

Blue Amazon, a Brazilian perspective in the South Atlantic geopolitics

Amazônia Azul, uma perspectiva brasileira no contexto da geopolítica do Atlântico Sul

Amazonia Azul, una perspectiva brasileña en el contexto de la geopolítica del Atlántico Sur

Amazonie Bleue : une perspective brésilienne dans le contexte de la géopolitique de l'Atlantique Sud

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Abstract

The Blue Amazon is an area of great national and international interest, as it is a source of economic and natural wealth. Therefore, from a geopolitical perspective, security and defense initiatives in this area are essential. This text aims to discuss how actions among actors, civilians and military are coordinated to promote sovereign rights and sustainable development of the Blue Amazon, thus looking at its impacts on the economic, social and environmental axes. In the context of growing interest in the region, Brazil has made efforts not only to maintain peace and security, but also to preserve the environment. Thus, this paper seeks to briefly present the wealth and interests at stake, some of the Brazilian initiatives and cooperation with other countries, and key issues for the geopolitics of the South Atlantic that should be considered in Brazil's strategy of action, such as ZOPACAS.

Keywords: South Atlantic, Blue Amazon, geopolitics, Brazil.

Resumo

A Amazônia Azul é zona de grande interesse nacional e internacional, sendo fonte de riquezas econômicas e naturais. Logo, sob uma perspectiva geopolítica, mostram-se necessárias iniciativas de segurança e defesa nessa área. Este texto se propõe a discutir como são as ações

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coordenadas de atores civis e militares para a garantia da soberania nacional e do desenvolvimento sustentável da Amazônia Azul, e quais são seus impactos nas vertentes econômica, social e ambiental. No quadro do crescente interesse pela região, o Brasil tem envidado esforços para a manutenção da paz e da segurança, e também para a conservação do meio ambiente. Assim, pretende-se expor de modo sucinto a existência dessas riquezas e interesses, algumas das iniciativas brasileiras e de cooperação com outros países, além de questões importantes para a geopolítica do Atlântico Sul que devem ser consideradas na estratégia de atuação do Brasil, como no caso da ZOPACAS.

Palavras-chave: Atlântico Sul, Amazônia Azul, geopolítica, Brasil.

Resumen

La Amazonia Azul es una zona de gran interés nacional e internacional, ya que constituye una fuente de riquezas económicas y naturales. Por lo tanto, desde una perspectiva geopolítica, se hacen necesarias iniciativas de seguridad y defensa en dicha área. Este artículo tiene como objetivo analizar cómo las acciones coordinadas entre actores civiles y militares contribuyen a garantizar la soberanía nacional y el desarrollo sostenible de la Amazonia Azul, así como sus impactos en las dimensiones económica, social y ambiental. En un contexto de creciente interés por la región, Brasil ha realizado esfuerzos para mantener la paz y la seguridad, así como para conservar el medio ambiente. De este modo, se pretende presentar de forma concisa las riquezas e intereses involucrados, algunas iniciativas brasileñas y de cooperación con otros países, así como cuestiones clave para la geopolítica del Atlántico Sur que deben ser consideradas en la estrategia brasileña de actuación, como el caso de ZOPACAS.

Palabras clave: Atlántico Sur, Amazonia Azul, geopolítica, Brasil.

Résumé

L'Amazonie Bleue est une zone d'intérêt national et international majeur, constituant une source de richesses économiques et naturelles. Ainsi, dans une perspective géopolitique, des initiatives en matière de sécurité et de défense s'avèrent nécessaires dans cette région. Cet article vise à analyser comment les actions coordonnées d'acteurs civils et militaires contribuent à garantir la souveraineté nationale et le développement durable de l'Amazonie Bleue, ainsi que leurs impacts dans les dimensions économique, sociale et environnementale. Dans un contexte d'intérêt croissant pour la région, le Brésil a déployé des efforts pour maintenir la paix et la sécurité, ainsi que pour préserver l'environnement. L'objectif est donc de présenter de manière succincte ces richesses et intérêts, certaines initiatives brésiliennes et coopérations internationales, ainsi que des enjeux géopolitiques importants de l'Atlantique Sud à prendre en compte dans la stratégie brésilienne, comme le cas de la ZOPACAS.

Mots-clés : Atlantique Sud, Amazonie Bleue, géopolitique, Brésil.

1 INTRODUCTION

Thinking about the Amazon in all its richness and complexity allow us to associate the land and the marine, the green and the blue Amazons, since what happens in one, certainly has effects on the other. Therefore, defending sovereignty and promoting the sustainability of our "great Amazon" requires a comprehensive analysis of all challenges and opportunities. Consequently, the Amazon can be considered the heartland of the Anthropocene (Barros-Plataiu *et al.*, 2025), the geological era marked by scientific warnings fueled by global risks stemming from the unsustainability of unequal growth on a global scale. However, when considering the Amazon, the terrestrial part – borders, forest, people, economic activities, among others – prevails over the maritime part (Guldberg *et al.*, 2025), and, generally, highlighting the need for a sustainable development model, necessary to replace “predatory patterns” in the region (Medeiros Filho *et al.*, 2025), or even the more recent socio-environmental approach presented in Inoue *et al.* (2025).

Along those lines, the text prioritizes a geopolitical approach, using the conceptual and analytical framework of the 21st century (Monteiro, 2021; Gonzales, 2024). Additionally, it adopts a political geography approach anchored in Castro's (2024, p. 78) proposal of the tripod: actor, space, and power. With the Brazilian State being the main actor, but not the only one (Gonzales, 2024, p. 77; Barros-Plataiu *et al.*, 2024); the Blue Amazon as the space of action; and the challenges for the defense of national sovereignty over the space and its resources as a source of potential conflicts of interest.

The Blue Amazon (Carvalho, 2004, *apud* Barros *et al.*, 2015, p. 205) is part of the South Atlantic, the ocean which washes the Brazilian coast, as well as that of 23 other American and African countries. It is an environment full of natural riches and diverse ecosystems, but it is also the birthplace of complex economic, political, and environmental issues. The Brazilian maritime space has been called the Blue Amazon due to its size, which resembles that of the Brazilian Legal Amazon, which, according to the Brazilian Institute of Geography and Statistics (IBGE), in 2022, had approximately 5,015,146 km². In April 2025, the United Nations Commission on the Limits of the Continental Shelf (CLCS) approved Brazil's request regarding the equatorial margin, adding approximately 360,000 km² to Brazilian maritime space, according to Agência Gov (2025). The total area of the claim before the aforementioned Commission will result in a maritime area of approximately 5.7 million km², according to the

Brazilian Navy (MB). As a result of the Continental Shelf Survey program conducted by the Brazilian Navy (phase 1 and phase 2), Brazil has requested primarily four areas, according to the Brazilian Navy website: in 2003, 960,000 km², distributed along the entire Brazilian coast; and, subsequently to Continental Shelf Survey (LEPLAC) 2, 3 areas (South - 170,000 km², in 2015; Equatorial Margin - 360,000 km², in 2017; and Eastern/Southern Margin - 1.5 km², 2018).

However, the blue and green Amazon regions are similar not only in size, but also in the rich biodiversity found in these areas. The green biome is considered one of the largest and most diverse biomes in terms of fauna and flora (Veríssimo *et al.*, 2024; ISPN, 2025), while the blue biome contains its own ecosystems that provide services that make life on planet Earth viable (Seixas *et al.*, 2023).


The maritime area is also where more than 80% of international trade passes through (in the Brazilian case, this figure reaches over 95%, according to the Brazilian Navy), and submarine cables are fundamental for global communication. The issue of sovereignty, which necessarily permeates this space, cannot be ignored. Coastal countries often have territorial disputes over sovereignty and jurisdiction over maritime areas and their resources. In the proper defense of these interests, it is important to know this space and its resources, to monitor, protect, and preserve it.

This article will focus on Brazilian interests regarding the Blue Amazon, addressing the Brazilian maritime area and its strategic surroundings from a geopolitical perspective. Thus, it seeks to answer the question: what are the coordinated and collaborative actions of civilian and military actors for the sustainable development of the Blue Amazon? And secondarily, to address what its impacts are in the economic, social, and environmental aspects.

Given that the abundance of strategic natural resources motivates the covetousness of third parties, the issue of the use and protection of these resources must be analyzed strategically (Andrade *et al.*, 2020b). According to Romana (2016, p.15), for a State to be more efficient in its achievements, a strategy is necessary, which "corresponds to the pursuit of maximum effectiveness in the State's action in achieving its critical goals".¹

According to Vaz (2011), the South Atlantic, which previously occupied a secondary role in the interests of the great powers, has come to occupy a strategic and relevant space in

¹ Free translation by the translator of the original: "correspond[a] à procura da eficácia máxima na ação do Estado na realização dos seus fins críticos".



the world context due to a new geopolitical positioning of the great powers resulting from the discovery of natural resources with economic value and the increase in trade flows in the region. Brazil considers the countries of South America, the African countries bordering the South Atlantic, and this maritime space, as well as Antarctica, as its strategic environment, that is, an area of priority interest to the country, according to the National Defense Policy (Brasil, 2025).

The countries that share the South Atlantic Ocean, on the American side (South America) and on the African side, have particular issues, some of which differ from those of Brazil, such as Argentina, for example. This country has a sovereignty issue over part of its territory (the Falkland Islands). Or, there's the issue of piracy, among others, currently faced by African countries, especially in the Gulf of Guinea. In the case of Brazil, concern regarding its maritime area relates to security and defense, environmental, commercial, economic, and scientific aspects. Thus, the Brazilian State began to develop projects for the preservation, exploration, monitoring, and defense of this area, such as the Continental Shelf Survey (LEPLAC), the Marine Spatial Planning (PEM), the Antarctic Program (PROANTAR), and the Blue Amazon Management System (SisGAAz), among other examples cited by Santos *et al.* (2022).

The methodology of this work was based on official Brazilian documents and secondary sources, with the purpose of exploring the main geopolitical challenges facing Brazil regarding the Blue Amazon, reinforcing the importance of adequate priorities, investments, means, instruments, and public policies for the surveillance and defense of this area.

The text is divided into five sections. This introduction presents the analytical framework of the subject; the second section presents the riches of the Blue Amazon; the third section outlines some actions that the State is undertaking in this maritime space; and the fourth section discusses cooperation actions with other countries for the South Atlantic. The fifth section concludes the article with its final considerations.

2 THE ECONOMIC, SOCIAL AND ENVIRONMENTAL ASPECTS


The choice of these three dimensions is a simplification, but it is justified by the definition of the concept of sustainable development, enshrined in the Brundtland Report of 1987 and corroborated at the United Nations Conference on Environment and Development (Earth Summit or Rio 92). The three pillars of the principle of sustainable development are

environmental criteria, social justice, and economic viability. In terms of politics and law, it can be interpreted as the balance between the interests of different stakeholders so that the decision can be effectively implemented. In other words, it requires dialogue, transparency, legality, and legitimacy during the decision-making process. With undeniable diversity and complexity, sustainability on a national scale is always an immense challenge, according to Ribeiro *et al.* (2025).

The natural resources are still little known, starting with the rich local biodiversity and the existence of unique ecosystems that provide important services for the maintenance of life on Earth. In a 2010 publication, the Ministry of Environment and Climate Change (MMA) divided the coastal and marine region into several ecosystems, such as dunes, beaches, wetlands and flooded areas, estuaries, coastal sand dunes, mangroves, rocky shores, lagoons and marshes. These ecosystems interact with five terrestrial biomes (Atlantic Forest, Amazon, Caatinga, Pampa, and Cerrado), creating environments that provide unique ecosystem services, as explained in Ipea (2024).

In this context, the interactions between the ocean and the climate constitute an important environmental issue (WMO, 2025), even more so at the time of COP 30 (Conference of the Parties on the climate regime), to be held in Belém do Pará. The ocean can be considered a maintainer of the atmosphere's temperature, since it has a great capacity to retain heat and distribute this balance across the planet through water evaporation and ocean currents. Furthermore, one of the functions of water is to sequester and store carbon from the atmosphere. However, Campos (2014) states that global warming and increased air pollution lead to warming waters, increased melting of polar ice caps, decreased salinity and acidification of waters, rising sea levels and, consequently, changes in ocean currents, altering the ocean-atmosphere balance that provides the conditions for life on Earth.

When considering activities in Brazilian maritime space, some attract more attention than others; however, they cannot be considered more or less important. The first of these is maritime transport, which accounts for more than 95% of Brazilian international trade, according to the Brazilian Navy. Alongside maritime transport, there is the shipbuilding industry, which is also driven by the construction of military vessels. It is also important to consider that maritime transport requires adequate port infrastructure. In addition to infrastructure, the construction of the vessels themselves is now requiring modification, and the most important of these, at the moment, is the decarbonization of the vessels (considered in the



BNDES Azul project in Brazil). Regarding traffic through the South Atlantic, Silva (2014) had already addressed possible changes: the expansion of the Panama Canal; the route through the Arctic; and regional integration routes. However, currently, two more central factors need to be considered: the hyper-competitive geopolitical, economic, and technological rivalry between the governments of China and the United States, as well as the deleterious effects of climate on the navigability of the Panama Canal and the South Atlantic shipping routes.

The second relevant activity is coastal tourism, which, according to Carvalho (2018), is the sector that employs the most people in Brazil. Globally, activity has been growing and is now almost at the level of 2019, before the pandemic (World Bank, 2025). Specifically regarding coastal tourism, the European Commission states that this sector is responsible for the highest gross value added and the largest number of jobs related to the blue economy in Europe (European Commission, 2025).

It is important to highlight another economic and strategic point: communications. Submarine cables pass through the South Atlantic, allowing Brazil to communicate with other continents. The integrity of these cables is fundamental in guaranteeing the flow of data between countries.

Other activities stem from the exploration or exploitation of existing natural resources. According to the National Petroleum Agency's Monthly Oil and Gas Production Bulletin, in February 2025, 97.4% of oil production came from offshore wells, with 78.8% from the pre-salt zone. However, energy production activity in the maritime zone has diversified. There are several studies on the production of renewable energy from the sea, such as offshore wind, tidal power, wave energy, ocean currents, thermal gradients, and salinity energy (EPE, 2014).

Fishing, whether artisanal or industrial, is a significant activity, and after a period without official information from the Brazilian government, some data has recently been published. Although this data does not yet constitute complete statistics, it can be found on the website of the Ministry of Fisheries and Aquaculture. The data refers to Brazil and includes the number of fishermen, whether artisanal or industrial, as well as characteristics such as gender and education level. The number of vessels is specified by size. Aquaculture was also included in the data. It is important to note that the information provided includes data from both inland and marine waters.

Marine mining, including sea salt, ores, rock salt, precious and semi-precious stones, as well as the exploration of polymetallic nodules (deposits of certain types of ores, such as

manganese, cobalt, nickel, and copper on the deep ocean floor), is the most controversial activity in terms of environmental preservation. With the increased search for natural resources in the sea (blue acceleration), the exploration of certain minerals that are mainly involved in the clean energy production process has intensified. However, this exploitation causes degradation to the marine environment which, due to the slow recovery process, can be considered the extraction of a non-renewable resource, such as the extraction of rhodoliths used in the fertilizer production process.


From an environmental standpoint, the overexploitation of ocean resources due to the search for natural resources by various nations has highlighted concerns about the conservation of the marine environment. The accelerated exploitation of these resources can cause imbalances in this uniquely characterized environment, affecting biodiversity and the ecosystem services provided by the ocean, and potentially even impacting the global climate.

With a geopolitical focus on the strategic environment, the Brazilian State, as the main actor, must exercise its power by regulating the use and protection of this maritime space, and to this end it must implement public policies that consider all the factors involved, namely economic, environmental and sovereignty factors. Furthermore, it should be taken into account that a portion of the maritime space has been the subject of a claim before the Commission on the Limits of the Continental Shelf, resulting in an increase in area and consequently increasing the biological and mineral resources to be protected.

3 INITIATIVES FOCUSED ON THE SEA

3.1. SCIENCE, TECHNOLOGY, INNOVATION AND ENVIRONMENT

The aim of this article is not to exhaustively explore all initiatives related to the sea, but rather to demonstrate, through some of them, the complexity of factors, actors, and variables that these policies need to consider. To organize activities (such as scientific research, environmental conservation, and oceanographic monitoring) that are carried out at sea, Brazil develops the Sectoral Plan for Marine Resources (PSRM). It outlines the most relevant actions, along with their respective objectives, goals, products, and sources of funding for their development. In January 2025, the 11th PSRM was approved, which is expected to be in effect until 2027.



With the objective of “establishing the institutional, strategic, normative and regulatory bases that can be used to support the decision-making process related to the use of the sea and its management and conservation, in the public or private sphere”, as established in the XI PSRM, PEM (described in item 5.9) faces the challenge of creating an arena where public and private interests of the various actors in society are weighed, in addition to the various existing and future public policies for the Brazilian maritime space. In this process, it is essential that the Brazilian State remains the main actor and exercises its power in coordinating the activities that take place in maritime space. According to the definition adopted by the Intergovernmental Oceanographic Commission (IOC - UNESCO) cited in Andrade and Carvalho (2025, p. 10), "PEM is a public process of analysis and allocation of the spatio-temporal distribution of human activities in marine areas with ecological, economic and social objectives, generally listed by a political process."² PEM must be implemented by 2030, in accordance with an international commitment made by Brazil in 2017 at the II Ocean Conference, promoted by the UN.

To make PEM viable in Brazil, the development of a pilot project is underway. In this project, the continental shelf has been divided into four areas: South, Southeast, Northeast, and North. Initially, the funds are not budgetary, as they come from donations from the National Bank for Economic and Social Development (BNDES) for the bidding processes in the South, Southeast, and North regions, and from resources from the Brazilian Biodiversity Fund (Funbio) for the process in the Northeast region. The Brazilian Navy's website dedicated to the PEM states that the project for the Southern region is the most advanced, currently in the fourth part of the first phase. The Northeast region comes in second place, being in the third stage of the first phase. The Southeast region has already had its project approved and is beginning its implementation. For the North region, there is still no information on its progress.

Regarding the budgetary issue, the 2024-2027 Multiannual Plan (PPA) includes the Ocean, Coastal Zone and Antarctica program in its axis 2 - "Economic development and socio-environmental and climate sustainability". This program's primary objective is "to expand scientific and technological knowledge, conserve biodiversity, and promote the sustainable use of natural resources through the effective management of coastal and marine areas, in order to

² Free translation by the translator of the original: “o PEM é um processo público de análise e atribuição da distribuição espaço-temporal das atividades humanas em áreas marinhas com objetivos ecológicos, econômicos e sociais, em geral, listado por processo político”.


advance the country's interests in the ocean, coastal zone, and Antarctica." This topic fits both as a core program in the 2024-2027 PPA and as part of its Cross-Cutting Agenda.

Concurrently, other important actions have been developed to encourage the strengthening of policies for the sea. One of them is the official definition of the ocean economy. The "Ocean GDP" Working Group, composed of representatives from various areas of government, has objectives established by Ordinance 23-MB/MD, dated January 27, 2025, including defining the concept of the ocean economy and developing a methodology for its measurement, among others.

In addition to this technical group, others focused on maritime issues were created, such as the Executive Committees for the Blue Economy and PEM. The Executive Committee "Blue Economy" is coordinated by the Ministry of Science, Technology and Innovation and its main objective is to "plan, develop, maintain and implement a Work Plan, aiming at fulfilling the goals of the "Blue Economy" Action, which are part of the current PSRM (Program for the Development of the Blue Economy). The PEM committee, on the other hand, is composed of 23 members (representatives of public bodies and institutions) and is jointly coordinated by the Ministry of Environment and Climate Change and the Secretariat of the Interministerial Commission for Marine Resources.

In this same context, Brazil, as a participant in the UN's 2030 Agenda, has taken on challenges such as the targets of Sustainable Development Goal (SDG) 14 - Life Below Water and actions related to the Ocean Decade (2021-2030). Within the framework of the 2030 Agenda and the monitoring of SDG 14 targets, on the *odsbrasil* portal, the country developed indicators for only three targets, and for these three, there was a positive performance, according to the National Voluntary Report (Brasil, 2024). Since there are no indicators developed for the others, it is impossible to verify whether or not they are being met. However, this lack of data does not make SDG 14 any less relevant. Beyond the concern for this SDG, it is necessary to emphasize the importance of its interrelationship with the other SDGs. SDG 14 is related in some way to all the other SDGs, demonstrating the importance of the ocean and the blue economy for global sustainable development (Santos, 2022; Barros-Plataiu *et al.*, 2024).

The Ocean Decade emphasizes ocean science (in its various aspects, such as biological, biotechnological, economic, political, and social, for example) as a driver of sustainable development, combating risks and threats (such as pollution), and integrating



groups of people with a common goal: to better understand the ocean, its interactions with the climate and coastal communities, for example, and its potential.

In Brazil, the Ministry of Science, Technology and Innovation is the "coordinator" of actions related to the Ocean Decade, through the National Implementation Plan for the Decade of Ocean Science for Sustainable Development, which, in turn, is part of the Science at Sea Program. According to Christofolletti *et al.* (2021), as part of the Decade's activities, workshops were held, coordinated by various sectors of society (public, private, international organizations and academia), and with the participation of the population. Brazil has also focused on the education of children and young people, with the ambition of increasing the sensitivity of future decision-makers on ocean issues. In 2025, UNESCO recognized Brazil as the first country to implement blue education in school curricula.

In parallel, the Brazilian Navy is conducting the Sectoral Plan for Marine Resources — currently in its 11th edition — which includes a set of actions focused on maritime issues. In this context, the Navy acts both as a coordinator and as a collaborator with other government agencies, promoting initiatives dedicated to maritime affairs. It is important to highlight the concern of the above initiatives with sustainability, which can be observed in the sustainable development programs, investments in clean energy, and biodiversity conservation programs mentioned above. These concerns are accompanied by a predominant issue: that of sovereignty. According to Medeiros Filho (2022), a strong State is necessary in this process of implementing national strategies within the current framework of a multilateral approach.

3.2. SOME INITIATIVES RELATED TO DEFENSE AND SECURITY

Of the three key documents for Brazil's defense, two directly address the maritime environment. These are: the National Defense Policy - PND (2005, 2018, 2024) and the National Defense Strategy - END (2008, 2024). Both documents recognize the defense and national security of the South Atlantic maritime space as a priority.

Considering the importance of the Blue Amazon, both for its abundance of resources and for its strategic and geopolitical value for national defense, it is essential that the State dedicate special attention to this maritime area, also through public defense policies. From this perspective, the Brazilian Navy has been undertaking efforts through strategic programs aimed at operationalizing actions for the protection and monitoring of the sea. Therefore, it is worth

mentioning three strategic programs conducted by the Brazilian Navy directly related to the defense of Brazilian sovereignty in the South Atlantic, as observed below.

According to Andrade, Barros-Platiau and Hillebrand (2020), the Brazilian Navy's Nuclear Program – PNM – has as its priority objective to enable Brazil to master the nuclear fuel cycle and the construction of an onboard nuclear plant (two Navy projects are under this program). This program has a spin-off effect, since the unfolding of this knowledge should reach other sectors of the economy, such as the energy, health, and agro-industrial sectors, according to the Brazilian Navy. Directly related to defense, the program is fundamental for the development of the reactor for Brazil's first nuclear-powered submarine, which is being developed under another Brazilian Navy program, PROSUB.

The second important program for the defense of the Blue Amazon is the Modernization of Naval Power. This program is subdivided into four subprograms: Submarine Development (PROSUB), Tamararé Class Frigates (PFCT), Acquisition of Hydro-oceanographic Resources (PROHIDRO), and those related to the Marine Corps (CFN), such as PROADSUMUS. These subprograms aimed at strengthening Naval Power have a dynamic effect on the economy, science and technology areas, and Brazilian industry.

As a third important program for the Blue Amazon, we can mention the Blue Amazon Management System (SisGAAz), a supervisory system for monitoring this large area that is the Blue Amazon, developed by the Navy. This system has the mission of "continuously monitoring and protecting maritime areas of interest and inland waters, their living and non-living resources, their ports, vessels and infrastructure, in the face of threats, emergencies, environmental disasters, hostilities or illegalities, in order to contribute to the security and defense of the Blue Amazon and to national development" (as defined by the Brazilian Navy). These activities are carried out by a set of systems that should connect with other Brazilian agencies and institutions such as the Federal Police, Brazilian Institute for the Environment and Renewable Natural Resources (Ibama), the Federal Revenue Service, Petrobras, among others.

Figure 1 - SisGAAz (scheme)



Source: Brazilian Navy.

Furthermore, it is worth mentioning the "Expanding Logistical Support Capacity for Operational Resources" Program, which is being developed with the objective of increasing the defense and security capacity of the Blue Amazon region through the construction of a multi-purpose naval complex at the mouth of the Amazon River. It should be considered that all actions taken by the State to strengthen the supervision, defense, and security of maritime space, including strengthening deterrent power, contribute to a more effective positioning of the country in regional geopolitics.

4 BRAZILIAN INTERACTIONS IN THE SOUTH ATLANTIC

The National Defense Strategy makes it clear, in its item 1, that Brazilian concern is not limited only to the space of Brazilian Jurisdictional Waters and the Area (international space), when it proposes that "to increase this security, it is important to expand an environment of cooperation with countries bordering the South Atlantic, especially through their Navies"³,

³ Free translation by the translator of the original: "para o incremento dessa segurança, é importante a ampliação de um ambiente de cooperação com países limítrofes do Atlântico Sul, sobretudo por meio de suas Marinhas".

in addition to seeking to reduce the possibility of conflicts in the strategic environment, in the maritime case, through the consolidation of the South Atlantic Peace and Cooperation Zone (ZOPACAS).


According to Reis (2011), Brazil's concerns with maritime space are not limited to exclusively Brazilian issues, but also to the international space that separates Brazil from Africa, due to the defensive perimeter, and therefore, under Brazilian maritime power.

Also important for the region are bilateral and multilateral agreements relating to military activity. The United States maintains ships off the African coast, the North Atlantic Treaty Organization (NATO) conducts military exercises in the Cape Verde region, and Russia, off the coast of Venezuela. It is also worth remembering that NATO can access the entire South Atlantic area as a base for its military operations through the United Kingdom's islands located in the region (map 1 below). However, this access to the South Atlantic is currently a political-strategic decision. In 2010, this organization revised its Strategic Concept for the Defence and Security of the members of the North Atlantic Treaty Organization, and declared that its actions are not restricted only to the North Atlantic, but can extend beyond its borders, wherever there is "instability or conflict [...] that could directly threaten the security of the Alliance, especially fueling extremism, terrorism or illicit transnational activities, such as arms, drug and human trafficking" (NATO, 2010, item 11, from the section "The security environment").

Figure 2- British islands in the South Atlantic



Source: Naval Power website <http://www.naval.com.br>.



The international presence, mainly of other navies, in the region is primarily due to the US Fourth Fleet, focused on operating in the Caribbean and the South Atlantic, and the British Navy, which is present due to the need to protect the islands under its control. The United Kingdom owns several islands in the South Atlantic (Ascension, Saint Helena, Tristan da Cunha, Gough, South Sandwich Islands, South Georgia, South Orkney Islands, and the Falkland Islands).

The geopolitical initiatives of Portugal and Spain in the South Atlantic were demonstrated by Portugal in 2010 with the initiative to include the South Atlantic in NATO's strategic concerns. Spain, in 2009, held a meeting that resulted in the Lanzarote Declaration, which emphasized the need for cooperation between the countries of the South Atlantic area to face geopolitical threats and challenges. In addition to the initiatives of Portugal and Spain, there are several programs developed by the European Union and its constituent countries (such as bilateral agreements) for the regional scope, mainly focused on the African continent (such as, for example, the European Union Maritime Security Strategy and the European Energy Security Strategies).


In the African continent, the Gulf of Guinea has received special attention from Brazil. This maritime area is rich in natural resources, primarily oil. However, despite these resources, the countries in this region are considered Fragile or Failed States according to the Organization for Economic Cooperation and Development's (OECD, 2021) definition, as they have low development indices and high rates of violence. In that region, Brazil is concerned about the high rates of piracy, armed robbery of ships (especially oil tankers), trafficking in human beings, weapons and drugs, terrorism, illegal immigration, illegal fishing, according to Guastini (2020), and the consequent environmental degradation. Brazil, like other countries, individually and/or in groups such as the European Union, has initiatives to support regional development and defense, and the construction of its identity, good governance, and the strengthening of the rule of law. Brazil has several bilateral technical, commercial, social, cultural, and military cooperation agreements with all these countries located in the Gulf of Guinea, in addition to military operations for the training of local forces, such as Guinex-II.

4.1. SOME TREATIES COVERING THE SOUTH ATLANTIC REGION AND THE BRAZILIAN STRATEGIC ENVIRONMENT

Brazil is a signatory to several important international agreements for the Blue Amazon. The first treaty that should be mentioned is the United Nations Convention on the Law of the Sea, which defines territorial sea and contiguous zone, the rules applicable to ships when passing through territorial seas, how resources, living or non-living, seabed and subsoil can be exploited, that is, it defines in general terms how ocean governance "works".

The Treaty of Tlatelolco, signed by Brazil in 1967, deals exclusively with the prohibition of nuclear weapons in Latin America and the Caribbean, allowing the use of nuclear energy for peaceful purposes by these countries. It encompasses the Blue Amazon, when in its article 3, it establishes that the term "territory" includes the territorial sea and other spaces where the country exercises sovereignty. It should also be mentioned that this treaty has two protocols. The first extends the terms of the treaty to countries that have territories in the region. The second protocol concerns the intention of countries that possess nuclear weapons not to use them in this region, or against countries that are signatories to this treaty. Beyond its importance for local and global geopolitics, this treaty is primarily important for the Blue Amazon in terms of prohibiting nuclear testing in the region. It is public knowledge that some nuclear tests have been conducted in maritime zones, destroying biodiversity and affecting coastal populations.

One international initiative that should be mentioned is the creation of the South Atlantic Peace and Cooperation Zone (ZOPACAS), led by Brazil in 1986. It is not a treaty, but an agreement and a forum that seeks to maintain peace and security and regional cooperation among the 24 adhering countries (bordering the South Atlantic). According to item 2 of UN Resolution 41/11 of 1986, the agreement is mainly focused on cooperation between these countries to promote economic and social development, environmental protection, conservation of living resources, and the maintenance of peace and security in the region. According to Queiroz (2023), Brazil is a key player in this multilateral forum. In 2026, the ninth ZOPACAS meeting is expected to take place in Brazil, when it will assume the pro tempore presidency. The Antarctic Treaty of 1959 defines the area of the Antarctic continent covered by the Treaty (south of the 60°S parallel). The treaty establishes the peaceful use of the continent and the demilitarization of the region, with the main activity permitted on the continent being scientific research by the signatory countries (Mattos, 2014). Although at first glance it may seem out of



context to cite an agreement concerning a continent bordered by another ocean, the Antarctic, since 2012, Antarctica has been considered, by the National Defense Strategy, as part of Brazil's strategic environment and, therefore, an area of its geopolitical interest. In this sense, PROANTAR allows Brazil to maintain its scientific base in Antarctica to carry out various research projects, many of which are funded by the Coordination for the Improvement of Higher Education Personnel (Capes) and the National Council for Scientific and Technological Development (CNPq), such as the INCT of the Cryosphere, based at the Federal University of Rio Grande do Sul.

In addition to these treaties and the ZOPACAS already mentioned, Brazil is also a signatory to the Mindelo Declaration (2023), which resumes cooperation in the South Atlantic based on the new international order, the Convention on Biological Diversity, and the Nagoya Protocol. Although it has signed the Treaty on Biodiversity Beyond National Jurisdiction (BBNJ), Brazil has not yet ratified it. There are also several bilateral treaties between Brazil and countries bordering the Atlantic, which can be consulted on the Brazilian government's website, on the Concordia portal.

5 CONCLUDING REMARKS

The green and blue Amazon regions share many common characteristics, such as their vast size, enormous biodiversity, and a commitment to promoting sustainable development, in addition to a vital interdependence with climate change. Analyzing the many facets related to the Blue Amazon and regional geopolitics is quite complex and diverse. Beyond the well-known need to control activities in the region to curb predatory patterns of exploitation of land and sea resources, Brazil faces challenges related to the current crisis of international cooperation and multilateralism. Therefore, the link between the State, power, and space requires special attention from the government and its various stakeholders.

Security and supervision of the maritime area are paramount factors with regard to vessel traffic and submarine cable communications. Both activities (supervision and security) are the responsibility of the Brazilian Navy, which, in order to fulfill this mission, has invested especially in the modernization of its fleet, the nuclear program, and the improvement of the SisGAAz. With these programs, the Brazilian Navy can improve the process of obtaining

information for decision-making and, therefore, improve its performance, including in crisis situations. In this sense, strengthening Brazilian naval power is important.

One issue that runs through all these points is how to harmonize economic activities with the more sustainable use of marine resources. To meet this challenge, an instrument that has proven to be efficient is Marine Spatial Planning, which allows for the organization of activities in time and space, as well as the management of conflicts and interests among the various actors. The development of this management tool, which is already underway in Brazil, can point to development promoted by the exploitation of rich living and non-living resources and by activities in the ocean space, without losing sight of the concern for the preservation of the marine environment.

No less important for the ocean, as proposed by the Ocean Decade, is support for scientific projects in the most varied areas of knowledge, as well as blue education, and always in an integrated way. We need to better understand life in the region and train future decision-makers and researchers.

Brazil must maintain its geopolitical focus on the Blue Amazon from both a diplomatic and military perspective, considering the environmental, economic, and social aspects, as discussed in this article. However, it is necessary to deepen the synergy between these approaches so that the leading role of the Brazilian State in the region can be effective and also encourage and improve collaborative actions with neighboring countries. Only a sovereign, well-organized state with effective governance instruments can implement complex actions that combine science, concern about climate change, environmental conservation needs, biodiversity preservation, without losing sight of economic and social development.

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