

**CARRO PITARCH, María, *Los recursos genéticos marinos de las zonas fuera de la jurisdicción nacional: Un antes y un después en su régimen jurídico a la luz del Acuerdo BBNJ*, Tirant Lo Blanch, Valencia, 2025.**

With the imminent entry into force of the Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ Agreement), this monograph becomes a necessary reference for approaching the complex subject outlined in its title, “*Marine genetic resources in areas beyond national jurisdiction: A turning point in their legal regime in light of the BBNJ Agreement*,” from the multiple perspectives required to address it. Life in the oceans is in danger as a result of human activity, and this work addresses one of its most challenging problems: the legal regulation of marine genetic resources. The author, María Carro Pitarch, has been driven by her passion for this subject to embark on an epic journey through the oceans and the international regulatory framework that should preserve them in the face of so many threats that endanger their very existence. As an adaptation of her doctoral thesis, the work presented here involved choosing a topic of enormous complexity, because the debates on its scientific and legal contours are not over, but rather extend into the future. As a result, we have a work that is meticulous in its form and profound and accurate in its analysis of a complex regulatory framework, which is always fragmented and always growing, driven both by scientific knowledge and by the applications to which it has been put in order to exploit marine areas beyond national jurisdiction. The author’s starting hypothesis is simply that “the current regulatory regime has significant regulatory gaps that the BBNJ Agreement aims to fill, albeit with some deficiencies inherent in the process of adopting international treaties” (p. 24). To verify this hypothesis, the author embarks on five major chapters.

The first chapter, on *Marine Genetic Resources in Areas Beyond National Jurisdiction*, sets out the parameters for the scientific study of its subject matter, anticipating all the terms that are or should have been introduced in Article 1 on the terms used in the new BBNJ Agreement. This Article 1, as was the case with the Convention on Biological Diversity whose article 2 replicates its successes and mistakes has brought us the result of an ongoing conflict that has provisionally ended with the vagueness of many of the terms used, notably that of marine genetic resources. Therefore, given the legal vagueness, it was necessary to present marine biodiversity, and in particular marine genetic resources, with great rigor and precision from a scientific point of view, because “the definition enshrined in the CBD and in the BBNJ Agreement fails to precisely delimit the scope of the notion of marine genetic resources. There are two realities whose integration into the definition of ‘Marine Genetic Resources’ still raises debates at the international level: derivatives and digital information on genetic resource sequences (IDS).” For this reason, the author presents in exquisite detail the controversial subject she addresses in the following chapters on the legal analysis of the negotiation process and the results achieved in the BBNJ Agreement.

In the second chapter on *The international legal regime governing marine genetic resources in areas beyond national jurisdiction*, the author analyzes a sectoral and fragmented regulatory regime resulting from its not always harmonious composition based on the two major regimes of international law of the sea and international environmental law, with the United Nations Convention on the Law of the Sea (UNCLOS), the Convention on Biological Diversity (CBD) and its Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization, which are the pillars that, as she points out, “form the basic framework on which the process of negotiation and adoption of the BBNJ Agreement has been based” and which will enable her to evaluate the new regime of the BBNJ Agreement (p. 70). Of particular relevance is her analysis of the complex relationship between the principles of both regimes governing marine areas beyond national jurisdiction: that of the Common Heritage of Mankind and the principle of freedom of the seas and, in particular, the principle of universal use, which subsumes freedom of marine scientific research. Following her examination, this chapter concludes with a section on *The international legal limbo of marine genetic resources in areas beyond national jurisdiction*, which highlights the existing gaps and provides a necessary reference point for addressing the challenges of the BBNJ Agreement negotiation and adoption process in chapter 3.

*A long road to the adoption of the BBNJ Agreement* is the title of the third chapter, which documents and analyzes in great detail not only the negotiation process of the Agreement but also the institutions that made it possible with the mandate set out in Resolution 69/292 of the United Nations General Assembly (UNGA), which stipulated that the negotiation process should not “detriment to existing legal instruments and frameworks and competent global, regional, and sectoral bodies” nor should it “affect the legal situation of those who were not party to UNCLOS or other related agreements” (p. 135). The author presents the progress and outcome of the negotiation process with its various drafts, in which multiple solutions were considered. The diversity and number of these solutions are the subject of a detailed analysis through various tables that facilitate understanding of the process in which some were rejected and others accepted. Certainly, it is worth highlighting the author’s view of the place of marine genetic resources as one of the most controversial points in the process for the adoption of the Agreement within the Package Deal formula that was adopted by the various intergovernmental conferences following the adoption of UNGA Resolution 72/249. The search for an elusive consensus is what emerges from a careful examination of the five IGCS, in which marine genetic resources are a major challenge.

Chapters four and five deal directly with marine genetic resources, and the author proposed in her thesis that they be read together because they move from the generic to the specific, so that the general nature of chapter four is concretized with regard to resources in chapter five. Thus, in the monograph, chapter four examines the general provisions of the BBNJ Agreement, its preamble, the overall objective, and the guiding principles that will serve to understand the regime outlined in chapter five.

Chapter four is much more than a study of the *Intersectoral Provisions of the BBNJ Agreement with a key impact on the marine genetic resources regime*. It contains several chapters in itself, insofar as, after presenting the Agreement and its general objective, it focuses on the major systemic and specific principles applicable to marine genetic

resources. First, it analyzes the general objective as the “ultimate safeguard against interpretative inconsistency.” It then delves into the analysis of the specific objectives of Part II of the Agreement on Marine Genetic Resources to highlight the unresolved conflicts over “the alleged dichotomy between conservation and sustainable use” and also those raised by the specific objectives themselves insofar as they could “distort the overall objective” because “this division of objectives, which may have been useful when negotiating the different parts separately, has the potential to generate conflicts when implementing the Agreement, either because they contradict each other or because they create an order of priority among them” (p.199). These objectives, which are a) fair and equitable sharing of benefits, b) capacity building and marine technology development and transfer, and c) generation of knowledge, scientific understanding, and technological innovation, are analyzed before moving on to the study of the scope of the Agreement and its exceptions. The last three sections of Chapter four could have constituted a separate chapter on principles, divided into a first part on “The relationship of the Agreement with other instruments, frameworks, and bodies: The feared shall not undermine or prejudice”; a second on the principles applicable to “The dispute underlying the new regime: between the Common Heritage of Humanity and the Principle of Freedom”; and a third on the “General Approaches and Principles of the Agreement.”

The fifth chapter on “The new regime for the sustainable use and conservation of marine genetic resources in areas beyond national jurisdiction” addresses the most critical part of the work by examining “The new regime in light of the legal loopholes found in Chapter II, taking into account not only the provisions of the legal instrument, but also what was eliminated in the context of the negotiations that gave rise to it.” In this way, her reflection sheds light on the final result in which, as has already happened in other conventions, a high price is paid for consensus, that of “constructive ambiguity,” which the author explores in all the chapters. As with the fourth chapter, this fifth chapter could have been several chapters, insofar as its sections are so substantial and its analysis so complex that they have their own identity. The first of these sections, on “The scope of application of the provisions relating to activities concerning marine genetic resources and digital sequence information,” addresses precisely the geographical, temporal, and material analysis, allowing the reader to see the contributions made by the Agreement with respect to UNCLOS and the CBD and the other conventions with which it interacts. The second section refers to “Activities relating to marine genetic resources and digital information on their sequences” and, after defining them, studies the guiding principles for carrying out such activities, which are the Agreement’s real contribution in the field of marine genetic resources. Their future application and enforcement will be the great challenge to be overcome by the Agreement and the institutions responsible for it. This is dealt with in particular in the third section on “The implementation of an access and benefit-sharing regime,” which will undoubtedly be the subject of future reflection on its implementation or lack thereof, given the difficulties in identifying the “triggers” of the distribution mechanism. The fourth section characterizes “Notification and deposit as obligations associated with activities related to marine genetic resources.” The fifth section analyzes what is perhaps the most prodigious achievement of the Agreement: “Fair and equitable sharing of the benefits arising from activities related to marine genetic resources,” and her study leads us to consider not only its conception as “a component of the Common Heritage of Humanity within the framework of the new international

economic order" but also its translation into practice, which will test the strength of the commitments made and the mechanisms provided for this purpose, such as the Agreement's financing mechanism and the institutional arrangements for the benefit-sharing regime, with the Access and Benefit-Sharing Committee and the Conference of the Parties as the main protagonists. The sixth section addresses the complex system of oversight and transparency in great detail and raises issues that may be the subject of future work when the planned mechanisms are put into operation. The last two sections address topics that could themselves be the subject of a doctoral thesis or the embryo of new monographs. Thus, the seventh section studies "The traditional knowledge of Indigenous Peoples and Local Communities associated with marine genetic resources" and the eighth deals with "A notable absence: Intellectual property rights over marine genetic resources."

The lengthy process of adopting the *Agreement under the United Nations Convention on the Law of the Sea relating to the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction* has left States exhausted and unwilling to address new conventional solutions when new social needs arise. Perhaps this is one of the most unexpected side effects. Another is the certainty that what has not been agreed upon will define the future of the BBNJ Agreement, for example, in the case of IDS – digital information on genetic resource sequences – which has yet to be defined. Therefore, the final conclusions will serve as coordinates for anticipating the challenges of the imminent entry into force of the Agreement and its implementation. The author seems committed to this issue going forward, because it "presents and will continue to present complex and significant challenges" in each of its components and because of the links created between the regulatory regimes that have converged to establish the sustainable use of marine genetic resources as the main objective over the conservation one. We can only wish this BBNJ Agreement success and trust that States will honor their commitments to it and its principles, and that the author will maintain her passion for continuing to offer us her invaluable analysis.

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