[88]

Accordingly, international cooperation is a relevant issue for the country. It could be said that Colombia's actions and presence in the Antarctic are somewhat recent. Therefore, the country has established robust collaboration with ATS member nations as Consultative Parties. This partnership aims to not only advance science and technology but also to enhance knowledge and practices on expeditions and logistics in the continent. The country has been able to create synergies with more than 10 ATS advisory countries. As a result of Colombian research, the country has contributed data to countries such as Brazil, Chile, Turkey, Uruguay, and Spain. It has also received support from countries such as Japan, the USA, the UK, China, and Argentina. In the same way, Memorandums of Understanding (MoU) on Antarctic Affairs have been signed

[87] Rosemary Nash, 'Overview of SCAR Members', SCAR, accessed 3 May 2023, https://www.scar.org/about-us/members/overview/.
[88] Cancillería Colombia, 'Colombia Adhirió al Protocolo al Tratado Antártico Sobre Protección Del Medio Ambiente, Su Apéndice y Sus Anexos', accessed 3 May 2023, https://www.cancilleria.gov.co/en/newsroom/news/colombia-adhirio-protocolo-tratado-antartico-proteccion-medio-ambiente-su-apendice.

with Bulgaria, Chile, Peru, and Uruguay, and Bilateral Agreements with the Navies of Chile, Brazil, Ecuador, and Peru.[89]

However, the challenges facing the country concerning Antarctica are not minor. Among them, it is worth mentioning the little knowledge that the Colombian population has about the country's interconnectivity with the Antarctic, as well as the relevance of this continent for important issues such as climate change. Therefore, the resources allocated to the program are scarce. The national narrative has moved around other issues. An example is that according to the current government program, in which the Colombian Amazon is established as a priority, the document does not mention Antarctica.[90] Thus, making the Antarctic program relevant and engaging academia to develop science on this topic has not been easy. Likewise, there are challenges in unifying the concepts and narratives handled by each entity involved in the program. In this sense, the Colombian Navy has led most of the expeditions and is currently in charge of the PAC.

Conclusions

The importance of the Antarctic is indisputable, not only for Colombia but also for the balance of ecosystems worldwide. Climate change will determine the pace and nature of changes in the polar regions[91], so articulated and adaptive responses from a global scenario are required. The Antarctic Treaty System provides a framework for countries to regulate their activities and behavior on the continent. However, reviewing the requirements for countries to participate in the decision-making process may help to have a more diverse and inclusive perspective regarding the continent.

Human presence in Antarctica has increased, not only because of tourism but also because of the number of researchers who come to the continent to develop science. Given the relevance of the continent for the future of science and humanity and the understanding that the continent is so far reserved as a space for research and peace, implementing mechanisms to reduce the footprint would be propitious. In this sense, seeking tools to regulate tourism in Antarctica may contribute to the greater preservation of its ecosystems.

Similarly, recognize that better use of existing research facilities in the Antarctic could be encouraged, and not promote that each country wishing to get involved in Antarctica builds its own station. Hence, a more communitarian and inclusive approach may contribute to conserving the Antarctic ecosystems and bringing added value in terms of international cooperation.

Colombia has made significant efforts to establish a presence in Antarctica. Its goal of becoming a Consultative Party in the ATS is not merely about aligning with scientific strategy, but also about aligning with the geopolitical dynamics of Antarctica. Colombia has made significant efforts to establish a presence in Antarctica. Its goal of becoming a Consultative Party in the ATS is not merely about aligning with scientific strategy, but also about aligning with the geopolitical dynamics of the region. A crucial aspect for the country is international cooperation.

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[89] Information provided by the Colombian Antarctic Program (PAC)
[90] 'Este es el plan de gobierno de Gustavo Petro', Petro Presidente 2022, accessed 3 May 2023, https://gustavopetro.co/programa-de-gobierno/.
[91] Meredith et al., 'Polar Regions', 206.

The country's contribution through science and logistical resources strengthens ties with the other ATS consultative countries, which is made necessary by the premise that all consultative members must vote in favor of a new member.

Likewise, international cooperation offers Colombia the opportunity to learn from countries with significant experience in Antarctica. Based on this learning, the country has slowly begun to build knowledge and doctrine, which will be helpful in the future, not only to accompany but perhaps to lead research and expeditions in the White Continent.

The country has a long way to go in Antarctica. The first challenge of the Colombian Antarctic Program is at the national level. Effectively involving Government, science, and academia is not a simple task; it requires resources, funding, and building scientific knowledge to develop meaningful research. It is not just a question of financial resources. The study of humpback whales is a great start to awaken Colombians' scientific curiosity and promote research on Antarctic issues. Creating awareness at the national level regarding the interconnectivity between the country and the white continent can open the doors to more research on oceanography, biodiversity, and climate change.

Understanding the impacts and implications that Antarctica may have on access to natural resources, the economy, and its social effects, especially in coastal areas, can promote innovation in tools and practices that allow better management and planning of polar resources to improve the response to the challenges of climate change in Colombia.

Finally, by being a part of the ATS, Colombia contributes to scientific progress and environmental protection and promotes peace and cooperation in one of the world's most unique regions. The country's involvement in the ATS is vital, and it is in Colombia's best interest to continue its participation in the organization's decision-making processes. Therefore, Colombia must continue to invest in the scientific and technological development necessary to achieve its objectives and make a meaningful contribution to the ATS's mission.

Appendix A: Antarctic Research Stations List

Nation	Station Name	Opened	Average Winter Pop.	Average Summer Pop.
Argentina	Belgrano II	1955	12	12
Argentina	Brown	1951	N/A	18
Argentina	Camara	1953	N/A	20
Argentina	Decepcion	1948	3	18
Argentina	Esperanza	1952	55	90
Argentina	Jubany (now Calini)	1953	20	60
Argentina	Marambio	1969	55	150
Argentina	Melchior	1947	N/A	36
Argentina	Orcadas	1904	14	45
Argentina	Petrel	1967	N/A	25
Argentina	Primavera	1977	N/A	17
Argentina	San Martin	1951	20	20
Australia	Casey	1969	20	70
Australia	Davis	1957	22	70
Australia	Mawson	1954	20	60
Belgium	Princess Elisabeth	2009	N/A	20
Brazil	Comandante Ferraz	1984	12	40
Chile	Arturo Parodi	1999	N/A	25-40
Chile	Arturo Prat	1947	N/A	27
Chile	Escudero	1994	2	33
Chile	Frei (Presidente Eduardo Frei Montalva)	1969	80	150
Chile and Germany	Bernado O'Higgins	1948	16	44
China	Great Wall	1985	14	40
China	Kunlun	2009	N/A	
China	Taishan	2014	N/A	20
China	Zhongshan	1989	15	30
Czech Republic	Mendel	2006	N/A	20
Ecuador	Maldonado	1990	N/A	22
Finland	Aboa	1989	N/A	20
France	Dumont d'Urville	1956	26	100
France & Italy	Concordia	1997	15	60
Germany	Kohnen	2001	N/A	28
Germany	Neumayer	1981	9	50
India	Bharati	2012	24	47
India	Maitri	1989	25	65
Italy	Mario Zucchelli	1986	N/A	90
Japan	Dome Fuji	1995	N/A	15

Japan	Syowa / Showa	1957	40	110
New Zealand	Scott Base	1957	10	85
Norway	Tor	1985	N/A	4
Norway	Troll	1990	7	40
Pakistan	Jinnah	1991	N/A	
Peru	Macchu Picchu	1989	N/A	28
Poland	Arctowski	1977	12	40
Romania	Law Racovita	1986	N/A	13
Russia	Bellingshausen	1968	25	38
Russia	Druzhnaya 4	1987	N/A	50
Russia	Mirny	1956	60	169
Russia	Molodezhnaya	1962	N/A	15
Russia	Novolazarevskaya	1961	30	70
Russia	Progress 2	1989	20	77
Russia	Vostok	1957	13	25
South Africa	SANAE IV	1962	10	80
South Korea	Jang Bogo	2014	15	60
South Korea	King Sejong	1988	15	60
Spain	Gabriel de Castilla	1990	N/A	14
Spain	Juan Carlos Primero	1989	N/A	14
Sweden	Svea	1987	N/A	5
Sweden	Wasa	1989	N/A	20
Ukraine	Vernadsky	1996	12	24
United Kingdom	Fossil Bluff	1961	N/A	6
United Kingdom	Halley	1956	15	70
United Kingdom	Rothera	1975	22	130
United Kingdom	Signy	1947	N/A	8
United Kingdom	Sky Blu	1995	N/A	6
United States	Amundsen-Scott	1956	75	250
United States	Byrd	1957		50
United States	McMurdo	1955	250	1000
United States	Palmer	1965	12	43
Uruguay	Artigas	1984	9	60

Blue background: year-round stations
White Background: Summer only station or air facility
Source : Antarctic Stations - Scientific Research Bases and Facilities (coolantarctica.com)

Appendix B: Antarctic Treaty Consultative Parties

Nation	Entry into force *	Consultative status **
Argentina	23-Jun-1961	23-Jun-1961
Australia	23-Jun-1961	23-Jun-1961
Belgium	23-Jun-1961	23-Jun-1961
Brazil	16-May-1975	27-Sep-1983
Bulgaria	11-Sep-1978	5-Jun-1998
Chile	23-Jun-1961	23-Jun-1961
China	8-Jun-1983	7-Oct-1985
Czechia	1-Jan-1993	1-Apr-2014
Ecuador	15-Sep-1987	19-Nov-1990
Finland	15-May-1984	20-Oct-1989
France	23-Jun-1961	23-Jun-1961
Germany	5-Feb-1979	3-Mar-1981
India	19-Aug-1983	12-Sep-1983
Italy	18-Mar-1981	5-Oct-1987
Japan	23-Jun-1961	23-Jun-1961
Korea ROK	28-Nov-1986	9-Oct-1989
Netherlands	30-Mar-1967	19-Nov-1990
New Zealand	23-Jun-1961	23-Jun-1961
Norway	23-Jun-1961	23-Jun-1961
Peru	10-Apr-1981	9-Oct-1989
Poland	23-Jun-1961	29-Jul-1977
Russia	23-Jun-1961	23-Jun-1961
South Africa	23-Jun-1961	23-Jun-1961
Spain	31-Mar-1982	21-Sep-1988
Sweden	24-Apr-1984	21-Sep-1988
Ukraine	28-Oct-1992	4-Jun-2004
United Kingdom	23-Jun-1961	23-Jun-1961
United States	23-Jun-1961	23-Jun-1961
Uruguay	11-Jan-1980	7-Oct-1985

Source: Parties (ats.aq)
*Date the countries deposited their instrument of accession.
**Date on which the ATCM granted the countries consultative status.
Blue: Signatorie States

Appendix C: Antarctic Treaty Non-Consultative Parties

Nation	**Entry into force ***
Austria	25-Aug-1987
Belarus	27-Dec-2006
Canada	4-May-1988
Colombia	31-Jan-1989
Costa Rica	11-Aug-2022
Cuba	16-Aug-1984
Denmark	20-May-1965
Estonia	17-May-2001
Greece	8-Jan-1987
Guatemala	31-Jul-1991
Hungary	27-Jan-1984
Iceland	13-Oct-2015
Kazakhstan	27-Jan-2015
Korea (DPRK)	21-Jan-1987
Malaysia	31-Oct-2011
Monaco	31-May-2008
Mongolia	23-Mar-2015
Pakistan	1-Mar-2012
Papua New Guinea	16-Mar-1981
Portugal	29-Jan-2010
Romania	15-Sep-1971
San Marino	14-Feb-2023
Slovakia	1-Jan-1993
Slovenia	22-Apr-2019
Switzerland	15-Nov-1990
Türkiye	24-Jan-1996
Venezuela	24-Mar-1999

*Date the countries deposited their instrument of accession.

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