

Chapter 9

The Environmental Dimension of the “Brazilian Blue Amazon”: Environmental Rights and Duties on the Continental Shelf



The ‘Blue Amazon’ is not intended to create a sort of dispute with the Green Amazon. [...] What we intend is to draw attention of the Brazilian society to another immense area for which we also have an obligation to care, and which deserves similar concern, given its strategic and economic importance.¹—Roberto de Guimarães Carvalho

Up to now, this work has raised questions ranging from the possibility of legally delineating the outer limits of the continental shelf, to the legal conflicts which may arise from the extension of a coastal state’s marine environmental jurisdiction over the seafloor. To states delineating their outer continental shelves, an extended maritime area implies not only prospects of wealth and enlarged sovereign rights, but also increased responsibilities over those areas. A reasonable next step, in line with the original research plan, is to scrutinize a particular state’s legal and institutional framework in place for the management of the maritime spaces under national jurisdiction. That state is Brazil, and the maritime zones under examination are the domestically labelled “Brazilian Blue Amazon”, with stark emphasis on the continental shelf within and beyond 200 nm.

Hence, this part is dedicated to analyzing Brazilian domestic *substantial* and *procedural* obligations concerning the management and conservation of the marine environment in face of continental shelf activities. The main goal of which is to assess (i) the domestic legislative framework’s consistency with international law, and (ii) the country’s legal and institutional preparedness to conduct a sustainable exploration and exploitation of natural resources of the seabed under national control. In the Brazilian case, despite the absence of disputed maritime areas or neighboring conflicts, it is unequivocal that the expansion of the continental shelf

¹“A Amazônia Azul não tem como propósito criar uma espécie de disputa com a Amazônia verde [...] O que pretendemos é chamar a atenção da sociedade brasileira para uma outra imensa área pela qual também temos obrigação de zelar e que deveria merecer os mesmos cuidados e preocupações, tal a sua importância estratégica e econômica”. Roberto de Guimarães Carvalho, ‘A “Amazônia Azul”’, *Folha de São Paulo* (São Paulo, 11 May 2005), section Debates. Free translation.

may trigger legal questions, especially environment-related ones. Brazil is known for its “territorialist” stances towards the sea, as seen previously. For that, it is paramount to assess the Brazilian legislative and institutional adequateness to manage the extended zone, a study which has not yet been thoroughly conducted neither in Brazil, nor abroad, and which would serve not only as legal guidelines to Brazilian future regulations on the field, by highlighting international duties, but also identify domestic lacunae in terms of marine environmental legislation and policies.

Within Brazilian academic circles, publications on the Blue Amazon initially focused on international relations and politics and were dedicated to the strategic/defense element of the Brazilian maritime space.² References to the societal and environmental challenges arising from the delineation of the outer limits of the continental shelf do exist, yet *en passant*.³ This book engages, thus, with the governance and regulation of the marine environment of the continental shelf, a pioneering approach on this specific maritime space in Brazil, with the intention to contribute to more effective ocean governance schemes domestically, as well as to more updated legislations, or regulations caring for the marine environment.

This work does not aim at exhausting the comprehension of possible conflicts and lacunae concerning the whole of the marine environment. To the contrary, it aims at offering a detailed examination of the legal environmental treatment given to one maritime zone within Brazil: the continental shelf.⁴ Such a focus connects with the initial inspiration to conduct this research, i.e. to assess the legal (environmental) implications of the delineation of the outer continental shelf limits, and the potential normative conflicts which could emerge from such extension of economic and environmental jurisdiction seawards.

In short, this is a qualitative research, grounded on geopolitical, institutional and legal analyses, with resort to official and officious documents, both primary and secondary sources. The *methodology* employed for that end is the case study research. Thus far, this work has laid the theoretical and factual foundations for detailed analysis of a specific country and its normative and institutional framework. Following up on the previous considerations, this chapter is devoted to the “intensive

²Note that the concept of “maritime space” has different meanings in legal and international political studies. In legal terms, “maritime spaces” are usually employed to depict the maritime zones created by UNCLOS (territorial sea, contiguous zone, EEZ, continental shelf, high seas, the Area, etc.), whereas in international relations’ papers the concept seems to acquire a broader meaning, that of a physical medium composed of water where power relations develop. In this sense, the “South Atlantic Ocean” is often analyzed as a relevant maritime space to be studied and understood, and whether it may be construed as a “region” in international political terms or not. For an example, see Hoffmann and Marcondes (2017), p. 234.

³See generally Silva (2013), Oliveira et al. (2018) and Machado (2015).

⁴This work understands that the marine environment is complex and that its regulation should adopt a holistic and integrated perspective, and precisely this vastness and complexity calls for the specification of the object under scrutiny, if the research is to succeed in conducting analyses and reaching credible conclusions. In fact, every scientific study is narrowed down to the analysis of a particular aspect of a broader whole, which does not mean it denies the need for integrated solutions to problems affecting that particular universe.

study of a single case which draws on observational data and promises to shed light on a larger population of cases”.⁵ The Brazilian Blue Amazon case comprises the phenomena that the argument seeks to make, the argument that without a domestic legal and institutional framework consistent with international law (namely UNCLOS and the CBD), the expansion of the continental shelf may reinforce suspicions against the detrimental effects of an enhanced territorial temptation of coastal broad-margin states.

It is a highly focused research, which has chosen depth over breadth. It scrutinizes the Brazilian domestic legal and policy framework on marine environmental protection of the continental shelf, but seeks to serve as a platform for understanding domestic constraints to effective marine governance and regulation, which may be shared by other developing and developed coastal countries, thus making it possible to resort to this study and its conclusions into a larger context. The research is observational, “an observational form of analysis”, aimed at a “causal inference”. In this sense, the research is predominantly empirical, drawing on the theoretical ground built in previous chapters, as well as in the below-explained mixture of political agendas, laws, action plans and governmental programs—those are the fundamental primary documents which feed the analyses made herein. Incidentally, this part will be informed by cross-case comparisons, to add credibility to the research, e.g. marine rules and institutional arrangements held in Portugal.

Still on the methodological page, one must justify the option for a specific case in a case study research, i.e., why Brazil and its Blue Amazon. Despite claims within Brazil that the country has never experimented an “economic maritime era”,⁶ Brazil has undoubtedly been a major player in international ocean negotiations and law-making. To start with, reference ought to be done to the country’s participation in international talks for current binding and non-binding oceanic instruments. Here, Brazil has been playing a proactive role in shaping the contemporary law of the sea, particularly in the second half of the twentieth century. The great number of international maritime treaties and conventions signed and ratified by the Brazilian state suggests the country’s dedication to the international rule of law applied to oceans.

Examples of those instruments on the protection of the marine environment include: the 1946 Convention for the Regulation of Whaling;⁷ the 1959 Antarctic Treaty;⁸ the 1966 Convention on the Conservation of Tuna and Related Fish of the

⁵Gerring (2017), p. 28. John Gerring calls this sort of highly specialized study a “small-C study”, as it deals with either one or very few cases.

⁶To the East, Brazil had its extremely long coast, the open seas without international straits nor opposing neighbors. To the West, the vast, unexplored and unoccupied territory, which grounded fears of territorial losses and sovereignty weakness. Historically, there was no stimulus to navigational adventures, nor the longing for maritime sovereignty. That view is embraced by Soares (2014), p. 259.

⁷Promulgated by Decree no. 73.497, 17 January 1974.

⁸Ratified by Brazil on 16 May 1975.

Atlantic;⁹ the 1969 Convention on Civil Liability for Damage Caused by Oil Pollution (OILPOL);¹⁰ the 1972 London Dumping Convention;¹¹ the 1973 Convention for the Prevention of Pollution Caused by Ships (MARPOL) and its respective 1978 Protocol;¹² the 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCALMR);¹³ the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal;¹⁴ the 1990 International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC);¹⁵ the 1992 Convention on Biological Diversity,¹⁶ among others.

In addition to that, Brazil participated in the First Conference on Law of the Sea (1958) and signed its four Conventions and Optional Protocol; the Second Conference and, finally, joined the Third Conference, from 1973 until 1982.¹⁷ As confirmed from this list, Brazilian commitment to developing the international law of the sea has been consistent and constant, even if the country's practice may have experimented changes through time. In fact, as the international society changes, countries adapt and postulate new parameters for the behavior of international actors, Brazil being no exception.

Yet, Brazilian stances have not always enjoyed peaceful international head-nods, and that is precisely another reason for studying Brazil: the country's record of controversial attitudes. In fact, Brazil's practice regarding coastal state's jurisdiction on the continental shelf has been contentious, with the country becoming notorious in the past for pushing coastal states' authority over adjacent waters beyond the acceptable by naval powers. It was the case of Decree 1.087/1970, which established a 200 nm territorial sea just years prior to the kickstart of the Third Conference, as well as the country's prominent role during those tough negotiating years.

Despite Brazil's past of participation in international oceanic negotiations, the challenges ahead are monstrous. In light of the country's grandiose narrative of the Blue Amazon and the need to exercise sovereignty and jurisdiction thereon, one ought to examine the Brazilian legal and institutional preparedness to address questions arising from the management of its maritime spaces. It is, thus, the case to review the country's marine environmental legislation and assess whether normative and institutional conflicts may be hampering the principled governance of Brazilian maritime spaces. For instance, one ought to assess the consistency of domestic instruments, such as Resolution 003/2010 of the Interministerial

⁹Promulgated by Decree no. 65.026, 20 August 1969.

¹⁰Promulgated by Decree no. 79.437, 28 March 1977.

¹¹Promulgated by Decree no. 87.566, 16 September 1982. The 1996 Protocol to the London Dumping Convention has not been ratified by Brazil.

¹²Approved by Legislative Decree no. 4, 1987.

¹³Ratified by Brazil on 28 January 1986.

¹⁴Promulgated by Decree no. 875, 19 July de 1993.

¹⁵Promulgated by Decree no. 2.870, 10 December 1998.

¹⁶Promulgated by Decree no. 2.519, 16 March 1998.

¹⁷UNCLOS was promulgated in Brazil by Decree no. 99.165/1990.

Commission for Marine Resources (CIRM),¹⁸ subjecting scientific research on the claimed outer continental shelf to previous authorization by the coastal state, with international obligations voluntarily seized by Brazil. Similarly, it is the case to assess the extent of Brazil's jurisdiction on the continental shelf to pursue environmental crimes, namely those related to oil spills.¹⁹

This investigation consists of an *empirical axis* of the book, in which the “Brazilian Blue Amazon” will be scrutinized. After a careful analysis of that concept and its objectives, the work will determine whether the Brazilian state has adopted laws and regulations relating to the sustainable exploitation of the continental shelf, and whether those statutes lie in harmony with international environmental and oceanic provisions. Moreover, an analysis of Brazil's legal and institutional capabilities to comply with environmental obligations plays a central role in this work—goal achieved via resort to interviewing techniques conducted during a field research in Brasília, in November 2016. Finally, is there a principled management of the seabed currently in place in for the Brazilian Blue Amazon, or is there a need for legal and institutional improvement?

This chapter examines the domestic marine environmental governance architecture in place for the management of the Brazilian Blue Amazon, in particular Brazil's continental shelf. For that, it tackles the definition, objectives, geopolitical implications and legal status of the Brazilian Blue Amazon; then, it offers a view on the Brazilian efforts to delineate its outer continental shelf. In so doing, it is expected that the bases for the examination of the legal framework applicable to the marine environment of the continental shelf be adequately laid.

9.1 Marine Environmental Governance in Brazil: Policies and Institutions

A legal study on the environmental facet of the Brazilian Blue Amazon encompasses the marine environmental *governance structure* and *regulatory framework* regarding continental shelf activities. Broadly, the expression “governance” relates to the norms and agencies that provide standards of acceptable public behavior in the international system,²⁰ and encompasses the participation of all stakeholders involved in the activity to be governed. Building on that concept, it could be said

¹⁸The precise content of CIRM Resolution 003/2010, as well as its polemics, are discussed in Chap. 10.

¹⁹The next chapter will assess the Brazilian environmental jurisdiction, following the domestic confusion between Brazilian courts as to which instance had competence to entertain the criminal prosecution of Chevron operators that participated in an oil spill off the Rio de Janeiro coast in 2014.

²⁰See generally Nye and Donaghue (2000), introduction.

that marine environmental governance deals with the policies, institutions and stakeholders that actively participate in governing activities linked to the ocean. Those activities may include management, conservation, protection, exploration, research, exploitation etc. In this sense, “governance” is associated with policy-making and planning, as well as with law-making and law-enforcement of marine environmental norms.

Thus, a study on the domestic legal framework for the marine environment of the continental shelf could not start without first the analysis of the status of marine environmental policies in Brazil, documents which set out the most basic norms for marine environmental protection. The study of Brazilian policies, institutions and actors managing maritime regions should pave the way for the discussion on the consistency of the Brazilian legal framework with international rules, as well as the adequateness (and completeness) of that body of national laws to manage the continental shelf, its environment and resources in a sustainable manner.

To start with, some facts on the Brazilian maritime spaces are due, despite the risk of having the reader bored. The Brazilian coastline is exceptionally long, stretching out for over 7491 km along the South Atlantic Ocean.²¹ If the deeply indented features of that coast are considered, it then extends to more than 9000 km long, washing no less than 17 (out 27) Brazilian states.²² It is a convex coast, without maritime boundary delimitation disputes with neighboring countries [Uruguay and France], neither adjacent nor opposing. Overall, the country enjoys approximately 3.5 million km² of maritime spaces within national jurisdiction, numbers which, together with Brazil’s geographic position, grant the country an important political and strategic status in the South Atlantic region, if one can speak of the South Atlantic as a “region”.²³

The maritime spaces under national jurisdiction are given immense economic, geopolitical, scientific and environmental relevance. Maritime trade is responsible for over 90% of the Brazilian commercial balance and the ocean represents hope for oil and gas self-sufficiency, as well as socioeconomic development.²⁴ Offshore

²¹CIA, The World Fact Book, entry *Coastlines*.

²²See generally Short and Klein (2016).

²³The adoption of a *functional* definition of ‘South Atlantic Ocean’ takes into account that the geographical definition does not match with the geo-strategic comprehension of the region. Note that there are two possible uses of the expression “South Atlantic Ocean”, especially in international political studies: the geographic and the geo-strategic notion. The geographic one is provided by the IOC, International Oceanographic Organization, according to whom the coastal states bordering the South Atlantic Ocean are, in geographical descending order: Brazil, Uruguay and Argentina, from the American continent, and Gabon, Congo (Brazzaville), the Democratic Republic of Congo (Kinshasa), Angola, Namibia and South Africa, from the African continent. The geostrategic concept is based on geographical proximity, cultural affinities, socio-economic patterns, institutional characteristics and political comprehension. It equals the “central Atlantic”, between tropic of Cancer and the Ecuador Line, and the South Atlantic *strictu sensu*. For more, see Ribeiro (2017), p. 740.

²⁴From 2007, when petroleum and natural gas were discovered in the pre-salt layers, until 2010, a set of laws proposed by the Lula da Silva presidency imposed a stricter system of oil exploitation:

hydrocarbon sites corresponded to a staggering 96.7% of the entire oil production in Brazil in February 2020, while production in the pre-salt layer alone (deep-sea wells located at approximately 7000 m below the water surface) corresponded to 66.0% of the total.²⁵ For the abovementioned reasons, Brazil faces gigantic challenges of raising popular awareness to the country's dependency on the ocean, while simultaneously adopting domestic measures to foster the sustainable management of those maritime areas.

Given such dependency, it comes with little surprise that Brazil has been an active actor—together with other Latin American neighbors—in stimulating the development of the law of the sea. From a foreign policy perspective, Brazil is an original signatory to UNCLOS and has exercised a prominent role in the realm of oceans debates within the UN System. In addition, since 1967, the country has been permanently re-elected to the Council of the International Maritime Organization (IMO) and hosts the Regional Office of one of the most relevant programs of the International Oceanographic Organization (IOC), the Global Ocean Observing System (GOOS), in Rio de Janeiro. Brazil has also been consolidating its leadership role in the South Atlantic in recent years through cooperation initiatives on marine issues in various regional fora, such as the South Atlantic Zone of Peace and Cooperation (ZOPACAS),²⁶ the Community of Portuguese Speaking Countries (CPLP), and the India, Brazil and South Africa Dialogue Forum (IBSA). The country was the second state to forward to the CLCS a submission for the delineation of the outer limits of its continental shelf, as early as 2004. Regarding the Area, or the international seabed, Brazil implemented in 2009 the Program for the Prospection and Exploration of Mineral Resources of the International South Atlantic and Equatorial Area (PROAREA) and, after an official request to the ISA, has been granted a slot for prospecting and exploring mineral potentialities thereof.

Such an emphatic international projection of interest over the oceans has been accompanied by domestic ocean-related policies and legislation. Brazil has had interests in ocean policies and regulations during the twentieth century, when international discussions on the depletion of fish stocks, the endangerment of certain species of marine mammals, as well as on a fairer oceanic order were at the

the sharing regime, in which the coastal state is the final owner of the oil exploited by private contractors. Besides, a “social fund” was created by the Federal Act 12.351/2010, charged with collecting and directing royalties of exploitation in the pre-salt layer to health and education programs internally. Those rules were believed to instrumentalize the offshore oil sector towards domestic socioeconomic development.

²⁵Latest data published by the National Oil Agency (ANP), *Boletim Mensal da Produção de Petróleo e Gás Natural*, February 2020.

²⁶In the last years of the Dilma Rousseff government (2010–2016), the ZOPACAS initiative experienced a boost from regional partners, including Brazil. The 2013 Montevideo Declaration emphasizes the plans for enhanced cooperation in the South Atlantic region, namely on matters such as mapping and exploration of the seabed; maritime environment; air and maritime transportation and port security; maritime safety and security; coastal defense and peacekeeping operations; public security and combating transnational organized crime; and capacity-building in trade, culture, science and technology. See Duarte (2016), p. 99.

spotlight.²⁷ Yet, as this is no book on the history of Brazilian municipal law, it suffices to analyze Brazil’s *recent* domestic policy and institutional architecture ocean-wise. By recent, it is meant the official decisions and measures taken since the beginning of UNCLOS negotiations, a treaty that attempted at managing all recognized dimensions to the oceans (surface, airspace, depth, and subsoil), thus setting a paradigmatic landmark in the history of the law of the sea.

One should keep in mind that the formulation of ocean public policies is a rather recent phenomenon, as witnessed by the practice of states.²⁸ In other words, domestic attention to the oceans is only a few decades old, as a result of the needs and self-interests of coastal states, but also of international pressure via diplomatic conferences and concerted calls from international organizations and NGOs for stricter environmental protective standards to certain activities. Hence, considerable analytical weight will be given to marine environmental governance in Brazil since the early 1970s, in order to draw a picture of the Brazilian policy and institutional panorama on the marine environment—a sort of “Brazilian Ocean Strategy”, similar to the strategies adopted by other coastal states, such as Portugal.²⁹ Brazil’s official policies regarding the marine environment can be traced back to 1973, when the Special Secretariat for the Environment was established under the auspices of the Ministry for Internal Affairs,³⁰ as a direct consequence of the 1972 Stockholm Declaration and the already mentioned “*prise de conscience environnementale*” in motion since the late 1960s. The combined work of the Secretariat and other organs charged with the management of the oceans has produced a series of governmental policies, plans and specific actions.

Public policies are usually the subject-matter of investigations in the fields of political science, economics and public administration. In short, a public policy emerges from concrete societal demands, or from the perception of a problem to be solved by the governmental highest circles. The government then translates its actions into plans and programs, which are in turn expected to produce enhancements for the citizens’ lives.³¹ These results should be subsequently measured and evaluated, so that the system can be permanently fed back and improved.³² In practically every definition of “public policy”, the elements “government”, “plan”, “program”, “actions”, “choices”, “results” and “citizens” are to be found.³³

²⁷It was the case of the (failed) 1930 Hague Conference on the Territorial Sea, for the purpose of determining an enlarged length for territorial waters, or the 1946 International Convention for the Regulation of Whaling, to name but two examples of international discussions on the governance of the seas.

²⁸Franckx (2009), p. 9.

²⁹See Ministério da Defesa Nacional, *Estratégia Nacional Para o Mar*, Portugal, 2006.

³⁰The Secretariat of the Commission was created by Decree no. 73.030/1973.

³¹Souza (2006), p. 24.

³²The phases of “public policy cycle” are: identification of the problem, agenda setting, formulation, implementation, and policy evaluation. For more, see Serafim and Dias (2012), p. 128.

³³Souza (2006), p. 29.

Setting out the political agenda consists of picking the societal problems to be tackled, a practice embedded in tension between political actors, social networks, pressure groups and their respective power to influence the selection of those problems. In Brazil, after consultations with civil society groups at large and political articulations within the Parliament, public policies are enacted by a national law. Socially shared values and strategic governmental interests inform public policies, which are usually specified into more concrete “plans” or “programs”, each accommodating detailed measures to be taken by public authorities, in order to achieve specific objectives. For that reason, broader policies related to the marine environment are analyzed first, to then examine the concrete plans and actions adopted to implement the terms of the wider policies. Finally, this part scrutinizes the main institutional actors which participate both in setting the marine environmental agenda and in enforcing the policies, plans and actions on that regard.

When it comes to managing the marine environment, the Brazilian domestic network of policies is not particularly straightforward. To the contrary, the country has crafted a complex network of different governmental policies, plans, programs, and actions connected to different activities, maritime zones, and objectives. Despite such a complexity, the individual elements of that network can be said to complement themselves and to cover, in a fairly decent manner, the most relevant aspects of marine environmental governance.³⁴ Three chief national policies inform the management—in the sense of conservation and exploitation—of the Brazilian seas and marine resources: the 1994 National Maritime Policy, the 1981 National Environmental Policy, and the 1980 National Policy for Marine Resources. Note that the policies are not listed in a chronological order, but on an order of increasing administrative relevance for the purpose of ocean governance. Those three documents are at the origin of pluriannual plans of action and programs, the ensemble of which conforming what could be labelled a “Brazilian ocean strategy”.

9.1.1 National Marine Environmental Policies at the Federal Level

The *1994 National Maritime Policy* (PMN) followed UNCLOS’ footprint, which had just entered into force, and included key objectives into a strategy aimed at the integrated management of Brazilian maritime areas and activities.³⁵ For the purposes

³⁴One possible parameter for such “relevancy” are the annual reports drafted by UN DOALOS, in which debates on up-to-date marine issues are brought to the forefront of appreciation by the international community. The last report dates from September 2019 (A/79/250) and handles issues related to the human dimension of oceans (migration by sea and labor at sea), whereas the 2018 Report dealt closely with underwater noise and its implications to marine life. The ultimate goal being that of implementing Sustainable Development Goal 14 of the 2030 Agenda for Sustainable Development and its 10 targets.

³⁵Instituted by Decree no. 1.265/1994.

of the Policy, “maritime activities” are defined as those related not only to the sea, but also to navigable rivers, lakes and lagoons—granting the policy a broader scope than the documents which exclusively govern marine resources. The PMN is the highest-ranking national policy for maritime activities, one that should be taken into account by other national policies, plans and programs—sectorial and interministerial policies and measures shall respect the terms of the PMN.

The Policy is underpinned by the general objective to inform the development of maritime activities in Brazil in an integrated and harmonious way, aiming at the effective, rational and optimal utilization of the sea and internal waterways, in accordance with national interests. Complementing that major goal, the specific objectives include: the development of a national maritime mentality; the research, exploration and rational exploitation of living resources—in particular fisheries—and non-living resources of the bed and subsoil of the sea, rivers, lagoons and navigable lakes; finally, the *protection of the environment* in areas where maritime activities take place.³⁶

In order to implement such objectives, the PMN lists concrete actions, which were grouped in seven different axes, such as naval construction, security, maritime research and development, and others. Relevant issues to the PMN are Brazil’s commitment to international rules, the quality of port services in the country, incentives to cabotage navigation, to shipbuilding, to research and development of national maritime technology, professional training to maritime activities, the levels of safety of navigation and maritime traffic, among others.³⁷

One of the strategic axes governed by the PMN is “marine resources” (*recursos do mar*),³⁸ which deals mainly with growing Brazilian nationals’ participation in marine fisheries, as well as with increasing Brazilian exploration of non-living resources of the Area and the sustainable exploitation of marine resources in areas under Brazilian jurisdiction. “Action 2” on marine resources relates directly to the management of the continental shelf, by setting out the goal to *intensify activities of prospecting, exploring and exploiting mineral resources of the Brazilian continental shelf*, especially those which may contribute to minimizing the net import of strategic minerals. Overall, the PMN worries little with the conservation of marine environment and aims clearly at governing maritime activities which may foster socioeconomic development. Not much is elaborated on marine environmental concerns, such as measures to protect oceanic ecosystems, prevent marine pollution or else—just the general and cliché-wise employment of key terms, such as “sustainable exploitation”.

³⁶National Maritime Policy, Chapter 2, available online.

³⁷The main participants of the PMN are the Ministries of the Navy (nowadays, Ministry of Defense), Foreign Affairs, Finance, Transportation, Agriculture, Education, Labor, Industry and Commerce, Mining and Energy, Regional Integration, Justice, Science and Technology and Environment, and the Secretariats of Planning, Strategic Affairs and Federal Administration.

³⁸National Maritime Policy, Introduction, at 3.

Concerns on the marine environment were the *ratione materiae* of the 1981 *National Policy for the Environment* (PNMA),³⁹ which aims to preserve, improve and recover the environmental quality conducive to life, in accordance with the principle of rationalization of land, subsoil, water and air use. In the Policy's text, ports and marinas, as well as the transportation and commercialization of dangerous cargoes, oil, gas and derivatives are classified as activities with a *high* risk of environmental pollution—thus demanding particular attention from all involved stakeholders.⁴⁰ Even though the Policy did not explicitly prescribe principles or practices to the oceans, but solely to the environmental in general (a broader concept which undoubtedly comprises the seas), it represented an important, albeit not the first, step in the arduous path towards environmentally sound and sustainable activities. Importantly, the Environmental Policy created National Council for the Environment (CONAMA), a proactive governmental agency that regulates the uses of the oceans.

The 1981 PNMA certainly is pertinent to the management and conservation of the marine environment. Yet, the most relevant document for that end is a national policy approved before both the Maritime and the Environmental Policy. As early as 1980, a year before the adoption of the Environmental Policy, Brazil approved its first *National Policy for Marine Resources* (PNRM), which underwent a thorough update in 2005 under the Lula da Silva presidency, in order to face the considerable modifications witnessed by the international community since the early 1980s.⁴¹ The “new” policy for marine resources reiterated several principles, key pillars and objectives of its predecessor, thus aiming at governing the development of maritime activities focused on the effective use, exploration and exploitation of living, mineral and energy resources of the Brazilian maritime spaces, in a *rational and sustainable* way, in accordance with national interests and towards the socioeconomic development of the country.⁴²

The 2005 PNRM is fundamentally informed by the 1994 PMN and the 1981 PNMA, although it consists itself of an umbrella framework with principles and objectives that influence the preparation of further government plans, programs and actions—keep the “complex web” of policies description in mind. Among these *principles*, some have a direct connection to marine environmental governance, namely: resort to the precautionary principle in the exploitation of marine resources; the protection and conservation of biodiversity and genetic heritage in marine areas under national jurisdiction; and, lastly, the respect for the internationally accepted

³⁹Act no. 6.938/1981.

⁴⁰Annex VIII to Act 6.938/81, incorporated by Act no. 10,165, 27 December 2000, on potentially polluting activities.

⁴¹Taking into account the historical moment when this policy entered into force, the 1980s, it can be considered a valuable mechanism for the protection of the Brazilian coastal area. “major advance in terms of standardization of multiple uses of the coastal and marine zone of Brazil”. See Marroni (2014), p. 165.

⁴²Art. 2, on the objectives of the PNRM, Decree no. 5.377/2005.

commitments by the Brazilian state.⁴³ The Marine Resources Policy must be compatible with other maritime and environmental policies and is entrusted with creating and coordinating the following Plans: quinquennial *Sectorial Plans for Marine Resources* (PSRM); the National Coastal Management Plan (PNGC),⁴⁴ and the Brazilian Continental Shelf Survey Plan (LEPLAC)—as examined below.

The quinquennial *Sectorial Plans for Marine Resources* are one of the outcomes of the Marine Resources Policy, whose objectives are to assess the economic, scientific and environmental potential of the seas, as well as to monitor the living and oceanographic phenomena and climate elements of marine areas under jurisdiction.⁴⁵ Each Sectorial Plan is a long-term document, profoundly informed by the three strategic objectives of the that Policy, namely: training of human resources; research development, marine science and technology; and encouraging the exploitation and sustainable use of marine resources. In order to fulfill such objectives, the PSRMs unfold into a variety of specific *actions*, some of which have fulfilled their objectives and did not make it to the following Plan; some which are still ongoing and, therefore, continuously make it into the next Plan. Each subsequent plan engages in continuing the efforts of previous plans, deepening actions which may be deemed more urgent, and perfecting implementation techniques and methodologies.⁴⁶

From an operational perspective, each Sectorial Plan is coordinated by the Interministerial Commission on Marine Resources and executed by a Committee composed, among others, of the Ministry for the Environment and the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA). Ultimately, the Plans have been inspired by the goals to manage and use marine resources in a sustainable fashion, as well as guaranteeing the fair and equitable distribution of the benefits derived from their use at the national level. The first PSRM was adopted in 1982, while the current one—the ninth—is valid from 2016 until 2019.

The Plans’ early editions focused on generating knowledge on the marine environment, so that a sustainable use of marine riches could be possible. In line with the national policy which informs the plans’ actions and measures, the initial PSRMs

⁴³Art. 4, PNRM.

⁴⁴In 1988, Brazil drafted and approved the National Coastal Management Plan (PNGC), Act no. 7.661/1988, a direct outcome of the National Policy for Marine Resources and the National Environmental Policy. Due to the absence of references within the Plan to the continental shelf, core of this study, it does not deserve a detailed analysis. For more information of the concrete measures and actions included in the Plan, see Maria Luiza Machado Granziera and et al., *Os Desafios Ambientais Da Zona Costeira* (Essential Idea, 2014).

⁴⁵List of quinquennial Sectorial Plans for Marine Resources thus far: I PSRM (1982–1985); II PSRM (1986–1990); III PSRM (1990–1994); IV PSRM (1994–1998); V PSRM (1999–2003); VI (2005–2008); VII (2008–2011); VIII (2012–2015); IX (2016–2019). As of April 2020, there had been no news on the adoption of PSRM X.

⁴⁶In public policy studies, this feature would be described as an “*incremental process*”, in which plans and actions are cumulative, usually not departing from scratch. See Souza (2006), p. 29.

were inspired by the search for an *integrated management* of coastal and marine ecosystems, as well as the need for amplified participation of different stakeholders. The rationale behind such an integration was that, without the incorporation of all interested parties, effectiveness will be harder to reach. In addition to the integrated management and the participatory drafting and execution of the plans' actions, they are also inspired by a precautionary approach to the exploration and exploitation of the oceans.⁴⁷

The IX PSRM built on the previous ones and maintains the integrated and participatory management model between Ministries, development agencies, academic and scientific communities and the private sector, who eventually collaborated to the Plan's elaboration and shall cooperate in the execution of joint, comprehensive actions. Among the topics of interest to the IX Sectorial Plan, "sustainability" occupied a privileged spot in practically every paragraph, alongside marine conservation efforts. Among the Plan's objectives, one can quickly spot (i) the monitoring of living marine resources and their *conservation, sustainable* exploration and exploitation; (ii) the exploration of coastal and marine biodiversity, with a view to its *conservation*; (iii) the research of non-living resources and their economic potential, both in areas within and beyond national jurisdiction; (iv) the environmental research and monitoring of the deep sea.⁴⁸ Overall, marine environment-related concerns of the current and previous Plans have focused on ensuring the *quality* of the marine environment; reducing the vulnerability and risks of extreme events and climate change; expanding and disseminating knowledge on the global role of oceans; developing and applying national technologies for the *sustainable* use of marine resources; and promoting innovation in products, services and processes related to the sustainable use of marine resources.⁴⁹

Of the several *actions* implemented by each Sectorial Plan for Marine Resources, only those concerning the marine environment of the continental shelf are of interest to this study. It is the case to mention the 1994 REVIZEE, 1997 REMPLAC, and the 2005 REVIMAR.

The 1994 *Program for the Assessment of the Sustainable Potential of EEZ Living Resources* (REVIZEE) resulted from the IV PSRM (1994–1998) and was implemented by the Brazilian Environmental Institute, IBAMA. The Program addressed the fisheries sector and aimed at identifying the living resources of the EEZ and the environmental conditions of their occurrence. Subsequently, authorities

⁴⁷The VIII Sectorial Plan, for instance, focused on the relationship between "Sea, Coastal Zone and Antarctica", thus embracing concerns with natural resources of the coastal zone—not directly the topic of this work.

⁴⁸IX PSRM, CIRM Resolution 191/4, 2016, 5.

⁴⁹Pursuant to Decree no. 6.678/2008, which instituted the VII PSRM, valid from 2008 to 2011. Concerning the continental shelf, two objectives called attention: (f) to investigate the mineral potential of the continental shelf and the international seabed, also aiming at acquiring the right of exploitation and mineral exploitation in the Area; and (k) to promote studies and suggest the updating of Brazilian legislation with a view to its application in all aspects concerning the resources of the sea.

set out to determine the biomass of such resources and the pertinent *sustainable yield*, pursuant to UNCLOS Art. 60. Noteworthy is that the results of the REVIZEE Program are, however, not limited to warnings about the availability and status quo of key living resources of the country’s EEZ. Knowledge on marine biodiversity, including in deep waters—demersal and benthic species, witnessed a great expansion, as scientific researches on the ecosystems of the continental slope up to 2000 m deep provided information and empirical subsidies to the management of fisheries off the Brazilian shore.⁵⁰ Among the main findings of the Program was that coastal and marine areas contain numerous species endemic to Brazilian waters, some of which severely threatened with depletion.⁵¹

Alongside the REVIZEE, other actions stemmed from later sectorial plans for marine resources. Yet, unlike the REVIZEE, the following actions and programs are still on-going. It is the case of the *1997 Program for the Assessment of the Mineral Potential of the Brazilian Legal Continental Shelf* (REMLAC), designed by the Interministerial Commission for Marine Resources via Resolution no. 004/1997. The Program’s general objective is to evaluate the mineral potential of the Brazilian continental shelf, while simultaneously (i) depicting the physical environment of that continental shelf; (ii) identifying and detailing areas of relevant mineral potential; (iii) collecting basic geological information for the management and integrated management of the shelf and the adjacent coastal zone; (iv) implementing a georeferenced digital database for use by the scientific community, government agencies and Brazilian companies;⁵² (v) proposing a methodology and standards for the execution of marine scientific research on the shelf; and, finally, (vi) fostering research that aims advancing and innovating techniques and equipment employed in the exploitation of continental shelf mineral resources.⁵³

The REMLAC’s main purpose is to elaborate a geological and geophysical model for the evaluation of mineral resources in the continental shelf, so as to assess the mineral potential of at least 8% of the entirety of that area.⁵⁴ It is ongoing, albeit on a rather slow rhythm, what suggests a lack of priority by the CIRM and national stakeholders to surveying the mineral potential of the Brazilian shelf. The time gap between the end of the VII and the approval of the IX Plan, as well as the extremely

⁵⁰The REVIZEE produced several reports on the status of fisheries in the Brazilian EEZ, all of which unfortunately only in Portuguese. For more, visit: <https://www.marinha.mil.br/secirm/revizee>. Accessed 11 April 2020.

⁵¹The Final Executive Report of the REVIZEE Program, delivered in 2006, identified at least ten endemic species within the Brazilian EEZ that risk depletion. The species belong to rays, sharks, sawfishes and others. For a complete list of the endangered species in Portuguese and Latin, see MMA (2006), p. 64.

⁵²A result of the such objective was the crafting of an online Geographic Atlas of the Brazilian Coastal and Marine Regions, by the Brazilian Institute of Geography and Statistics. Available at: <http://www.atlasmar.ibge.gov.br/>. Accessed 11 April 2020.

⁵³For more on the REMLAC, see Longo (2014), p. 97.

⁵⁴Those objectives can be accessed at the CIRM’s website, at: <https://www.marinha.mil.br/secirm/remplac>. Accessed 11 April 2020.

low speed in which concrete measures were met to implement specific objectives of the Program indicate it lags behind in the priority scale of the Brazilian authorities. In other words, it is unlikely that mineral exploitation of deep-sea areas under national jurisdiction will start anytime soon, what does not speak for the exploitation of hydrocarbons. The latter is likely to happen in the near future, as the key Brazilian oil production company has shown interest in carrying on activities in slots farther away from offshore.

The IX PSRM (2016–2019) reiterates the REMPLAC project, but this time on a different methodology. Where the surveying of the continental shelf potential has traditionally been rather generic/ample, future research shall be detailed and focus on specific minerals. According to the Plan, the REMPLAC shall concentrate on detailing specific potential mining sites along the Brazilian continental shelf, limiting itself to surveying specific minerals, such as aggregates employed in civil construction and materials used as soil correctives, such as marine bioclasts, necessary for the development of agriculture.⁵⁵ The “renewed” REMPLAC also contains the identification and evaluation of the biotechnological potential associated with the mineral resources of the continental shelf. The economic logics behind the REMPLAC stands out, with little being said and done with respect to the marine environment of the continental shelf.

Of the actions designed within the PSRMs, the one most directly governing the management of the Brazilian marine environment is the *2005 Action for the Assessment, Monitoring and Conservation of Marine Biodiversity* (REVIMAR), coordinated by the Ministry for the Environment. Its goals are to evaluate, monitor and promote the conservation of marine biodiversity, with an *ecosystem approach*. Broadly, the REVIMAR sets out to ensure the monitoring and conservation of existing ecosystems in coastal and marine areas. Based on the conclusions and scientific data obtained by the REVIZEE Program, the REVIMAR Action aims to establish scientific bases and integrated actions capable of subsidizing measures towards the shared management of the Brazilian marine biodiversity, as well as the conservation and sustainable use of living resources under national jurisdiction.

The specific goals of the REVIMAR regard directly the management of the Brazilian continental shelf: to continuously evaluate five protected areas of reef ecosystems offshore—no reports available online; to continuously evaluate the conservation status of marine species, aiming to subsidize conservation policies including updating the lists of endangered species; to implement at least 70% of the actions of the Actions and Programs of previous PSRMs regarding threatened ecosystems—no reports available online; to develop and implement recovery plans for at least 75% of endangered marine species—no reports available online; and,

⁵⁵IX PSRM (2016) 21. Due to the above-mentioned methodological “adaptation”, the index of progress associated to the individual actions of the REMPLAC has dropped to zero. It is as if a new phase of the Program was about to start, one which expects to raise detailed material on the mineral potential of only three specific portions of the Brazilian continental shelf.

finally, to increase the total number of marine protected areas to 4% of the territorial sea and EEZ (3.5 million km²)—this is the only goal which was objectively fulfilled.

Apart from public policies and strategies for the maritime spaces under national jurisdiction, Brazil has also devised the *2009 Program for the Prospection and Exploration of Mineral Resources of the International South Atlantic and Equatorial Area* (PROAREA).⁵⁶ This action resulted from the VII PSRM, with the objectives of expanding Brazilian strategic presence in the South Atlantic and Equatorial Oceans (considered by the Navy as zones of natural Brazilian influence); collecting data to support future Brazilian requests for mineral exploration before the ISA; obtaining technical, economic and environmental information; preparing and qualifying human resources to implement activities in the Area. Given that the PROAREA does not relate to the Brazilian Blue Amazon, in that it focuses exclusively on the Area, it lays beyond the scope of this study.

9.1.2 Core Institutional Actors at the Federal Level

Charged with the implementation of the multiple actions and measures examined supra is an equally complex net of institutional actors. They participate in setting the agenda, debating approaches to the implementation of specific actions, and evaluating the overall compliance to the plans and programs’ objectives. Depending on the problem to be solved, they may be the legislature, government leaders, technicians from ministries and various public administration bodies, political parties, non-governmental organizations, interest groups, unions, academia, others.

The first and crucial governmental body tasked with the coordination of the Actions referred to supra is the *Interministerial Commission for Marine Resources* (CIRM). The Commission was created in 1974,⁵⁷ just a year after the creation of the Brazilian Secretariat for the Environment, as a result of the bureaucracy’s awareness of the importance of the marine environment in whichever national development strategies. The Commission’s main task is to coordinate the 2005 National Marine Resources Policy, as well to oversee the implementation of the National Coastal Management Plan and other programs and actions stemming from the quinquennial PSRMs. As the name itself suggests, the Commission is composed of representatives of several ministries, but coordinated by the Navy Commander—also known as “Maritime Authority”.⁵⁸ In its almost 40 years of existence, the CIRM presents a

⁵⁶For more on the Program, its guidelines and objectives, see *Executive Summary of the PROAREA Program* (Brasília: Comissão Interministerial para os Recursos do Mar, September 2009), 34.

⁵⁷The CIRM was instituted by Decree no. 74.557/1974 and regulated by Decree no. 3.939/2001.

⁵⁸In its composition, the CIRM has representatives from: Civil Cabinet of the Presidency; Defense Ministry; Ministry of Foreign Affairs; Ministry of Transport; Ministry of Agriculture, Livestock and Supply; Ministry of Education; Ministry of Health; Ministry of Development, Industry and Foreign Trade; Ministry of Mines and Energy; Ministry of Planning, Budget and Management; Ministry of Science, Technology and Innovation; Ministry for the Environment; Ministry for

truly impressive service sheet, seeking to fill the institutional vacuum in the Brazilian maritime space—an ambition it achieves to a large extent.⁵⁹

Another key institutional actor in the management of the Brazilian maritime spaces is the *Brazilian Navy*, who holds a tradition not only of defending, but also *managing* the areas under Brazilian national jurisdiction.⁶⁰ The first Minister of the Navy and Overseas Domains was appointed in 1808, upon arrival of the Portuguese crown in Brazil, escaping the Napoleonic conquer of the Iberian Peninsula that same year. Since those times, the Navy has had its headquarters in Rio de Janeiro, where the core of the Brazilian fleet is located.

In its vision of the future, the Brazilian Navy strives to be a modern and balanced force, equipped with adequate means for the political-strategic insertion of Brazil in the international scenario. Thus, the marine force should be permanently ready to act both offshore and within internal waters, singularly or jointly, in order to fulfill its constitutional purposes.⁶¹ Interestingly, fundamental tensions arise within the Navy with respect to the balance between sovereignty considerations and environment conservation goals.⁶² Despite the Navy's awareness of its broader institutional role of not only shielding Brazilian waters and mainland, but also caring for the conservation of the marine environment, the latter is not the Navy's primary role, nor concern. Enforcement of marine environment-related regulations falls under the responsibilities of the Brazilian Environmental Institute, IBAMA, a situation which could potentially trigger institutional conflicts between both, due to the overlap of tasks, and makes one wonder whether a shared prominence between these two institutions exists.

The *Brazilian Institute for the Environment and Renewable Natural Resources* (IBAMA) is a federal entity endowed with legal personality, administrative and financial autonomy and linked to the Ministry for the Environment.⁶³ The Institute has the power of environmental police within Brazil's jurisdiction and is charged with (i) carrying out actions of the national environmental policies related to environmental licensing, environmental quality control, authorization of the use of natural resources and *environmental monitoring and control*, observing the guidelines issued by the Ministry for the Environment; and (ii) conducting supplementary actions of the competence of the Union, in accordance with the domestic environmental legislation.⁶⁴ Such responsibilities are aimed at several strategical objectives,

Sports; Ministry of Tourism; Ministry of National Integration; Ministry of Fisheries and Aquaculture; and, finally, the Secretariat of Ports of the Presidency of the Republic.

⁵⁹For more on the services and achievements of the CIRM, see Soares (2014), p. 302.

⁶⁰That is the essence of the Brazilian Navy's official slogan, which goes: "protecting our riches; caring for our people".

⁶¹The announced "vision" and "mission" of the Brazilian Navy is to be consulted online, at: <https://www.marinha.mil.br/content/missao-e-visao-de-futuro-da-marinha>. Accessed 11 April 2020.

⁶²For more info on this tension, refer to Chap. 6, on the false dichotomy between marine security and marine conservation initiatives.

⁶³IBAMA was created by the Act no. 7.735/1989.

⁶⁴Art. 5, Act no. 7.735/1989.

of which two are particularly eye-catching: promoting and improving laws and regulations on environmental matters, as well as providing environmental data and information.

Similar to IBAMA, another Institute shares the power of environmental police within Brazilian national jurisdiction, yet solely with regard to protected areas. The *Chico Mendes Institute for Biodiversity Conservation* (ICMBio)⁶⁵ is a special federal autarchy linked to the Ministry for the Environment responsible for effecting management and conservation actions within the National System of Conservation Units, as well as supervising and monitoring protected areas designed by the Union. It also falls upon it to promote and execute programs aimed at researching and conserving biodiversity, both within terrestrial and marine protected areas.

Both IBAMA and ICMBio consist of *enforcement* agencies linked to the *Ministry for the Environment* (MMA), an organ which displays repeated concern with the Brazilian coast side, but little attention to the rest of the marine environment. That conclusion is possible from analysis of the Ministry’s official reports—revised for the purposes of this work—and the structure of the Ministry’s website. After exploring the website for hours, should one look for information on “coastal zone and oceans”, under the macro-topic of “water” in that website, the only available info relates to “coastal management”—that is as much details on oceans as one will find on the official website.⁶⁶

Regarding coastal management, the Ministry develops a couple of projects on the conservation of marine biodiversity. Firstly, the Project *TerraMar* monitors and manages two MPAs (*Costa dos Corais* and *Abrolhos*), totaling 400 ha. That project aims at enforcing conservation measures in the two above-mentioned biodiversity sanctuaries and is funded by the German Ministry for the Environment (BMUB) and the German Society for International Cooperation (GIZ). Secondly, the Project *GEF-Mar* seeks to support the establishment, expansion and implementation of a globally significant, representative and effective System of Marine and Coastal Protected Areas in Brazil, apart from identifying tools for their financial continuity, in order to reduce the loss of coastal biodiversity. This system integrates different categories of protected areas and other area-based conservation measures under different management strategies. It is a Federal project, created and implemented in partnership with the private sector and civil society, aimed at increasing the amount of MPAs in Brazilian waters, as well as designing and implementing at least two financial

⁶⁵ICMBio was created by the Act no. 11.516/2007.

⁶⁶Information is also available on yet another Program of the MMA, namely the National Program for the Conservation of the Brazilian Coast Line (PROCOSTA), launched in 2018 by the Decree 76/2018. The Program should ensure the monitoring, management and conservation of the country’s coastal region in order to minimize damages and preserve the environmental characteristics and services provided by that area. The initiative also integrates coastal management into actions to mitigate and adapt to climate change.

mechanisms capable of contributing to the long-term sustainability of coastal and marine protected areas.⁶⁷

While the relevance of such projects should never be underestimated, by virtue of the concentrated conservation efforts towards those fragile MPAs, it seems also reasonable to disapprove the Ministry for not having broader programs in place, nor concerns with the conservation of the Brazilian marine environment from threats such as pollution from continental shelf activities, dumping of waste and other sorts of substances on the seafloor, among others. For instance, the Ministry adopted a national strategy for monitoring Brazilian biomes in 2007, and, worryingly, the document does *not* mention the marine biome. Only by late 2018 has a bill for a national policy for the conservation of the marine biome been proposed before the Brazilian National Parliament—the PNCMAR, mentioned elsewhere.

To close the cycle of environmental agencies, one must mention the *National Council for the Environment* (CONAMA), chaired by the Ministry of Environment. CONAMA has representatives from ministries, state governments and the Federal District, municipalities, NGOs and industry, commerce and agriculture class entities.

9.1.3 *The Struggle for Coherence in Domestic Ocean Policy-Making*

In light of the plethora of different (although complementing) values, policies, programs, plans, and actions, several challenges emerge to the Brazilian authorities. One related to the general *coherence* of the national ocean management system; another one connected with the *effectiveness* of such policies.

Different views can be expressed on the quest for coherence. For Erik Franckx, for instance, striving for coherence means reducing *fragmentation* in policy-making, understood here as the tendency of having different sectors and stakeholders overlap in domestic ocean decision-making spheres. For that author, coherence would correspond to “harmonization” between national ocean policies, so that efforts are not wasted in different directions, when not plainly annulated by conflicting measures. For that, local authorities would be demanded to achieve an “improved operational process in order to balance sectoral interests and coordinate action and goals in accordance with sustainability principles”.⁶⁸

Even if one would share the underlying concern with coherence expressed by Franckx, the association built by that author between coherence and *unity*—or the fight against fragmentation—stems from a rather idealistic conception. A quick glimpse at the policies, programs, actions and institutions participating in the Brazilian ocean governance reveals the complexity of such a process in the historic

⁶⁷Information available online at the MMA website: <http://www.mma.gov.br/areas-protegidas/programas-e-projetos/projeto-gef-mar>. Accessed 11 April 2020.

⁶⁸Franckx (2009), p. 14.

era that scientists have agreed to refer to as the “Anthropocene”.⁶⁹ The intricacy of regulating and disciplining the management of the ocean emanates from the plurality of activities involved (such as navigating, fishing, mining, researching, etc.), as well as the emergence of new stakeholders in the past decades (environmental groups and an increased amount of people negatively impacted by ocean uses), all that within a context of economic and technological asymmetries between countries worldwide.⁷⁰

The complexity inherent to drawing and implementing ocean policies under those circumstances could not logically result in simple, plain and straightforward documents. In this sense, fragmentation of marine environmental governance seems to be an inevitable reality both internationally and domestically, as the work by Boyes and Elliott depicts. Upon examining the international, European and English legislation safeguarding the marine environment, the authors have come up with a map that synthesizes the intricacy of policies, rules, programs and agencies that interact for that purpose—such a map (or the chaotic overlap of policies and rules that it portrays) was suggestively labelled “the ultimate *horrendogram*”.⁷¹ In this context, to strive for a centralized or unified marine governance edifice is not only utopic, but also undesirable, as decision-makers and stakeholders ought to embrace the ocean as a complex set of different regimes to be governed. The old-school “top-down approach” to ocean regulation has proven insufficient in the past and does not allow for the effective implementation of agreed goals.

To acknowledge that is not equivalent, by no means, to defending that domestic legal and policy frameworks be unnecessarily labyrinthine. A too complex ocean governance system is likely to lead to internal conflicts of formal competence, as well as to material contradiction, consequences which are to be avoided by every policy- and law-maker. As it does not mean that public authorities should not aim at harmonizing policies and plans for the marine environment. To the contrary, it means that expecting a handful of documents to regulate all uses of the oceans may not be consonant with reality. Admitting the inherent complicatedness of the process, due to the multiplicity of opposing interests at stake and the great variety of stakeholders, is a first step towards the drawing of effective strategies for the oceans.

In the Brazilian case, when confronted with the question whether the Brazilian “ocean strategy” is coherent, harmonic and uniform, the answer is: partially. For one, Brazil does not pay lip service to those requirements, simply by mentioning them at the beginning of each document containing a policy, plan or program.⁷² The country concretely attempts at intertwining key strategic priorities into the policies mentioned supra (PMN, PNMA, PNRM), while sharing general and specific objectives, as analyzed above. In this sense, the key topics and objectives of the National Policy on Marine Resources informs the Programs and Plans designed after it, as well as the

⁶⁹Vidas et al. (2014), p. 23.

⁷⁰Barros-Platau et al. (2015), p. 158.

⁷¹Boyes and Elliott (2014), p. 43.

⁷²Harmonization with other plans and policies is considered a “basic principle” by the Marine Resources Policy, Art. 4.

practical actions put in motion to fulfill specific objectives, to some degree of success thus far, as in the case of the REVIZEE. Furthermore, a multi-stakeholder organization (CIRM) coordinates the policies and supervises several of those Plans and Actions, while communicating with other agencies that are charged with implementing parallel Actions, as the Ministry for the Environment and the task of assessing the biodiversity and genetic potential of Brazilian waters (REVIMAR).

For that reason, credence should be given to Ana Paula Barros-Plataiu in her claim that national ocean planning needs to be discussed *in light of fragmentation*, taking into account the porosity and circulation of international, regional, national and local standards, apart from involving local actors into the process, i.e. academic researchers, fishing communities, and others affected by regulations. All that, despite the well-known financial and logistic difficulties of such a broad participation. That approach amounts to the so-called “integrated management” of maritime areas, a doctrine which seems to enjoy widespread acceptability within Brazilian academia, with growing literature on this topic being registered in Brazil.⁷³

Out of comparison—on a superficial tone, as this work is not intended to compare different legal realities as preconized by the field of international comparative law—the Portuguese “National Strategy for the Oceans” may strike at first sight as a cohesive and coherent document, limited to the essentials of ocean governance.⁷⁴ Yet, one should never forget that such strategy is inserted in a complex web of policy papers, plans and programs both at the national, regional and international levels—the notorious “horrendogram”. With that in mind, it is noteworthy that Portugal’s strategy embraces key environmental legal principles, such as the integrated management of ocean issues; the principle of sustainable development; the precautionary principle, namely with respect to risk management; and the ecosystem approach, as a methodology and framework for the integrated management of terrestrial and aquatic ecosystems and their resources, with a view to their conservation and sustainable use. But then again, one should not lose sight of the document’s essence: a programmatic and strategical declaration of intentions, which envisages whereto the country wishes to head in the future.

Three strategic cornerstones in the Portuguese strategy include ocean knowledge; marine spatial planning and regulation; and the promotion of national interests. Here, the Brazilian Marine Resources Policy is similar by focusing on the training of human resources in ocean sciences; the intensification of MSR and the sustainable exploitation of marine resources. Regarding the marine environment, the Portuguese strategy emphasizes the action to protect and recover marine ecosystems, establishing a national network of marine protected areas, and maintaining marine habitats in a favorable condition, apart from monitoring the overall health status of the Portuguese marine zones, in which it turns out to be rather more detailed than the Brazilian PNRM. The macro-objective sought after through the implementation of those core principles is rather straightforward: to turn the Portuguese seas into a

⁷³Barros-Plataiu et al. (2015), p. 162.

⁷⁴“National Strategy for the Oceans”, Portugal, note supra.

national project,⁷⁵ i.e. to implement action plans capable of mobilizing stakeholders around crucial questions pertaining to the management of Portuguese maritime spaces. Such a clear objective is not easily extractable from the Brazilian marine governance edifice—and this shows how a decentralized web of policies, plans and actions may blur essential goals. Brazil could certainly benefit from such a symbolism of raising the Brazilian seas to the status of a “national project”, instead of a destiny, some sort of fate and predestination.

Noteworthy is that, in the Portuguese strategy, little is discussed in terms of national defense and security, with but specific measures on the need to promote the national interest in matters of national defense, security and alertness, both domestically and in relation to the international sphere.⁷⁶ Even so, references to “security and national defense” are often accompanied by preoccupation with equipping the Portuguese ocean-related agencies to monitor the seas, prepare for natural hazards, and combat marine pollution, as in this section:

No national strategy for the sea can be effectively implemented without an efficient integrated *surveillance, security and national defense system* that has the means to enable effective and coordinated maritime surveillance, safeguarding against natural hazards and combating pollution.⁷⁷

Such a relative freedom from national defense considerations is, perhaps, due to the relative restraint or political clout of the national Navies in each context. In the Portuguese case, it is not farfetched to picture a Navy that avoids the spotlight and exercising pressure on other stakeholders when the issue is marine conservation policies. One of the consequences of such a balance between interested parties is a refreshed national strategy that focuses less on security and defense issues, being given ample maneuver room to regulate issues on innovation, technology, impulses to the blue economy, marine environmental conservation, and others, not necessarily subject to a militaristic viewpoint. Brazil, on the other side, has been criticized by literature for designing its national ocean policy from a stark military perspective.⁷⁸ This issue, on the role of Navies in shaping national ocean policies and legislation, would render another investigation of its own, and falls beyond the scope of this chapter.

On to the second challenge identified above, the difficulties of *implementing* the “integrated ocean management” plans should not be underestimated. Obstacles exist, which hinder the much-needed leap from academic awareness of the virtues of the

⁷⁵Ministério da Defesa Nacional, Portugal, 7.

⁷⁶*Id.* 13, 22, 23, 29. Interestingly, “safety” and “security” are represented by the same word in Portuguese: “segurança”. Hence, for the purposes of the analysis in the current item, concerns such as “safety of navigation” are disregarded in favor of “national defense and security” considerations, even though both relate, in Portuguese, to the same concern: “segurança”.

⁷⁷*Id.* 23. All that even though the National Strategy for the Oceans was published by the “Mission Structure for Maritime Affairs”, a body under the purview of the Ministry for National Defense.

⁷⁸According to Erik Franckx, Brazil’s military inputs in domestic ocean policies are not as stark as in Russia but do still inform plenty of the measures and goals therein. For more on this particular criticism, see Franckx (2009), p. 15.

integrated management approach, to the inclusion of integrated management measures in concrete domestic decision-making procedures. In Brazil, to date, the comprehensive package of laws and policies formally integrating all levels of government (regional, state and federal) has been met with incipient implementation. In a detailed study on the effectiveness of the Brazilian domestic marine environmental policies, Jablonski and Filet have found that the more incisive laws in relation to ocean and coastal management are in the form of resolutions and not of decrees or acts, thus hinting at the presumption of a weak system by those required to abide by the resolutions and recommendations.⁷⁹

Besides, the Brazilian ocean strategy has been criticized thus far for being excessively concentrated in the Executive branch of government, which does not facilitate the effective regulation of marine issues at the national level.⁸⁰ Besides, *insufficient dialogue* at the national level usually jeopardizes the selection of national interests which will make it to oceans policies—not interests picked in hermitically isolated offices in the Brazilian capital, located more than 1000 km away from the coast, by technicians with little contact to the populations affected by governmental measures. After all, “if one does not know where one is sailing, no wind is favorable”.

In addition to that, effectiveness of marine governance is questioned by the deficient flow of financial resources to ground-force agencies, so as to keep an integrated ocean policy functioning with decent results.⁸¹ Finally, the current institutional marine governance architecture tasked with implementing the national policies, programs, plans and actions is considered unfit for the job. Scholars have urged for immediate institutional reforms, in order to reduce number of leaderships that unnecessarily bureaucratize the entire process, as well as to update the tasks of certain institutions towards more dialogue and better coordination between authorities responsible for the ocean governance.

That panoramic insight onto the Brazilian marine environmental governance (its policies, plans, programs, actions and institutions/agencies) paves the way for a closer look at the Brazilian plan to delineate the outer limits of its continental shelf and how such a plan is deeply informed by the rather recent concept of “Brazilian Blue Amazon”, or the Brazilian maritime regions. An important part of this “Amazon” is composed of the seabed under national jurisdiction, and a considerable focus of the “rhetorics” of the Blue Amazon was directed at raising awareness to the plan

⁷⁹Jablonski and Filet (2008), p. 541.

⁸⁰Barros-Platau et al. (2015), p. 162.

⁸¹Just as an example of the underfunding of domestic enforcement agencies and the monitoring of protected areas, Brazil invests the least in Conservation Units (R\$ 4.43/ha) in a comparison with other biodiverse-rich countries. In the UNEP Report “Contribution of Brazilian Conservation Units to the National Economy”, carried out in 2011, investments per hectare were analyzed in the maintenance of protected area systems in: The United States, New Zealand, South Africa, Australia, Canada, Mexico, Costa Rica, Argentina and Brazil. Of those, Argentina, the second-worst ranked, displayed an investment almost five times bigger than that of Brazil in the maintenance of protected areas (R\$ 21.37/ha). See Medeiros et al. (2011), p. 10.

to delineate the outer continental shelf limits. Ultimately, it is the view adopted in this work that to study the Brazilian environmental regulatory maneuver on the continental shelf is to study the broader policy and legislative stances adopted by Brazilian authorities with respect to the regulation of the maritime spaces under national jurisdiction—i.e. the Blue Amazon.

9.2 The Brazilian Extended Continental Shelf: A Larger Blue Amazon

Brazil’s strategic interests on the continental shelf date back to 1950, when Act no. 28.840 incorporated the continental shelf to the national “territory”. After that, several constitutional and ordinary laws regulated the continental shelf, including the notorious Decree no. 1.078/1970, which expanded Brazilian sovereignty seaward up to 200 nm, including on the continental shelf. By then, it had become clear to national strategists that the seabed is as relevant to economic prosperity as the other dimensions of the ocean. The 1970 “Sovereignty” Act

had among other objectives to establish unequivocally that the country sovereignty over the seabed and its subsoil extends until at least the distance of 200 nautical miles. This distance goes far beyond where the depth 200 meters from the Brazilian shore. In other hand, the adoption of the 200 miles did not implied the renunciation to the continental margin areas (or the continental shelf, in the proper sense), which has proven to extend beyond this limit.⁸²

The next legislative step was to adopt the 1988 Federal Constitution and to promulgate UNCLOS domestically via Act no. 8.617/93, whose Art. 11 specifically disciplines the continental shelf regime—provisions which will be examined further below.

Such strategic interest attributed to the continental shelf is not unfounded. Its riches lie not only on the *economic* potential of non-living resources, mainly hydrocarbons and minerals—as confirmed by the REMPLAC Action, mentioned supra, but also on the *biodiversity* universe to be unveiled thereon. It is no novelty that massive hydrocarbon reserves exist in the so-called “pre-salt” area, which extends beyond 200 nm. In 2005, the Brazilian oil state company, Petrobras, published the first evidences of oil and gas in the pre-salt fields, namely in the Santos Basin (*Tupi* Field). In 2008, production *in situ* kicked off and the first oil barrel from the pre-salt was sucked up from the Campos Basin—off the coast of Rio.⁸³

⁸²Castro (1989), p. 20.

⁸³See Section “Facts and Info” of the Petrobras website. From the first oil extracted in the pre-salt in September 2008 to the volume of 2.07 million barrels-per-day achieved in April 2020, results have been largely positive. There has been a surge since late 2018, when production reached 1.5 million bpd. Available at: <https://petrobras.com.br/fatos-e-dados/>. Accessed 11 April 2020.

From a *biodiversity* perspective, the Brazilian continental shelf thrives with life. There are records of rhodolith beds consisting of a diversity of living organisms in both steep and shallow areas of the shelf.⁸⁴ Furthermore, recent scientific discoveries of corals off the Amazon coast, in 2016,⁸⁵ and extremely biodiverse seamounts off the coast of the Martim Vaz and Trindade islands, in 2017,⁸⁶ have dragged attention to the biodiversity potential of the Brazilian continental shelf and the risks ran in case such marine life rest unregulated and unprotected.

Still, of the vast amount of seafloor constituting the Brazilian continental shelf—approximately 4.5 mi km², little has been explored, a conclusion reached by the IX PSRM, both in terms of biodiversity and non-living resources' potential. Given that marine scientific research has only to a limited extent impregnated the Brazilian political and scientific agenda, it is difficult to list the species of deep-water marine life populating the Brazilian outer continental shelf and where precisely those ensembles of marine fauna and flora ought to be found. Despite such restrictions, progress has been made in mapping out the seafloor, both in terms of economic resources and overall fauna and flora, with a significant role played by the Action REMPLAC and the independent Plan LEPLAC, to map out the Brazilian shelf and ground the submission for outer limits, conjointly implemented by the Brazilian Navy and the Petrobras.

9.2.1 *The Brazilian Continental Shelf Survey Plan: LEPLAC*

As early as 1978, Brazil had evidences that its continental margin would exceed the 200 nm limit at some points. The country produced at the time more than half of its petroleum offshore and understood the strategic value of having an extended continental shelf. In 1986, the Brazilian Government initiated a project to survey the outer limits of the Brazilian continental shelf beyond 200 nm, based on Art. 76 UNCLOS, which produced the first results a year later,⁸⁷ at a moment when UNCLOS was not

⁸⁴Rhodoliths are colorful, unattached, branching, crustose benthic marine red algae. The surface morphology of rhodoliths presents variations regulated by depth, hydrodynamic bioerosive processes and taxonomy. For more, see Horta et al. (2016), p. 117.

⁸⁵The Amazon coral reefs are tacked away on the bottom of the Atlantic Ocean, at a depth which varies from 70 to 200 m. Worryingly, the corals are located in an area that could at any time be released for oil exploration. The discovery was made by Brazilian researchers aboard the ship Esperanza, donated by Greenpeace to the scientific mission.

⁸⁶The seamounts around the Islands of Trindade and Martin Vaz hold one of the highest rates of biodiversity among all Atlantic islands. In addition, there is a high diversity of open sea and deep-sea species, including those of commercial importance, all found around the seamounts and the oceanic islands of the Chain. The area where the seamounts have been registered has been declared an MPA in March 2018. Federal Decree no. 9.312/2018, MMA, 2018.

⁸⁷In June 1987, the oceanographic ship *Almirante Câmara*, of the National Hydrographic Directorate, of the Brazilian Navy (DHN) held the first survey mission of the Brazilian continental shelf. Information available at LEPLAC page of the Brazilian Navy's website.

yet in force, nor had been domestically ratified in Brazil. During the first phase of data collection, about 330,000 km of multi-channel, bathymetric, magnetic and gravity seismic data were collected along the entire length of the Brazilian continental margin.⁸⁸

Those events preceded the adoption of the *Brazilian Continental Shelf Survey Plan* (LEPLAC), as part of the II Marine Resources Plan, in order to collect geodesic and bathymetric data for the delineation of the outer limits of the Brazilian shelf.⁸⁹ LEPLAC emphasized the importance of surveying the outer edge of the Brazilian continental margin as a way to integrate living and non-living resources to Brazil's socioeconomic reality, to increase knowledge on them and to promote their rational use. The Survey Plan was also praised as a means to enhance the Brazilian influence over the South Atlantic Ocean through a pioneering activity that could serve as a cooperation tool with other countries washed by that ocean.⁹⁰

Working within LEPLAC were the Navy, Petrobras, the National Department of Mineral Production, Higher Graduate Schools on Geology and Marine Geophysics, as well as members of the scientific community. In fact, the Decree no. 98.145/1989 had the Survey Plan stimulate the employment of Brazilian researchers and the private sector in surveying activities. LEPLAC's initial field-work lasted for about 10 years and gathered data over more than 350,000 km of the Brazilian seafloor. During the twenty expeditions of its initial phase, bathymetric, seismic, gravimetric and magnetometry data were collected on a gigantic scale, the costs of which have been estimated in over US\$ 40 million, conjointly spent by the Navy (with ship employment and project execution) and Petrobras (acquisition and processing of geophysical data).⁹¹

In short, the Survey Plan represented the possibility for Brazil not only to gather the data needed for a formal submission on the outer limits of its continental shelf to the CLCS, but also to increase national knowledge on the marine environment thereon. The delineation of the outer limit of the continental shelf is considered a fundamental legacy for future generations in Brazil, as it enables increased possibilities of new petroleum fields farther away offshore, the exploitation of biotechnology and biogenetics, as well as the exploitation of non-living resources at depths not yet commercially viable. The technology for that is there, as Petrobras proves to be one of the most advanced companies worldwide with technical skills and know-how to conduct such hardcore exploitation. The legacy is also related to the international

⁸⁸Marinha do Brasil. LEPLAC—*O Brasil além das 200 milhas*. Apresentação da Região Sul nas Nações Unidas. Sep 2017.

⁸⁹The first LEPLAC was approved by Decree no. 95.787/1988, which was revoked by Decree no. 98.145/1989 one year later.

⁹⁰LEPLAC underscored its usefulness in meeting one of the essential objectives of Brazil's foreign policy in relation to the South Atlantic, to foster the development of the potential of the countries of the region through a cooperative effort among them, without interference by foreign powers.

⁹¹Marinha do Brasil. Diretoria de Hidrografia e Navegação. LEPLAC—*Plano de Levantamento da Plataforma Continental Brasileira*. Available online at: https://www.mar.mil.br/dhn/dhn/quadros/ass_leplac.html. Accessed 11 April 2020.

cooperation made possible by LEPLAC, as Brazil gained unique technical training regarding the delineation of outer limits, thus clearing prospects for international technical cooperation with neighboring coastal states on that regard.

Thus far, Brazil has forwarded *three submissions* for outer continental shelf limits to the CLCS.⁹² The first submission dates from 2004, well within the 10-year limit established at the SPLOS,⁹³ claiming sovereign rights over approximately 911,000 km² of extended continental shelf. The submission was followed by revised partial submissions in 2015, 2017 and 2018.⁹⁴ The fact that the Brazilian submission was presented within the 10-year limit has been praised as demonstrating the country's "compliance in good faith with Article 76 UNCLOS".⁹⁵ Following deliberations on the initial submission, the CLCS formalized recommendations in April 2007, according to which Brazil was acknowledged approximately 765,000 km² of the claimed limits, which corresponded to approximately 79% of the initially required area. The remaining 21% were not initially acknowledged, mostly due to insufficient data supporting the submissions. Yet, in 2019 the Commission approved the recommendations regarding the partial revised submission made by Brazil in respect of the Brazilian Southern Region.⁹⁶

Hence, the Brazilian government persisted with LEPLAC activities, with a view to preparing revised proposals, in order to have the Commission greenlight the rest of the area initially requested. The entire extension requested by Brazil corresponds to five areas: Amazonas Cone, Northern Chain, Vitória e Trindade Chain, Southern Continental Margin, and São Paulo Plateau.⁹⁷

The *Amazonas Cone*—one of the largest submarine sedimentary cones in the world—is formed by the successive depositions of sediments brought from the mouth of the Amazon River. The Amazon cone has the largest sedimentary thicknesses of the Brazilian continental margin.⁹⁸ The cone is often described as an "anomalous sedimentary accumulation",⁹⁹ with its own peculiarities, in which sedimentary accumulation occurs on the continental geomorphological platform, thus making it extremely difficult to assess the exact foots of continental slope,

⁹²The Commission on the Limits of the Continental Shelf established by the Convention had granted a period of up to 10 years from the date of entry into force of the Convention for the delineation of the outer limits beyond 200 nm. That limit was later amended.

⁹³Meeting of the State Parties to the UN Convention on the Law of the Sea, *SPLOS/72*, which determined the commencement of the 10-year period as 13 May 1999.

⁹⁴See Brazilian Executive Summaries of Submission, available online at the CLCS website.

⁹⁵Silva (2012), p. 299.

⁹⁶CLCS/108, *Progress of work in the Commission on the Limits of the Continental Shelf*, Forty-ninth session New York, 28 January–15 March 2019.

⁹⁷For a detailed chart, elaborated by the Hydrographic Department of the Brazilian Navy and Petrobras, see Brazilian Summary, CLCS. Available at: https://www.un.org/Depts/los/clcs_new/submissions_files/submission_bra.htm. Accessed 11 April 2020.

⁹⁸Mohriak (2003), p. 89.

⁹⁹Figueirôa (2014), p. 61.

according to the typical models of Art. 76 UNCLOS. Its marking feature is the smooth and low-gradient slope into the ocean floor.

The *Northern Chain* begins East of the Amazon cone and is associated with the Equatorial Fracture Zone, which formed upon the separation between Northeastern Brazil and Equatorial Africa. The Chain illustrates ongoing tectonism, in which continental plates slid side by side in opposite directions, forming marginal chains relatively parallel to the coast on the fracture zones. The Northern Brazilian Chain acts as a natural barrier to sediment deposition on the continental margin, thus rendering the margin rather short in comparison with other parts—an area where Brazil has less bold claims to outer limits.¹⁰⁰

Southwards, the continental margin of Brazil has once again a broader width. The *Vitória-Trindade Chain*, formed by a linear sequence of hills that extend along the coast of Espírito Santo stands out in this area, linked geologically and geomorphologically to the bank of Abrolhos. It covers about thirty seamounts and is 950 km in length. At its far East are the islands of Trindade and Martim Vaz, around which the frequency of the seamounts increases, which suggests intense magnetism associated with them

The *São Paulo Plateau* consists of another enlargement of the Brazilian continental margin, with a formation associated to the rupture of the Gondwana paleocontinent. Largest marginal plateau of the Brazilian coast, the São Paulo Plateau interrupts the continental slope, standing between it and the continental rise, and has sediments that can reach up to 4 km in depth, covering the sedimentary basins of Campos, Santos and Paraná—precisely where most of the oil production in Brazil and all the pre-salt reserves are.

To the south of the São Paulo Plateau, the continental margin slides down until Brazil’s maritime border with Uruguay. The *Southern Continental Margin* has characteristics of a margin heavily modified by the magmatism that led to the Gondwana separation. Within that margin are the Santa Catarina Plateau and the Rio Grande Cone, which share with the Amazon Cone the characteristic of a smooth and relatively constant slope, since the continental shelf and into the ocean floor, without the classic slope and steep divisions.¹⁰¹ Brazil’s claim towards the Southern Margin was approved by the CLCS in March 2019.

Thus far, only the executive summaries of the Brazilian submissions have been made public, as part of the strategy chosen by the Brazilian delegation, pursuant to Rules 48 and 49 of the CLCS, in order to safeguard sensitive information on the Brazilian submarine areas from the eyes of third states. As explained in Chap. 3, such a behavior has raised criticisms from international specialized literature, due to the act that secrecy prevent other states from assessing the lawfulness of the Brazilian claims, thus adding to the opacity of the delineation procedure and to cuts of overall legitimacy.¹⁰² The issue of secrecy has also raised much uproar in the case of the

¹⁰⁰Milani et al. (2000), p. 360.

¹⁰¹Torres et al. (2008), p. 2.

¹⁰²Egede (2006), p. 42. See also Macnab (2004), p. 11.

Russian submission, when responses from Denmark, Japan, Canada and the United States have emphasized the impossibility of the affected neighboring states to confirm the lawfulness of the Russian claims and its consistency with the criteria set out in Art. 76 UNCLOS.

Upon knowledge that UNCLOS would permit the delineation of outer continental shelf limits beyond the default length of 200 nm, Brazil did not waste time and created LEPLAC almost simultaneously with domestic ratification of the Convention, thus portraying the relevance of the continental shelf to the Brazilian interests. The operationalization of the continental shelf Plan also emphasized Brazil's determinacy in asserting jurisdiction far offshore in the South Atlantic Ocean. Ultimately, the measure was inspired by a mix of geopolitical ambitions and the prospect of future economic benefits.¹⁰³ LEPLAC mirrored a country zealous of its authority seawards, even if it did not stand at its best moment in economic and financial terms—the 1980s are known in Brazilian political science literature as the “lost decade”, given the successive economic crises, hyperinflation and several emergency changes of currency.

Still in the international arena, Brazilian expertise acquired while collecting scientific data and preparing its CLCS submissions has been shared with other neighbors in the South Atlantic Ocean. One such country is Namibia, which has counted on consultancy from Brazilian experts to draft its own proposal.¹⁰⁴ Such a conduct is the outcome of the Brazilian Decree establishing LEPLAC, which refers to “intrinsic relevance of knowledge gained throughout the procedure of data collection”.¹⁰⁵ During the Lula da Silva presidency, Brazil was keen on stimulating the development of regional potentialities, by offering help to neighboring countries in following a similar path—a cooperative posture that sought to repulse the undesired interference of foreign naval powers in the South Atlantic Ocean.

9.2.2 *Status of the Brazilian Submissions*

Phase II LEPLAC began in 2008 and collected approximately 440,000 km of geophysical data. After the CLCS's denial of 21% of the country's initial submission, Brazil opted for drafting and submitting three partial revised submissions. On 10 April 2015, the *Subpart of the Southern Region* was submitted to the CLCS, upon five meetings with the Commission's Subcommittee responsible for entertaining the Brazilian submission, made up of experts from Angola, Chile, South Korea, Denmark, Japan and Nigeria. On 8 September 2017, the Subpart of the *Brazilian Equatorial Margin* followed suit,¹⁰⁶ a move confirmed by the 2018 letter of the

¹⁰³This opinion is shared by Zanella (2017), p. 411.

¹⁰⁴Namibia's submission to the CLCS, 13 May 2009. See Moller (2003), p. 248.

¹⁰⁵Marinha do Brasil, *LEPLAC*, 11.

¹⁰⁶The second Brazilian revised submission contains: an introduction to the physiography of the Equatorial Margin, a detailed description of the regional morphology, the methodologies applied to

CLCS Chair to the 28th SPLOS, in which the Commission assured the hearing of “presentations on new, amended or revised submissions made by several States since the previous Meeting of States Parties, namely, Brazil, in respect of the Brazilian equatorial margin (partial revised submission)”. Finally, on 7 December 2018, the Brazilian delegation ledged the third partial revised submission, related to the Brazilian Oriental and Meridional Margin. As of April 2020, the Commission had approved recommendations concerning the first Brazilian revised submission, on the Southern Continental Margin.

The Brazilian strategy seems to be one of slicing the revised submissions in parts, so as to increase the likelihood of obtaining positive recommendations by adapting posterior partial revisions to the approach adopted by the CLCS during the analysis of the previous ones. An inherent risk of walking this path is to end up in an endless “ping-pong” match with the Commission, given the amount of Brazilian partial revised submissions and the lack of a formal restriction on states resubmitting infinite revised applications for outer continental shelf limits to the CLCS.¹⁰⁷

9.2.3 The Brazilian Blue Amazon: A Political Concept with Legal Implications

The ocean has been occupying a crucial place in Brazilian history since colonial times. Yet, only in the second half of the Twentieth century did the country start nurturing special interests in maintaining a certain level of geopolitical influence over the South Atlantic Ocean, in order to keep the region secure and untroubled by Northern maritime powers. Episodes such as the “Lobster War” against France—a Northern naval power—over the fishing rights of lobsters and other crustaceans on the Brazilian continental shelf, in 1963, highlight the relevance attributed by Brazilian authorities to the country’s maritime aspirations—which sometimes took the shape of unilateral jurisdictional assertions.¹⁰⁸

Moreover, Brazil’s active participation in the Third Conference, as one of the leaders of the Group of 77—which then rendered Brazil the fame of “leader of territorialists”, is also an emphatical evidence of the value that the country attributed to a new order for the oceans. Prioritizing negotiations over shows of force and “gunboat diplomacy” has been historically a means for weaker countries to advance an agenda favorable to their interests at the international stage. For that reason,

the implementation of the provisions of Article 76 UNCLOS, as well as three appendices on the data obtained by LEPLAC Phase 2, the description of the foot of the continental slope points and the description of the points with 1% sedimentary thickness used when defining the outer limits. See Brazilian Executive Summary, “*Continental Shelf and UNCLOS*”, presented to the CLCS, 8 September 2017.

¹⁰⁷That risk was highlighted, among others, by Silva (2012), p. 117.

¹⁰⁸Azzam (1964), p. 1453.

perhaps, Latin American diplomats and intellectuals have stood at the forefront of some renowned doctrines in international law, such as the Calvo and Drago doctrines.¹⁰⁹

Yet, the greatest challenges for Brazil's interests offshore have just emerged, namely upon the discovery of the massive hydrocarbons reserves of the pre-salt layer, off the Brazilian South-East coast. Despite the existence of such mineral and ecological riches; the geopolitical relevance of the ocean for the Brazilian economy; and the fact that more than 80% of the Brazilian population live near the coast, ocean-related matters are still relatively unknown to large portions of the Brazilian population. According to a comprehensive report by the Brazilian Excellence Cluster for the Seas (CEMBRA), while 73% of the Brazilians who participated in the study attributed large relevance to the sea, they perceived the sea almost exclusively as a source of food and leisure. In addition, UNCLOS was known to only 22% of the Brazilian population and, concerning, only 8% of the population was aware that the territorial sea stretches up to 12 nm from the baselines.¹¹⁰ Compared to oceans, forests—in particular the Amazon—seem to enjoy greater importance, awareness and consciousness among Brazilians.

The lack of a “maritime mentality” can be explained in terms of the dichotomy between *maritimity*—or maritime dimension—and *continentality*, i.e. the focus of a certain population on the role played by the seas or the mainland on their well-being. Paradoxically, while the Brazilian delegation negotiated UNCLOS, Brazilian military generals grappled with the issue of terrestrial sovereignty in the farthest corners of the country. Stimulating the economic development of Brazil's inland and upholding national sovereignty over land boundaries and natural resources were key strategies of different governments in Brazil during the second half of the last century. The construction of Brasília in 1960, by President Juscelino Kubitschek, and the “March to the West” of the 1970s and 1980s stimulated by the military regimes aimed at asserting Brazilian populational presence over the land territory, especially those areas with least demographic density around the Amazon forest.¹¹¹ Those efforts can be said to have aroused a certain continentality among Brazilians, even those who live at the littoral.

The monstrous challenges facing the management of the Amazon forest remain, especially in light of the recent renewal of alarming deforestation rates within the

¹⁰⁹For more on both doctrines, see Hershey (1907), p. 27.

¹¹⁰CEMBRA (2012), p. 466.

¹¹¹Such policies were not uncontroversial, but it can be said that they brought more benefits than evils to the country's overall economic, social and political situation. If, on the one hand, they may have generated negative outcomes, particularly the farming pressure towards the Amazon forest that claimed record levels of deforestation during the late 1980s and 1990s, on the other, he marches fulfilled the goal of occupying larger portions of the mainland, prompted the birth of one of the most competitive and efficient agricultural sectors of the world, and dispelled fears of the “internationalization” of the Amazon forest and foreign military interventions in the region. For a resounding critique against the calls for “internationalizing” the Amazon forest, see generally Buarque (2004).

Brazilian territory,¹¹² as do also challenges to assert of sovereignty and public power in Brazil’s terrestrial boundaries. Still, public authorities, decision-makers and armed forces have also come to realize that the attention dedicated to the land territory had rendered another border “neglected”, and it is not an irrelevant one. Brazil’s international efforts to assert jurisdiction seaward and to protect riches adjacent to the shore met a timid effort domestically to create legal and institutional conditions for such arduously acquired rights and duties in the international sphere to be implemented.

That scenario slowly began to change in the late 1980s, upon the domestic ratification of UNCLOS in 1988, as well as the decision to kickstart LEPLAC. Internationally, the country negotiated with fellow states sharing the South Atlantic Ocean the transformation of the area into a nuclear free and peaceful-uses only ocean, and creating an organization and military alliance, the so-called South Atlantic Peace and Cooperation Zone (ZOPACAS) in 1986.¹¹³ Subsequently, in the 1990s, public policies and acts aimed at governing the oceans were enacted, such as the Ocean Act no. 8.617/1993; the 1994 National Maritime Policy; the Marine Scientific Research Decree no. 96.000/1988, among others.

Despite those steps, not enough attention had been dedicated to reverse the context of decades of overlook of the oceans and the Brazilian Navy—unable to secure and protect the vastness of the Brazilian marine spaces. In parallel, some authors warned to the possible “race to carve up the seabed”¹¹⁴ upon the adoption of UNCLOS, a move which steered national measures worldwide towards increased investments in ocean exploration and exploitation technologies, namely in the field of biogenetic resources and deep-sea mining.

In this context, Navy Admiral Roberto de Guimarães Carvalho coined the phrase “Brazilian Blue Amazon” in 2004, not per coincidence in the same year of the first Brazilian submission for an outer continental shelf before the CLCS.¹¹⁵ By creating and spreading the idea of a “Blue Amazon”, with its slight poetic touch, the Brazilian Navy placed itself as an actor to be heard in the domestic political debate, thus proposing policies and highlighting the need for a well-equipped naval force to safeguard not only the country’s interests in the adjacent waters but also the “ocean destiny” neglected by Brazil for decades, according to doctrines fed within the Navy.¹¹⁶ As the future of humanity is expected to depend on the riches of the sea,

¹¹² According to the *Brazilian National Institute for Space Research* (INPE), deforestation rate of the Brazilian Legal Amazon was 9762 km², from August 2018 to July 2019. This value represents an increase of 29.5% in relation to the deforestation rate of the previous year, which was 7536 km². That is the highest rate since 2008, and may well represent a trend for the Jair Bolsonaro presidency, for reasons explained below. Available at: <http://www.inpe.br/> Accessed 12 April 2020.

¹¹³ UNGA Resolution A/RES/41/11, *Declaration of a Zone of Peace and Co-operation in the South Atlantic* (ZOPACAS), 16 October 1986.

¹¹⁴ Cavnar (2009), p. 391.

¹¹⁵ Carvalho (2004), online.

¹¹⁶ The 2012 CEMBRA Report emphasizes, in a rather grandiloquent fashion, that “Brazil’s maritime destiny is a birthmark”. See CEMBRA (2012), p. 174.

the Brazilian Navy considers it paramount for Brazil to pursue its *destiny* by enforcing its maritime awareness, “so that the Brazilian sea is protected from environmental degradation and from international interests”.¹¹⁷

The Blue Amazon may be understood as an all-embracing concept which integrates all maritime zones under some degree of Brazilian jurisdiction which quickly became a key geopolitical concept with profound legal implications. The idea of a Blue Amazon now informs actions and plans of the Navy, environmental protection agencies, research centers and institutes, among others. In 2010, the phrase was registered as a trademark, and in 2013, Brazil founded the *Blue Amazon Defense Technologies Corporation* (AMAZUL), a public corporation charged with modernizing the Brazilian naval fleet—an indispensable tool for monitoring such an immense area.¹¹⁸ In order to understand Brazilian ocean policies and laws, it is paramount to study the concept of the “Blue Amazon” in its multifaceted-nature.

As such, there are two possible dimensions of the “Blue Amazon” concept, two ways in which it can be defined: the physical area and the extension of maritime spaces comprised by the expression—definition *ratione loci*; and the uses and activities in those maritime spaces, including the respective challenges of governing the areas within national jurisdiction on a principle manner—definition *ratione materiae*.

Ratione loci, the Blue Amazon consists of the ensemble of territorial sea, EEZ and continental shelf off the Brazilian coast, i.e. the physical medium delimited in accordance with the pertinent UNCLOS provisions. That comprises a surface of 3,539,919 km², which remains, nonetheless, unsettled in light of Brazil’s partial submissions to the CLCS for the delineation of continental shelf outer limits. If approved, Brazilian claims will grant the country jurisdiction over an extended area of about 911,000 km² seaward to the EEZ, rendering the Brazilian continental shelf approximately 4.5 million km² in total.¹¹⁹

The frenzy with the new concept steered a plethora of domestic publications on the Blue Amazon, its definition, objectives and practical implications for the Brazilian authorities. Somewhat regrettably, Brazilian scholars have misleadingly referred to the Blue Amazon as the “Brazilian maritime territory”¹²⁰ or the “Brazilian jurisdictional waters”,¹²¹ references that deserve immediate clarification. Firstly, it is

¹¹⁷According to former Brazilian President Juscelino Kubitschek, Brazil was “an ocean-facing nation, and shipping is, and will be, for a long time, the truly national communications system of our extensive coastal strip, where the main centers of economic activity in the country and most of its population”. See Juscelino Kubitschek, *Diário Oficial da União*, 18 February 1959, 77, para. 187. Also, on the awareness page, in order to raise awareness to the relevance of the concept and the projects and visions of country behind it, Brazil instituted the *National Blue Amazon Day*, celebrated on 16 November, day of UNCLOS’ ratification in Brazil.

¹¹⁸The Amazul S.A. was instituted by Federal Act no. 12.706/2012.

¹¹⁹As of April 2020, the CLCS had received 85 submissions, some from the same state who chose to separate its claims.

¹²⁰Martins (2007), p. 266.

¹²¹Marques (2007), p. 143.

not “territory”, because territory in international law is a stark concept with clear definition; it is the physical medium where a state exercises sovereignty.¹²² In this sense, only the internal waters and the territorial sea, and not the EEZ nor the continental shelf of coastal states are to be considered as territory. Given that the notion of “Blue Amazon” concretely encompasses the Brazilian EEZ and continental shelf, it would be misleading to label it as “territory” belonging Brazil, even if the qualifier “maritime” is added to the phrase. The same holds true for any references to “jurisdictional waters”, as the continental shelf beyond 200 nm does not comprise Brazilian waters, but solely the seabed and subsoil thereof. Scholars should, thus, favor the use of maritime “space” or “areas”, and refrain from making references to “territory” or “jurisdictional waters”, as the adequate legal phraseology for referring to the Brazilian Blue Amazon.

Ratione materiae, the Blue Amazon concerns the governance and regulation of ocean uses, such as the rational management of living resources, the ecological operation of ports, the sustainable exploitation of the pre-salt hydrocarbon reserves, the prospects of mineral resources, among other challenges. The concept of a Blue Amazon takes into account that the ocean is an endless source of resources; has incalculable natural assets; and has a precious biodiversity—further reasons for the analogy with the Amazon forest.¹²³ Those are motives enough to envisage the concept as more than just the sum of maritime spaces where Brazil exercises either sovereignty or the right-duty to manage natural resources and the marine environment: it comprises the governance challenges ahead of Brazilian authorities, especially in terms of environmental protection, marine security, and sustainable development. It informs the objectives of efficiently managing the maritime zones under Brazilian jurisdiction, be it jurisdictional waters or the seabed. By adding the adjective “blue” to the heavy-loaded word “Amazon”, the Brazilian Navy intended a link not only with the element of the ocean’s color—as in the other well-known concepts of “blue planet” or “blue economy”, but mainly to raise awareness to the *potentialities* and *challenges* of managing the Brazilian maritime space.¹²⁴ Yet, it should always be kept in mind, for methodological and clarity purposes, that the focus of this chapter lies on the domestic environmental powers over continental shelf activities—even if the Blue Amazon refers to the totality of the marine zones.

¹²²For more on the criteria of statehood according to international law, and a definition of territory, see Crawford (1977), p. 93.

¹²³Information available at the homepage of the Brazilian Navy, Section on the Blue Amazon: <https://www.marinha.mil.br/content/amazonia-azul>. Accessed 12 April 2020.

¹²⁴The analogy between blue and green economies, as in the case of blue and green Amazons, is explained in the Concept Paper drafted by the UNEP, according to which “the Blue Economy espouses the same desired outcome as the Rio +20 Green Economy initiative namely: “*improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities*” and it endorses the same principles of *low carbon, resource efficiency and social inclusion*, but it is grounded in a developing world context and fashioned to reflect the circumstances and needs of countries whose future resource base is *marine*”. See UNEP, “Blue Economy Concept Paper”, 2012, online.

A mesh of theories has shaped the concept of a Blue Amazon, particularly in the field of international relations and geopolitical studies.¹²⁵ Currently, it seems to be consensual in academia that three main pillars support the theoretic edifice of the Blue Amazon. Firstly, the strong association between the Blue Amazon and *oceanopolitics*—understood as geopolitical studies centered on the oceans—which attributes great relevance to the management and defense of the Blue Amazon in line with UNCLOS.¹²⁶ Secondly, the consideration that only an efficient management of the Blue Amazon will pave the way for economic prosperity and the defense of Brazilian sovereignty.¹²⁷ Thirdly, the categorization of the Blue Amazon in four main dimensions—or major areas of interest of the Brazilian state: assurance of sovereignty national defense, via exercising politico-strategical influence in the South Atlantic Ocean; economic prosperity; scientific and technological innovation; and, finally, environmental conservation.

Beginning by that last theoretical “pillar”, or the dimensions of the Blue Amazon, one should clarify upfront that a hierarchy exists between them. In most states’ strategic calculations, considerations of an economic, political, and sovereignty nature occupy a more privileged place than environmental ones in national long-term planning and decision-making. To use a term borrowed from international relations theory, the economic, political and sovereignty realms could be equaled to topics pertaining to “high politics”, whereas environmental considerations are rarely given such a centrality, being usually relegated to the field of “low politics”.¹²⁸

9.2.3.1 Sovereignty and Defense Dimension

Stark emphasis is laid on the dimension of sovereignty and national defense of the Brazilian Blue Amazon concept. For the Brazilian naval strategists, reflections on the South Atlantic Ocean relate to matters of geopolitical influence through the sea towards other states. The South Atlantic represents the most accessible medium for Brazilian regional power projection, but its importance has not been linearly assessed throughout the country’s history. An important landmark in the theorizing of the South Atlantic Ocean as a key platform for the projection of Brazilian geopolitical influence can be found in the 1996 First National Defense Policy, according to which, “the conception of regional space extrapolates the South American continental mass and also includes the South Atlantic Ocean”.¹²⁹

¹²⁵Several texts and publications dedicated to analyzing different facets of the Blue Amazon concept are authored by officials of the Brazilian Navy or have been bred within the premises of the Brazilian Naval War College. It is the case of publications by Barbosa Júnior and More (2012).

¹²⁶More (2012), p. 247.

¹²⁷Marinha do Brasil (2013), p. 10.

¹²⁸For a critical view on the distinction between “low” and “high politics” in international relations theory, see Olsen (2017), p. 638.

¹²⁹Ministério da Defesa do Brasil (1996) *1º Plano Nacional de Defesa*.

The conception of the South Atlantic Ocean as an acute defense concern for the Brazilian authorities gained momentum over the 2000s. In 2008, the National Defense Strategy (EDN)¹³⁰ a document discussed between government, military forces and civil society, declared both the Blue and Green Amazons the *crux* of defense apprehensions for the Brazilian armed forces. The document was then updated in 2012, under the Rousseff Presidency, in order to crystallize the main pillars of the Brazilian strategic naval thinking, contemplated by a mostly deterrent policy: denial of the use of the sea, control of adjacent maritime areas and projection of power regionally. Following the 2012 EDN, Brazilian strategists have coined the phrase “Brazilian strategic contour” (*entorno estratégico brasileiro*) to refer to most sensitive areas surrounding Brazil in terms of defense considerations, a crucial part of which is the South Atlantic Ocean. According to the Brazilian Navy, key strategic and defense maritime areas for the country, in descending order of priority, are the “*vital area*”, or the Blue Amazon; the “*primary area*”, which covers the South Atlantic Ocean, defined as the part comprised between the 16° N parallel, the west coast of Africa, Antarctica, eastern South America and the eastern Lesser Antilles (excluding the Caribbean); and, finally, the “*secondary area*”, encompassing the Caribbean Sea and the South Pacific Ocean. In sum, the so-called “Brazilian strategic contour” comprises the “*vital area*” and the “*primary area*”, including the South Atlantic Ocean, the West African coast and Antarctica.¹³¹

The successful narrative created by the Brazilian Navy on the sovereignty dimension of the Blue Amazon has leveraged the Navy to the spotlight of domestic political debates, thus granting the Navy increased funding for strategic projects, as well as greater awareness as to the need for a well-equipped force, capable to protect the Brazilian Blue Amazon. In fact, the sovereignty and defense elements of the Blue Amazon have in the Brazilian Navy their main guardian, which is bound by the constitutional duty to defend the country from external threats, as well as to safeguard the constitutional order domestically.¹³² In its mission to dissuade traditional and modern marine threats off the Brazilian coast, which range from terrorism, drug, arms and people trafficking, piracy, as well as climate change, ocean structural modifications, marine pollution and biodiversity death, the Navy ought to be equipped with trained personnel, best means and cutting-edge technology. If any

¹³⁰Ministério da Defesa do Brasil (2008), p. 4. Despite the relevance attributed to the defense of the South Atlantic Ocean, due to Brazil’s marine resources and geopolitical interests therein, the 2008 Defense Strategy makes no reference to “Blue Amazon”.

¹³¹Estratégia Nacional de Defesa (2012), pp. 19, 23. In addition to that, for further detail on each strategic maritime area, see generally Pesce (2008).

¹³²To protect the Brazilian Blue Amazon, the Navy lays priority on denying potential enemy forces access and use of Brazilian waters, pursuant to international law. Navy actions are informed by strategic objectives delineated in the 2012 EDN, namely: protection of oil rigs, naval and port facilities, archipelagos and oceanic islands within Brazilian jurisdictional waters; readiness to respond to any threat to maritime trade routes, by state or unconventional, criminal forces, and ability to join international peace operations, outside Brazilian jurisdictional waters, under the aegis of the United Nations or multilateral organizations in the region. See Estratégia Nacional de Defesa (2012), p. 69.

country in the world wishes to effectively combat such threats, it is indispensable to structure themselves appropriately, with a management and monitoring system strengthened by partnerships, information sharing and cooperation with other institutions and the Navy.

A list of concrete outcomes of the political pressure exerted by the Blue Amazon concept domestically include the negotiations to purchase 36 *Gripen* fighter jets from the Swedish company SAAB;¹³³ and the founding of the AMAZUL S.A., the public company established to promote, develop, transfer and maintain technologies sensitive to the Brazilian Marine Nuclear Program (PNM), the Submarine Development Program (PROSUB), and the Brazilian Nuclear Program (PNB). In this context, AMAZUL's primary mission is to support the development of a nuclear-propelled submarine, a technological advancement taken as essential by Brazilian strategists for the monitoring of Blue Amazon. In order to execute its projects and offer technological services, the company has sought to attract qualified human resources, a massive challenge in a developing economy which undergoes a severe political and economic crisis.¹³⁴

The sovereignty and defense dimension of the Blue Amazon concept also informs *politico-strategic considerations* for the South Atlantic Ocean. In fact, the concept itself is essentially politico-strategic, both for international and domestic purposes, as it locates maritime spaces in a decisive position for the dynamics of international relations and the well-being of the Brazilian population. In a broader scenario, the entire philosophy behind the narrative of a "Blue Amazon" points towards the use of the oceans for national development and international cooperation. For that reason, the Brazilian Navy equals the preparedness to defend the Blue Amazon as a prerequisite for the country to exert geopolitical influence in the South Atlantic Ocean, while attaining economic prosperity and social development. To those goals, strategic projects of the Brazilian Navy have sought for a strong synergy with academic, industrial and business sectors.

Regarding the international cooperation objective, *capacity-building* programs have been designed and implemented, so as to stimulate cooperation with countries such as South Africa, Namibia and others. The idea behind the curtains is to train highly-qualified specialists in different fields of knowledge, as well as to foster coordination between the navies of the countries involved. In fact,

¹³³The Brazilian Air Force signed a contract in 2014 with the Swedish company SAAB to acquire 36 *Gripen NG* fighter jets, in a total investment of approximately US\$ 4.05 billion. The first aircraft was delivered in 2019, and the last one should occur in 2026. The contract involves the training of Brazilian pilots and mechanics in Sweden, logistical support and the transfer of technology to Brazilian industries, as part of the country's policy to surveil the Blue Amazon.

¹³⁴The political and economic crises referred to here has been triggered by the Impeachment of former President Dilma Rousseff, in 2016, which paved the way for her Vice-President to rule the country, imposing austerity measures that have deepened the symptoms of political turbulence and economic backlash. Despite minor recovery signs, the overall scenario for the Brazilian economy and political arena, at the time of writing is devastating. For more on the causes for the crises, see Malamud (2017), p. 150.

Brazil intends to support an emerging South Atlantic system of maritime traffic by expanding its own data platforms (SISTRAM). These already integrate Uruguay and Argentina via Regional Centre of Maritime Traffic of South Atlantic Area (CRT-AMAS). An ultimate stage of surveillance and control of Brazil’s coasts is the Blue Amazon Management System (SISGAZ). This involves a more comprehensive multi-platform surveillance system (vessels, radars, satellites and drones) and an integrated data processing and communication capability.¹³⁵

In so doing, the country expects to exercise a prominent geopolitical influence in the region, thus keeping the South Atlantic Ocean undisturbed by maritime powers. For instance, the country realizes the massive influence and impact of the British presence in the South Atlantic—through a “belt” of several islands in that Ocean—a situation which has been prompting Brazilian concentrated efforts to reaffirm itself as a regional reference in terms of cooperation for the states bordering the South Atlantic, so that this Ocean remain free from the presence of “the North”—or at least that this presence “does not jeopardize the interests of the South in general and of Brazil in particular”.¹³⁶

Nonetheless, from an international relations perspective, the Brazilian efforts towards increased South-South cooperation do not go unquestioned or uncriticized—no matter how romantic such intentions may sound. Thus far, some limitations have hindered the process of designing unisonous cooperation schemes and common defense strategies for the South Atlantic Ocean. A possible reason explaining such difficulties is the *unilaterality* of the Brazilian narrative on the relevance of the South Atlantic Ocean, which at some point could be mistaken for the attempt to impose a hegemonic will in the entire region. In this sense, scholars have identified the need to hear West African and South American states’ perceptions on the South Atlantic Ocean,¹³⁷ to ensure the pursue of a more or less uniform strategy by those coastal states. Only so could Brazil exercise real geopolitical influence in the region and keep other maritime powers quiet in nudging the region without amounting to a traditional hegemon that holds secretive self-interests and abuses its regional partners to achieve such goals.

9.2.3.2 Economic Dimension

On the economic dimension, it should be clear upfront that the Blue Amazon has living and non-living resource potentialities which have gone unexploited thus far. The living resources may be summed up to natural offshore fisheries, such as the Mullet or the Southern Atlantic Tuna off the Brazilian coast.¹³⁸ Fishing activities are of great importance for local seaside communities, but the practice lacks in public surveillance and control. That renders necessary the daily struggle against predatory

¹³⁵Duarte (2016), p. 105.

¹³⁶Wiesebron (2013), p. 118.

¹³⁷Such a claim is formulated by Pedro Seabra (2017), p. 325.

¹³⁸See Executive Report of the REVIZEE Program (2006) note supra.

practices and IUU fishing by national and foreign vessels with high technology, which disrespects environmental standards and inflicts economic social damages to the country.

The economic potential of the Blue Amazon is not restricted to living resources. Analyses of shipping industry data and the transportation of goods through the seas shows that only 3% of maritime trade in Brazil is operated by the Brazilian merchant shipping. Such a low number suggests the need for investments in this sector, so as to reduce a dependency on foreign ship owners that exercises a negative weight on Brazil's trade balance. Substantial investments are also needed in the modernization of Brazilian ports. For the national economy, dependency on the South Atlantic Ocean is enormous and growing, in light of the expected exploitation of natural resources lying on the adjacent ocean floor.

In fact, Brazil is currently exploiting hydrocarbon reserves of the pre-salt area, in order to meet the demand of the domestic market and guarantee the export of surpluses. That is an undeniable reality, despite traditional skepticism inside Brazil as to the ability of the state-owned petroleum company, Petrobras, to lead the most challenging exploitation of oil in ultra-deep waters. Apart from that, Petrobras developed activities in Africa, including offshore reserves in Namibia.¹³⁹ The expansion of the Brazilian continental shelf requires the carrying out of researches capable of endorsing the prospect, exploration and commercialization of these natural resources, which are economically relevant, but also ecological, for the world.

Some publications on Brazilian geopolitical and strategical calculations see the Blue Amazon as the prospect of achieving economic development through technological advancements and innovation.¹⁴⁰ In other words, the Brazilian maritime zones would form a "Brazilian oceanic complex" with the following main axes: (a) security and defense; (b) aquaculture and fisheries; (c) recreational and leisure activities; (d) renewable energies and offshore exploration; (e) maritime transport; and (f) marine sciences.¹⁴¹ In order to achieve socioeconomic development, Brazil would thus need specific public policies, especially the industrialization of the ocean technology sector, capable of providing long-lasting ground for a developmental standard based on investments on marine sciences and the sustainable use of marine

¹³⁹Information available at Petrobras' website. Available at: <http://201.77.217.135/en/countries/namibia/namibia.htm>. Accessed 12 April 2020.

¹⁴⁰In Brazilian strategic studies, one can find references to the need to overcome the oil-dependency, via materialization of a "Brazilian Oceanic State" (*Estado Oceânico Brasileiro*). That multi-faceted objective is grounded on the belief that Brazil should not repeat the same mistakes from the past and, thus, take the oceans into account when drafting development plans for the future. That Brazilian Ocean State ought to be aware of the risks of turning to the East (i.e. to the ocean) with the same mindset that inspired the occupation of the Green Amazon—illegal granting of lands and lack of monitoring, which nowadays is responsible for alarming rates of deforestation. The occupation of Brazil last economic frontier, the Blue Amazon, must be, above all, *sustainable* in the traditional sense of the word. See More (2012), p. 248.

¹⁴¹Cruz Júnior (2012), p. 115.

resources.¹⁴² Such policies would have the power to turn Brazil into an “ocean developmental state”, a topic that connects the economic dimension of the Blue Amazon with that of science and technology.

9.2.3.3 Scientific and Technological Dimension

On the scientific and technological side, knowledge of the waters under Brazilian jurisdiction is still limited, regardless of the perspective one looks at this dimension. Despite the national policies, programs, plans and actions examined *supra* (such as the REVIZEE), biodiversity within the Brazilian maritime spaces is poorly researched and recorded, in comparison with other maritime states. The recent discoveries of deep-sea corals thriving in the Amazon basin, Northern part of Brazil, and extremely biodiverse and rich seamount around the volcanic islands of Trindade and Martin Vaz, have called public authorities’ attention to the need to map out and inventory the marine life off the Brazilian coast and its role in promoting national socioeconomic development. When it comes to non-living resources, with the growing demand for metals and minerals and rising prices for these materials, interest in knowing more about the resources in the deep sea and explore what is economically viable is surging.¹⁴³

The 2005 Marine Resources Policy was the embryo for the scientific programs associated with the exercise of Brazilian jurisdiction at sea. The set of policies, programs and actions coordinated by CIRM—analyzed *supra*—benefits, mainly, scientific knowledge of the marine environment, its preservation, the rational use of its resources and the training of qualified human resources. Of the groups of actions and plans set in motion under the Marine Resources Policy framework, two have not been mentioned thus far, which relate intimately to scientific research and an enhanced comprehension of the Brazilian waters: the projects for managing the São Pedro and São Paulo Archipelago—PROARQUIPÉLAGO—and the Archipelago of Trindade and Martin Vaz—PROTRINDADE.

Both Archipelagoes are of a volcanic nature and were uninhabited until the launching of the aforementioned projects, the objectives of which are to inhabit key islands in both Archipelagoes for the purpose of enhancing scientific research in the Atlantic region. Parallely, the projects are also meant to adjust both island formations to the regime of islands prescribed in Art. 121 UNCLOS.¹⁴⁴ In the PROARQUIPELAGO, for instance, the CIRM initiated in 1996 a scientific project aimed at keeping permanently at least four Brazilian researchers in a research station on the Belmonte Island, so as to enable those scientists an *in-situ* lab for researching, sampling, analyzing marine fauna and flora, as well as currents patterns, oceanic

¹⁴²*Id.* 106.

¹⁴³Martins (2007), p. 267.

¹⁴⁴For more on the legal status of the São Pedro and São Paulo Archipelago, *see* generally Ventura and Mello Filho (2020) Forthcoming.

strain factors, etc. Up to now, the Actions PROARQUIPELAGO and PROTRINDADE have achieved, in view of the Brazilian authorities, considerable scientific data production with significant results and direct impacts on the sustainable optimization of food supply chains, generation of employment and elevated income in various segments of the Brazilian society. In addition to that, the Actions are also credited with having developed technological know-how on system-building in inhospitable areas, as well as on clean energy production and logistic support capacity for long distances.¹⁴⁵

Those are but a few examples of how the principled management of the Blue Amazon, with a focus on instrumentalizing the region towards the technological advancement of Brazil and the enlarged understanding of ocean dynamics, can prove beneficial to the country. The question remains, though, whether such instrumentalization of the Blue Amazon respects internationally accepted environmental standards and rules or whether local excitement with the benefits of the immense ocean obfuscate the quest for a truly sustainable, in the sense of environment-friendly, management of the zone.

9.2.3.4 Environmental Dimension

Hence, on the environmental dimension, it is the case to assess whether Brazil is making use of its “right-duty” to manage continental shelf resources in accordance to UNCLOS and other internationally assumed commitments on the conservation of marine spaces under national jurisdiction. Key strategic topics of Brazilian ocean policies usually include, at least in paper, (i) *maintaining* biological diversity; (ii) *reconciling* competing interests in marine and coastal areas; (iii) *investing* in sustainable activities; and (iv) *sharing* benefits from the use of marine genetic resources in a fair manner, all that through cooperation with other countries and multilateral forums. Furthermore, the environmental conservation dimension of the Blue Amazon is not left aside in theorization efforts embraced by Brazilian political strategists, though it is also not given much of a relevance either.

In addition to the defense and economic facets of the “Brazilian seas”, the *Marinha do Brasil* also highlights the biodiversity richness of the Blue Amazon. High-ranking Navy officials appraise the “Brazilian marine territory”¹⁴⁶ as critical for climate regulation, absorption and gradual release of heat, process of nutrients, thus contemplating a wide range of services, mineral reserves and food that benefit a large part of the coastal population. A possible reason for such concern is that, for the Brazilian Navy, both environmental and security considerations go hand-in-hand.

¹⁴⁵Viana et al. (2009), p. 22.

¹⁴⁶Letter of Admiral Ilques Barbosa Júnior, as to the festivities of the National Day of the Brazilian Blue Amazon, 16 November 2017, available online. As mentioned elsewhere, the expression is misleading from a strictly legal perspective, but is employed in the context of international relations’ documents and writing of the Brazilian Navy officials.

The phenomenon of combining defense and environmental preoccupations under one roof has been studied by Ikeshima, to whom the BRICS countries (Brazil, Russia, India, China and South Africa) have awakened to a sense of maritime security, while looking after the sustainable exploitation of marine resources.¹⁴⁷

In Brazil, an illustration of such combined efforts is the design of the *Blue Amazon Management System* (SISGAAZ), for the permanent monitoring of waters under national jurisdiction for all sorts of purposes, including defense and environmental conservation ones.¹⁴⁸ The SISGAAZ was created by Decree no. 12.598/2012. Although the Program’s name includes the phrase “Blue Amazon”, the SISGAAZ covers the Brazilian jurisdictional waters and the international waters under the country’s responsibility for search and rescue operations. However, the system experienced significant hindrances, mainly related to investment cuts, which prevents forecasts of an implementation date. In fact, up to now, only the stage of designing the Program was concluded, with the remaining two stages—contracting and developing the system—halted until further ado. Another example are the country’s marine protected areas, which can also be designed to serve both ways, thus keeping maritime powers away from conservation zones.¹⁴⁹

Yet, until now, most of the programs and plans for the integrated management of coastal and marine environments have been directed mainly to the prevention of degradation of strictly coastal environments.¹⁵⁰ It is undeniable that coastal ecosystems, such as mangroves and shallow reef corals, are under significant stress due to pressure from multiple sources like land- and port-based pollution, excessive tourism, continental shelf mining and exploitation activities. Those are reasons strong enough for having conservation efforts of coastal areas given priority, what does not mean, however, that the rest of the marine environment under national jurisdiction, namely deep-sea ones, should be neglected. Integrated management policies and laws for the ocean owe their effectiveness to the holistic thinking of the marine environments, as has been highlighted in previous studies.¹⁵¹ When it comes to deep-sea activities, the popular motto of “out of sight, out of mind” should be fought vehemently, as the continental shelf and the Area are prone to be the last frontiers of anthropogenic economic exploitation.

Another problem identified in this research refers to the link forced by the Brazilian Navy between safety of navigation measures and environmental conservation, a rationale according to which measures taken for increasing navigational

¹⁴⁷Ikeshima (2011), p. 7.

¹⁴⁸See Düring (2015) online.

¹⁴⁹Further detail on the Brazilian marine protected areas in Chap. 10.

¹⁵⁰The main environmental objectives within the Blue Amazon relate to: recovering the harmful effects of pollution, revitalizing marine urban areas, valuing the natural landscape, in order to develop new activities, such as ecotourism and environmental education, and to maintain high standards of marine environmental quality. See *Marinha do Brasil, Amazônia Azul, Vertente Ambiental*, available at: <https://www.marinha.mil.br/content/vertente-ambiental>. Accessed 12 April 2020.

¹⁵¹See generally Boyes and Elliott (2014).

safety in the Blue Amazon directly contribute to the environmental conservation of the area. Although that may be true, as measures adopted with respect to controlling vessel-source pollution may also be construed as increasing safety of navigation, one should first define the scope of “navigational safety measures”. By doing so, it is intended to avoid a confusion between both objectives (safety and environmental protection) and worse, the cooptation of ecological concerns by the much specific commandment of navigational safety.¹⁵² For instance, the Brazilian Navy’s website which is dedicated to the environmental dimension of the Blue Amazon clearly emphasizes safety of navigation over any other criterion for the principled environmental management of the Blue Amazon—a somewhat misleading approach. No matter how relevant navigational safety measures may be for the peaceful use and management of the marine spaces under national jurisdiction, that element certainly does not exhaust environmental concerns over marine ecosystems. For that reason, considerations on safe navigation emerge only sporadically in this work, in connection with challenges for the environmental management of the Brazilian Blue Amazon.

Of the variety of maritime spaces calling for environmental protection, this work focuses on the regulation of the continental shelf in light of the expansion of domestic jurisdiction seaward. For Brazil, an extended continental shelf implies not only wealth and geopolitical clout, but also increased duties and responsibilities, what makes it reasonable for the attentive and concerned viewer to expect more conflicts of uses of Brazilian and international maritime zones. In the legal environmental field, attention should thus be paid to upholding substantive and procedural obligations related to the prevention of environmental damage, transboundary damage, preventive actions, protection of the marine and marine environment, precaution, pollution control due to several factors, among other topics, all of which examined in detail in Chap. 10.

Despite the hierarchy between the Blue Amazon’s dimensions, the “lower” status of environmental considerations within the Brazilian interest’s equation does not constitute a hindrance to the current study, but to the contrary, it is yet another motivation for grappling with this topic. In Brazilian academia, works proliferate on the security and geopolitical aspects of the that region, but reduced attention has been dedicated to assessing the adequateness of the Brazilian legal and institutional frameworks to tackle the massive challenge of managing the seafloor of the vast Blue Amazon, while respecting international environmental obligations set out in the law of the sea and environmental legal instruments.

¹⁵²The *Prestige* disaster, in 2003, highlighted the interlink between the topics of safety of navigation and protection of vulnerable ecosystems.

9.2.4 *Benefits and Risks of an Extended Blue Amazon*

To assert jurisdiction over larger portions of the ocean floor, i.e. to expand the “Brazilian Blue Amazon” entails both benefits and risks. On the side of benefits, tangible *economic gains* probably stand out from the rest, given the (not yet fully known) exploitation potential of living and non-living resources of the outer continental shelf, namely deep seabed minerals, hydrocarbons, and sedentary species. One more benefit relates to *foreign policy achievements*, in terms of cooperation bonds with neighboring countries of the South Atlantic Ocean, stemming from the Brazilian ability and willingness to provide technical assistance and consultancy to states currently preparing submissions for the delineation of outer continental shelf limits.¹⁵³

On the side of the risks, the most notable one, according to this work, is having the country ill-suited to manage the extended Blue Amazon both in legal and institutional terms. Usually, works in the field of international relations tend to dismiss legal risks arising from the continental shelf expansion, thus overemphasizing the political turbulence that might emerge from CLCS recommendations and the Brazilian state behavior. While there are certainly several political risks related to the delineation procedure, this work focuses rather on the legal risks and challenges falling upon the Brazilian state regard not the recommendations of the Commission, but the national regulations to manage the marine environment of the extended area.

Besides, weight is also given to the aspects of sovereignty and defense of the Blue Amazon within Brazilian strategical maritime thinking.¹⁵⁴ Even though one recognized dimension of the Blue Amazon concept be the marine environment, few in-depth studies have dwelled in the analysis of the environmental duties and responsibilities falling upon the coastal states with a broad continental shelf—so as to contemplate the “new” reality of having an internationally acknowledged outer continental shelf. Admittedly, a concept frequently employed by the Brazilian Navy to refer to ocean governance, that of “maritime mentality”, binds together both sovereignty and environmental considerations, as it consists of the general

¹⁵³Brazil has shown interest in the past in jointly exploiting continental shelf resources with its adjacent neighbors, Uruguay and Guyana. In Uruguay, for instance, Petrobras expressed interest in the exploration and exploitation of oil and gas on the Uruguayan continental shelf. In Guyana, an official visit of former President Lula indicated that the Brazil would have Petrobras work together with companies from that country to brainwash possibilities for joint operations in oil and gas exploration on the continental shelf. Concerning the French Guyana, Brazil’s cooperation with France began even before the preparation of the proposal for French Guiana was completed. Following the beginning of the examination of the Brazilian proposal by the subcommittee, and taking into account the comments of some of its members, the Brazilian Government sought cooperation from France to establish the points of the foot of the slope in the region of the lateral border. In December 2004, the French authorities agreed to cede GUYAPLAC data, which were included in the addendum sent by Brazil to CLPC in March 2005. See Figueirôa (2014), p. 248.

¹⁵⁴The reference work by Barbosa Júnior and More (2012) evidences the prominence of security considerations over environmental ones.

perception of the importance of the sea and the willingness to use its potential in a sustainable way, thus making such concerns blip on the Navy's radar. In this sense, IUU fishing in jurisdictional waters and marine environmental crimes—clear marine environment-related threats, have been identified as two of the greatest challenges to the Brazilian Navy.¹⁵⁵

However, a maritime mentality alone may not be enough for the effective conservation or sustainable exploitation of marine resources, if the country in question has an ill-suited *legal* and *institutional* framework for implementing adequate environmental standards to the maritime zones under national jurisdiction. The environment-related threats listed by the Brazilian Navy as particularly challenging demand a clear legislative framework, suitable monitoring/enforcement powers and the need to promote increased cooperation between national agencies with some degree of ocean responsibility. For that reason, the next chapter investigates the marine environmental regulatory framework applicable in Brazil, with a focus on the continental shelf. The objective is to assess Brazil's legal adequateness to cater for the sustainable exploitation of the country's continental shelf, as well as the consistency of marine environmental domestic legislation with international binding instruments, particularly UNCLOS and the CBD.

The situation of Brazilian agencies engaged in marine conservation efforts did not look promising in the last years. Since 2014, a domestic political crisis has added to the unfavorable international context, thus shaking Brazilian economics and politics and throwing the country into a calamity that is referred to by scholars as the international "rollback" of Brazil.¹⁵⁶ According to an accurate analysis by Andres Malamoud,

The rise of Vice President Michel Temer to the presidential office, which followed the ousting of Rousseff through congressional impeachment, was the last nail in the coffin of a twenty-year period of international prestige. Not only was Brazil nowhere to be seen when most of the Latin American presidents and several world leaders convened in Colombia to witness the signature of the peace agreement between the government and the FARC, but a few months later Temer declared that he would not attend the 2017 summit of the G20 in Germany due to domestic issues. On the international stage, Brazil no longer bites, nor does it kiss.¹⁵⁷

More acutely, the impeachment of former president Dilma Rousseff, in 2016, and the shift towards an ultraliberal economic model lies also on the roots of the international rollback—the country's economy is in coma and current policies do not register much recovery. The Presidency of Michel Temer approved in Parliament a constitutional amendment to halt public spending to 2015 nominal amounts for the upcoming 20 years. The PEC 241 (Project of Constitutional Amendment) has already limited investment in social programs and cut funds to environmental agencies, taken as less relevant in light of the country's historic problem with

¹⁵⁵Moreira (2017).

¹⁵⁶Malamud (2017), p. 164.

¹⁵⁷*Id.* 163.

urban violence. The Project, nicknamed in Brazil as the “PEC of the end of the world”, was nonetheless approved in the Parliament. As of April 2020, domestic austerity measures and the looming economic crisis expected to follow the pandemic of COVID-19 do not allow for the anticipation of brighter days ahead. Such contingencies not only contribute to Brazil exercising a less relevant role in international fora, but also place enormous challenges to the country’s marine policies.

9.3 Partial Conclusions

Brazil is entangled in a complex web of policies, plans, and concrete actions which enable the environmental governance of its maritime spaces. The general policies—National Maritime Policy; National Policy for the Environment; National Policy for Marine Resources—share common principles and objectives. With respect to marine resources, several other plans have been put in motion under the PNRM umbrella and the CIRM coordination: the quinquennial National Sectorial Plans for Marine Resources; the Brazilian Continental Shelf Survey Plan; and the National Coastal Management Plan. The bulk of those policies, plans and actions conform what could be called a decentralized “Brazilian ocean strategy”.

The balance of those marine environmental governance efforts is a rather difficult one to make, as there are records of successfully implemented actions and neglected ones. Under the quinquennial Sectorial Plans, specific actions have been designed and effectively executed, such as REVIZEE and LEPLAC—the former mapped out the living resources of the Brazilian EEZ and published extensive reports with the main findings. The latter was responsible for collecting massive amounts of data on the Brazilian seabed morphology which grounded the country’s submissions for outer continental shelf limits before the CLCS. Yet, not-so-successful actions also exist, such as REMPLAC—concerned with the detailed evaluation of the mineral potentiality of the continental shelf—a survey program with parallel capability to increase scientific knowledge on the marine environmental features and ecosystems of the Brazilian seabed. Insider information from CIRM members, obtained via interviews, hinted at the likelihood of Brazilian authorities relaunching REMPLAC. Now, under a different work methodology and taking into account the relevance of marine mineral resources to the Brazilian socioeconomic development.

This chapter stressed the relevance of recognizing the complexity inherent to the governance of the oceans. A quick glimpse at the policies, programs, actions and institutions participating in the Brazilian ocean governance reveals the complexity of such a process in the historic era that scientists have agreed to refer to as the “Anthropocene”. Hence, complexity is expected to increase, as new policies are about to come to life, the case of the National Policy for the Conservation of the

Marine Biome (PNCMar).¹⁵⁸ To embrace complicity, in context, does not mean that domestic legal and policy frameworks should be unnecessarily tortuous. In fact, a certain degree of harmony among the policies and laws ought to exist, if the overall governance is to be effective. A too complex ocean governance system is likely to lead to internal conflicts of formal competence, as well as to material contradiction, consequences which are to be avoided by every policy- and law-maker.

Regarding the Brazilian Blue Amazon, environmental conservation efforts are not left aside in theorization efforts of Brazilian political strategists, though it is also not given much of a relevance either. Overall, there are praises and criticisms to be made to the “Brazilian ocean strategy”. Predominantly, the national policies (in particular the PNRM) have been serving the interests of the Brazilian society. They are responsible for initiating an ongoing process which has lasted for almost 40 years, expected to continue for many years more. Much has been achieved, but there is still much work to be done.

Besides, there is strong need for Brazilian authorities to improve domestic *coordination* within such a complex web of plans and programs, which is expected to become difficult by the day, thus adding more pressure to the work of the CIRM. Another obstacle to effective policies is posed by recent budgetary cuts to environmental agencies, including those tasked with monitoring the oceans. Despite the afore-mentioned marine riches under Brazilian jurisdiction, it is hardly disputable that insufficient funds to marine scientific research will hamper increased knowledge of the shelf and harden the drafting of environmentally sound exploration and exploitation strategies.

In addition to that, one should warn against the lack of or insufficient follow-up reports on the actions and objectives set out in each Action set out in different PSRMs, as REMPLAC or REVIMAR. The CIRM’s website is not updated, as of April 2020, and several Actions contain several years-old reports.¹⁵⁹ The same situation was identified at the IBAMA website with respect to statistics on fisheries off Brazilian waters, the latest having been published in 2007.¹⁶⁰ That situation is beyond worrisome, what brings to surface yet another challenge to Brazilian marine environmental governance efforts. Communication and dialogue between public

¹⁵⁸The National Policy for the Conservation and Sustainable Use of the Brazilian Marine Biome is currently under discussion in the Brazilian Parliament, under the proposed Bill no. 6.969/2013. The draft bill recognizes that “the oceans are suffering the impact of human action, as overfishing, pollution and acidification” and closes with the objective of “providing the country the ability to respond to climate change and ocean acidification providing mitigation measures and adaptation”. That document, if passed by the Parliament, will be proof of Brazil’s concern with climate change impacts on the marine environment, and represents a significant step towards special legislation on key threats to ocean health off the Brazilian coast.

¹⁵⁹Navigation on the CIRM website is far from intuitive, with important actions and plans (such as the REMPLAC, BIOMAR and others) lacking follow-up reports and info on results or impacts of each measure. Available at: <https://www.marinha.mil.br/secirm/> Accessed 12 April 2020.

¹⁶⁰The criticism formulated herein may be confirmed at the following webpage: <https://www.ibama.gov.br/biodiversidade-aquatica/gestao-pesqueira/estatistica-pesqueira>. Accessed 12 April 2020.

authorities and the population ought to be enhanced, especially if one is to inform stakeholders about the objectives, actions and the consequences of all policies. That is a major challenge, as the specialty and technicality of public discussions may drive out crucial stakeholders and the population at large, a consequence that would irreparably crack the objective of developing a “maritime mentality” in Brazil. Only when Brazilians learn to treasure domestic ocean policies, will public authorities prioritize the sustainable management and conservation of the oceans, thus enabling the federal and state administrations the means and the financial resources necessary to achieve it.

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