MARIPOLDATA

BRAZIL

Brazil is a country with strong interests in ocean issues. Its Exclusive Economic Zone encompasses 4.5 million km2 - called the Blue Amazon (Amazonia Azul) - which equals over 50% of the country’s land surface. Its waters are governed by the Maritime Authority, that, in the Brazilian case is the Navy. The Navy also coordinates the Brazilian Interministerial Commission for Sea Resources (Comissão Interministerial para os Recursos do Mar - CIRM) which was established in 1974 and gathers Ministries and other Federal Government representatives with responsibilities on marine activities, from research to exploration. CIRM coordinates a series of Government programs, including the Antarctic Program, the Area Program, the evaluation of the Continental Shelf Extension, but also capacity building and [<a href="](https://www.frontiersin.org/articles/10.3389/fmars.2020.614282/full) https://www.marinha.mil.br/secirm/"> literacy actions</a>. CIRM facilitates the coordination of the multiple and fragmented marine policies in Brazil, by bridging Government stakeholders. Among these policies, the National Policy for Marine Resources (PNRM – Política Nacional para os Recursos do Mar) is particularly important to CIRM, who is responsible to discuss, elaborate and implement the Sectoral Plans (PSRM – Plano Setorial para os Recursos do Mar) set by the PNRM. These Plans are approved by the Brazilian Presidency and establish the goals and means to conduct a series of programs at sea, being renegotiated every four years.

In the current 10th version of PSRM (2020-2023) [1], marine scientific research is deemed critical to all programs. One of such programs deals with Marine Biotechnology, coordinated by the Ministry of Science, Technology, and Innovations (MCTI), who has also established a National Research Network in Marine Biotechnology (BiotecMar)[2] and is now running a Science at Sea Program [3]. The Ministry of Education leads the Executive Committee for the Consolidation and Expansion of Research Groups and Graduate Program in Marine Sciences (PPG-Mar) with "human resources capable of helping Brazil to develop scientific and technological research capacities, to promote the sustainable use of resources in national and international waters" [4]. The Brazilian Navy counts with 11 research vessels [5], the newest of which was unveiled in 2015, being one of the most modern in the South Atlantic [6]. In the last years, PPG-Mar and the Ministry of Education acquired further 4 research training vessels (named Ciências do Mar I-IV) handed directly to central universities responsible for coordinating training expeditions among all universities in their regions in Brazil - Universidade Federal do Rio Grande (FURG) in 2017, for the South region, Universidade Federal do Maranhão (UFMA) in 2018, for the North region, Universidade Federal Fluminense (UFF) in 2019, for the Southeast region and Universidade Federal de Pernambuco in 2020, for the Northeast region.

14 universities in Brazil have specialized oceanography departments or institutes, among which the two most traditional: the Oceanographic Institutes from the Universidade of São Paulo (IOUSP), and from the Universidade Federal do Rio Grande (FURG).

In 2019, there were at least 49 undergraduate courses related ​​Marine Sciences, which together accounted for 2,896 new students. These numbers do not yet reflect courses that deal with the socio-cultural elements of the marine and coastal environments. Moreover, until 2019 there were at least 32 postgraduate programs predominantly producing thesis in Marine Sciences. In 2020 these programs offered around 500 places for master's courses and 230 for PhD students.

Sources:

[1]<br><a href=”http://www.planalto.gov.br/ccivil\_03/\_ato2019-2022/2020/decreto/D10544.htm" </a></br>

[2] <br><a href=” https://doi.org/10.3389/fmars.2018.00236">

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[3] <br><a href=" https://www.in.gov.br/en/web/dou/-/portaria-mcti-n-4.719-de-5-de-maio-de-2021-318198749"</a></br>

[4] <br><a href=" https://cienciasdomarbrasil.furg.br"</a></br>

[5] <br><a href="<https://www.marinha.mil.br/meios-navais>"</a></br>

[6] <br><a href=”https://doi.org/10.1126/science.349.6248.573">

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[7] <br><a href="http://www.uff.br/?q=noticias/06-11-2018/navio-escola-da-uff-ampliara-desenvolvimento-tecnologico-nas-ciencias-do-mar"</a></br>

[8] <br><a href="<https://tapioca.ird.fr/embarcacao-ciencias-mar-iv-chega-neste-semestre-ao-porto-recife>"</a></br>