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Implementation of the BBNJ Agreement: A general overview and Turkish perspective

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Abstract

This article explores the key innovations introduced by the Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (BBNJ Agreement). It focuses on the four main pillars of the Agreement: access to and benefit-sharing of marine genetic resources, area-based management tools (ABMTs), including marine protected areas, environmental impact assessments, and capacity building and the transfer of marine technology. It analyses how these mechanisms contribute to the sustainable use and conservation of marine biodiversity in areas beyond national jurisdiction (ABNJ), while also addressing the legal, institutional, and practical challenges surrounding their implementation. Special attention is given to the issue of equity, particularly about the fair and inclusive sharing of marine genetic resources. In this context, Türkiye's non-party status to the United Nations Convention on the Law of the Sea (UNCLOS) and its implications for Türkiye's potential engagement with the BBNJ framework are examined. This study also gives focus to the potential and challenges of the BBNJ Agreement in fostering a more collaborative and inclusive governance system for the high seas.

Keywords: BBNJ Agreement, marine biodiversity, UNCLOS, marine genetic resources, area-based management tools, environmental impact assessments, capacity building, marine technology transfer

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Introduction

The President of the 1982 United Nations Conference on the Law of the Sea described the UNCLOS as "*a comprehensive constitution for the oceans which will stand the test of time*" (Anderson 2007). The UNCLOS subsequently entered into force on 16 November 1994. Several scholars described the UNCLOS as the

new constitution of the ocean and the famous "package deal" that addressed many topics that preceding agreements had missed (Oxman 1996; Nguyen 2021). It offered new concepts and organizations and, most importantly, Part XII created the first international legal framework for protection of marine environment. Although it was established with the aim of comprehensively governing all matters related to the ocean at the time of its adoption, it would be unrealistic to expect it to regulate every aspect of the law of the sea in a detailed and exhaustive manner. In this context, especially in light of the technological advancements of the 21st century, it would be accurate to state that the UNCLOS provides a comprehensive framework for the governance of the ocean and their resources; however, due to certain regulatory gaps, it cannot be considered as fully effective instrument for addressing all aspects of the law of the sea (Nguyen 2021).

The legal framework governing ABNJ, aside from the relatively established structure for the Area, constitutes a notable gap in the UNCLOS, especially concerning the protection of marine biodiversity in those areas (Oude Elferink 2019). The UNCLOS cautiously governed the regime of the Area and its resources, while it structured the regime for the high seas based on Grotius' principle of "*freedom of the seas*". This approach acknowledges that, while the UNCLOS established a well-defined general framework, several gaps remained unaddressed for the ABNJ. Most regional environmental instruments focus exclusively on waters within national jurisdictions, leaving the ABNJ largely unregulated (Oude Elferink 2019). Coordination among the various sectoral and regional bodies responsible for these areas remains limited. Additionally, there are no detailed legal obligations specifically addressing the conservation of biodiversity, equitable access and benefit-sharing of marine genetic resources, environmental impact assessments, or the establishment of marine protected areas in ABNJ. The BBNJ Agreement aims to fill these gaps by providing a clearer, more cohesive, and integrated framework.

Briefly, while both the UNCLOS and the BBNJ Agreement are vital frameworks for ocean governance, they differ in scope and approach. The former provides a comprehensive legal structure covering all aspects of ocean use across all maritime zones, whereas the latter focuses specifically on environmental protection and biodiversity conservation in ABNJ (Wang 2025). Although the UNCLOS includes provisions on the protection of the marine environment, it does not directly address biodiversity and mainly regulates the use and conservation of resources such as fisheries and seabed minerals. In contrast, the BBNJ Agreement places biodiversity at its core, introducing specific measures for the establishment of marine protected areas, environmental impact assessments, and benefit-sharing mechanisms for marine genetic resources (Lothian 2023a). In this sense, the BBNJ Agreement covers an important gap in international law by focusing mainly on these topics.

The BBNJ Agreement was adopted by the 193 member States of the United Nations in June 2023 following nearly two decades of difficult negotiations. At the conclusion of the third UN Ocean Conference, 50 States (or governments) ratified the Agreement, with other parties committing to do so, bringing the Agreement closer to the 60 ratifications required for it to enter into force. The BBNJ Agreement will come into force after 120 days following the ratification, acceptance, approval or accession of the 60 States[1].

The adaptation of the BBNJ Agreement fulfilled some gaps in international law while also raising a couple of new questions, such as its relation with other existing relevant legal instruments. UNGA Resolution 69/292 provides that the BBNJ process should "*not undermine existing relevant legal instruments and frameworks and relevant global, regional and sectoral bodies*" (UNGA Res. 2015). The *'not undermining*' principle is a crucial element of the BBNJ Agreement, guaranteeing that it does not interfere with the purposes of existing frameworks (Tang 2024). The "not undermining" principle has found its way to the text of the BBNJ Agreement in Article 5 by indicating the coherence and coordination with those instruments, frameworks, and bodies. The wording of this principle has sparked debates among scholars regarding its scope. However, the wording 'not undermining' is not a reference to a total detachment between the BBNJ Agreement and the existing legal instruments, nor does it imply that the BBNJ Agreement will have no impact on them (Wang 2025). The BBNJ Agreement must not undermine existing frameworks, emphasizing the need for cooperative relationships among existing frameworks to enhance governance (Langlet and Vadrot 2023). This principle should be understood as strengthening the objective and collective interest (Scanlon 2018).

The BBNJ Agreement should be perceived not as a constraint, but as an instrument to enhance and strengthen current global, regional, and sectoral bodies in their compliance with the UNCLOS commitments to safeguard the marine environment. It emphasizes the necessity for improved consultation and collaboration by incorporating biodiversity, ecosystem-based, and precautionary approaches into these frameworks and strengthening national and regional capacity. Such measures are crucial in preventing damage from specific industries and guarantee that existing instruments are not undermined by unregulated or illicit activities (Gjerde *et al.* 2019).

This article offers a brief examination of the historical development and negotiation process of the BBNJ Agreement, with a particular focus on the legal and practical gaps it seeks to address within the framework of existing binding instruments, most notably the UNCLOS. By situating the Agreement within the

[1] Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity in Areas beyond National Jurisdiction (New York, 19 June 2023, not in force) UN Doc A/CONF.232/2023/4 (19 June 2023) [BBNJ Agreement], Art. 68.

broader landscape of international ocean governance, this article assesses its anticipated contributions to the protection of marine biodiversity in ABNJ. It explores the core principles underpinning the BBNJ Agreement, the expectations it has generated, and the legal and institutional innovations it introduces. Moreover, it considers how the BBNJ Agreement is intended to complement, rather than replace, existing legal regimes, and how this interplay may shape future implementation. While the negotiations extended over two decades, this work aims to illuminate the new chapter initiated by the Agreement's adoption in June 2023, a chapter that, if successfully realized, could mark a transformative moment in the governance of marine biodiversity beyond national jurisdiction.

I. The negotiation journey behind the treaty

The negotiation process for the BBNJ Agreement is categorized into three distinct phases: the Ad Hoc Open-ended Informal Working Group (2004–2015), the Preparatory Committee (2016–2017), and the Intergovernmental Conferences (2018–2023). In 2004, the United Nations General Assembly (UNGA) established the BBNJ Working Group pursuant to General Assembly Resolution 59/24 to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction. In 2015, it initiated the process of developing an international legally binding instrument on the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction. Within this framework, a Preparatory Committee was established and convened four times between 2016 and 2017 to present its recommendations to the General Assembly. The process continued with the adoption of General Assembly Resolution 72/249 in 2018, which established an Intergovernmental Conference (IGC) and launched formal negotiations. The objective was to finalize, within a short period, a legally binding instrument under the UNCLOS concerning the conservation and sustainable use of marine biodiversity in ABNJ[2]. As a result, following decades of preparatory work and negotiations, States adopted the text on 3 March 2023 by consensus. During the negotiations, States have reached an agreement on various issues, including four substantive elements such as marine genetic resources and benefit-sharing mechanism, marine protected areas and area-based management tool, environmental impact assessments, capacity building and technology transfer.

II. Utilization of marine genetic resources

Part II of the BBNJ Agreement sets forth a comprehensive legal framework governing the utilization and benefit-sharing of marine genetic resources, including associated digital sequence information and traditional knowledge in ABNJ[3]. This section is widely regarded as both innovative and ambitious in its

[2] UNGA Res 72/249 (19 January 2018) UN Doc A/Res/72/249. Avaliable at <https://docs.un.org/en/a/res/72/249> (accessed 3 July 2025).

[3] Convention on Biological Diversity, opened for signature 5 June 1992, 1760 U.N.T.S. 79 entered into force 29 December 1993 and Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (Nagoya Protocol), opened for

approach as a result of the most contentious negotiations of drafting the BBNJ Agreement. Part II of the BBNJ Agreement mainly contains the guiding principles of this part, activities regarding the marine genetic resources in ABNJ, the notification process, monitoring and transparency and modalities of the benefit sharing mechanism and establishment of Access and Benefit Sharing Committee. Upon closer examination, however, it becomes evident that many substantive provisions remain to be elaborated in the implementation phase at both national and international levels. This section attempts to examine the current regime of the BBNJ Agreement while raising questions about its future implementation in terms of guiding principles of this part, intellectual property, benefit sharing mechanism, compliance, monitoring and the clearing house mechanism.

A) Marine Genetic Resources

Marine genetic resources and associated digital sequence information are of growing interest in terms of their scientific, commercial and industrial value, as with the technological advancement, especially the emergence of biotechnology and recent knowledge of deep-sea ecosystems (Vierros *et al.* 2015). Therefore, the exploration and exploitation of these resources in ABNJ may become a key driver of blue economy practices, and attract heightened attention from the scientific community (Scovazzi 2020).

During the negotiation of the UNCLOS, States focused on future-oriented issues such as the legal regime for deep-sea minerals located in the Area, but due to limited knowledge of marine genetic resources at the time, no specific regime was developed for the utilization of these resources but no intention to exclude non-mineral resources found in ABNJ from application of common heritage of mankind principle (Taghizadeh 2025). However, access to those resources has been frequently interpreted as part of the high seas freedoms, given the non-exhaustive nature of these freedoms and the absence of a benefit-sharing mechanism (De Lucia 2021). In a scenario of utilization of marine genetic resources and associated digital sequence information is part of the freedom of high seas, States and their actors lacking sufficient economic capacity and technological advancement to undertake such endeavours would miss out on the benefits to be derived from the discovery of new species, genes and adaptations and access to scientific research into marine genetic resources (Lothian 2023b). By introducing a regime for the sustainable use of these resources, it aims to

signature 29 October 2010, [2012] ATNIF 3 (entered into force 12 October 2014) draw the legal regime of utilization of marine genetic resources and digital sequence information within national jurisdiction. During the BBNJ negotiations, these frameworks were frequently referenced during discussions on Part II of the BBNJ Agreement. Despite the differences in the geographical scopes of the respective agreements, the importance of harmonizing practices was emphasized in order to minimize duplication and confusion, particularly given that same genetic resources are found both within and beyond national jurisdiction,

ensure equitable sharing among developed and developing nations while maintaining a delicate balance that fosters the private sector in this area[4].
Marine genetic resources are defined as *"any material of marine plant, animal, microbial or other origin containing functional units of heredity of actual or potential value"* (BBNJ Agreement Art 1.8). Unless explicitly included under the BBNJ Agreement, fish and other living marine resources harvested through fishing activities in ABNJ fall outside the scope of the Agreement (BBNJ Agreement Art. 10(2)).While the previous version of the draft agreement contained a definition of digital sequence information referring to the Convention on Biological Diversity, the adopted version of the Agreement refrained from making a definition of such information (Taghizadeh and Asgarian 2024). Access to marine genetic resources no longer necessarily requires physical collection; advancements in technology have substantially reduced the reliance on physical samples, thereby generating new debates and complexities (Scholz *et al.* 2022). Notably, the utilization of this information often complicates the identification of the origin of genetic material, whether it originated from ABNJ, and the evaluation of benefits derived from its use, thereby potentially allowing actors to evade the effective implementation of the benefit-sharing principle enshrined in the BBNJ Agreement (Krabbe and Langlet 2024).

B) Utilization Process of Marine Genetic Resources

All States Parties and their nationals are entitled to access and utilize marine genetic resources and associated digital sequence information (BBNJ Agreement Art. 11(1)). This includes entities such as research institutions and commercial actors involved in the collection, use, storage and transfer of biological samples in ABNJ, as well as those generating or utilizing digital sequence information derived from such resources. All such activities fall within the scope of the utilization regime established under the BBNJ Agreement.

During the BBNJ negotiations, extensive discussions were held concerning the guiding principles that would underpin the Agreement, particularly for the utilization of marine genetic resources and their associated digital sequence information. A key point of contention emerged between the principles of the freedom of the high seas and the common heritage of mankind. Most developed States advocated for the primacy of high seas freedoms, whereas many developing States, notably those within the Group of 77 supported the inclusion of the common heritage of mankind for the marine genetic resources. This divergence persisted throughout the negotiations and was revisited even during the final stages of the resumed fifth session. Ultimately, in an effort to achieve consensus, both principles were incorporated into the Agreement as part of its guiding framework, reflecting a compromise (BBNJ Agreement Art.7). This

[4] Sustainable use within the scope of the BBNJ Agreement means "using the components of biological diversity in a manner and at a rate that will not cause a long-term decline in biological diversity, thereby aiming to maintain its potential to meet the needs and expectations of both current and future generations".

duality, however, brings many questions, fore and foremost is that whether and what extent the common heritage of mankind principle is applicable in utilization of marine genetic resources under the BBNJ Agreement. Some may argue that, through literal interpretation, BBNJ Agreement states that "*common heritage of mankind principle will be applicable which is set out in the UNCLOS*", so according to the UNCLOS, this principle is only applicable for deep seabed minerals in the Area and finally this principle will not be applicable for utilization of the marine genetic resources under the BBNJ Agreement. This interpretation is not acceptable. The term "*set out in the UNCLOS*" refers to the extent and the frame of the common heritage of mankind principle, not the sole applicability of the mineral resources (Gottlieb *et al.* 2025). Even the common heritage of mankind regime under the UNCLOS can be interpreted in a way that includes marine genetic resources in the Area. This approach based on literal interpretation also will not produce desired outcomes of most of the negotiating States at that time. This question can be answered not only by literal interpretation, but also by historical and meaningful interpretation. Indeed, Article 31 of the 1969 Vienna Convention on the Law of Treaties supports this argument. According to this provision: "*A treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and the light of its object and purpose*". A good faith interpretation of the Agreement also would support the principle of common heritage of mankind (Taghizadeh 2025). Furthermore, the benefit-sharing mechanism established for the utilization of marine genetic resources and associated digital sequence information under the BBNJ Agreement reinforces the relevance of the common heritage of mankind principle. No one can claim sovereignty and sovereign rights over these resources and activities, which could only be for peaceful purposes, and should benefit all humankind, and these resources must be utilized for peaceful purposes. So rules set out for this part on non-appropriation[5], benefit-sharing, reservation of peaceful purposes and international management, are the elements of CHM principle (Baslar 1998). Still, there is uncertainty regarding the common heritage of mankind principle and high seas freedom, especially with respect to the freedom of marine scientific research.

Compliance with the utilization regime entails fulfilling two core obligations: submitting notifications and implementing benefit-sharing mechanisms, encompassing both monetary and non-monetary aspects. These activities, subject

[5] Non-appropriation has traditionally been considered an indispensable element of the Clearing-House Mechanism principle. However, this element has been increasingly contested, with a growing preference for the notion of non-exclusive use. This shift reflects the evolving geopolitical and legal landscape since the 1960s and 1970s, when the Clearing-House Mechanism principle was originally framed with a strong emphasis on preventing the military extension and to halt aggressive free market ideologies. Today, the reinterpretation of the Clearing-House Mechanism principle seeks to expand its relevance to areas beyond national jurisdiction, with the aim of ensuring their effective protection and securing the vital interests of humankind, both present and future generations, see, Kemal Baslar, The Concept of the Common Heritage of Mankind in International Law (Martinus Nijhoff Publishers, 1998). pp. 85-91.

to notification and determination by decision of the Meeting of the Parties, impose an obligation on Parties to provide notification. Such notification shall be made to the "*Clearing House Mechanism*" established as an information-sharing mechanism under the Agreement. Parties are obligated to take necessary legal, administrative or policy measures to ensure notification through the Clearing House Mechanism. As a general rule, pre-collection notification should be made as soon as possible or no later than six months prior to the *in-situ* collection of marine genetic resources (BBNJ Agreement Art.12). The notification should include some set of information regarding the planned collection including nature and objectives of the collection, geographical areas and subject matter of research and methods intended to use. Making a change to the material planned to be collected is also possible as long as notification is made within a reasonable time, not being later than physical collection in principle. After the pre-collection notification to the Clearing House Mechanism, a BBNJ Identifier should be automatically generated. After the collection, a post-collection notification that contains specified information and the generated BBNJ Identifier should be made not more than one year after the in situ collection of the marine genetic resource of ABNJ.

Even though these activities are mainly to be conducted by nationals of the party States, the notification obligation lies with the State's shoulders as a norm of international conventions (Humphries *et al.* 2025b). Therefore, States are under an obligation to adopt domestic laws and policies regarding the notification process under the BBNJ Agreement. The Agreement is not clear about who will submit the notification, and adopted national legislations may also allow entities to make a notification to cut out bureaucracy, but keeping in mind that the ultimate obliged party is States. States shall provide notification in the form of aggregate reporting regarding access to marine genetic resource samples and digital sequence information stored in repositories and databases under their jurisdiction. States are required to notify the Clearing-House Mechanism as soon as relevant information becomes available regarding the utilization—including commercialization—of marine genetic resources from ABNJ, and, where practicable, digital sequence information on such resources by natural or legal persons under their jurisdiction. This notification must include, to the extent possible, the results of the utilization, details of any prior post-collection notification, the location where the original sample is held, modalities for third-party access to the marine genetic resources and digital sequence information, the associated data management plan, and information on product sales or further development, if such information is available. An established notification system aims to enhance transparency and monitoring in the utilization of marine genetic resources and associated data, serving as the backbone of the utilization system.
Benefits derived from the utilization of marine genetic resources and digital sequence information are intended to be used for the development and strengthening of capacity, specifically targeting developing States with specific conditions under a fair and equitable benefit-sharing mechanism. Furthermore, it

has been deemed appropriate to support scientific research activities and facilitate technology transfer and development in this regard. By becoming a party to the BBNJ Agreement, States will conduct respective activities on marine genetic resources located beyond their national maritime jurisdictions within the scope of the Agreement. Additionally, the commitment to provide capacity-building activities to middle-income developing States, as well as facilitate technology transfer within the framework of the Agreement, will pave the way for the accumulation of expertise regarding in these areas. Their scientists may benefit from the opportunity to participate in research projects and access samples, databases, repositories, and digital sequence information. These opportunities may ultimately enable developing States to secure their shares in various sectors derived from the utilization of marine genetic resource. While the distribution of financial benefits among States is also planned, priority in this benefit-sharing will be given to least developed States, small island developing States, and landlocked developing States. Consequently, the evaluation for middle-income developing States will likely occur in subsequent stages. Participation in capacity-building activities and technology transfer under the BBNJ Agreement will facilitate the involvement of developing States in research on marine genetic resources located beyond their national maritime jurisdictions and help them build expertise in this area (Kocabıyık 2024).

Examples of non-monetary benefits under the BBNJ Agreement may include, in accordance with existing international practice, providing access to samples and sample collections, as well as digital sequence information; ensuring open access to findable, accessible, interoperable, and reusable (FAIR) scientific data; sharing information contained in notification; facilitating the transfer of marine technology and capacity-building activities under the methods outlined in Part V of the Agreement (BBNJ Agreement Art. 12(2)).

In this context, the benefits that can be considered, including monetary benefits, can be decided upon in the meetings of the Parties under the BBNJ Agreement, taking into account the recommendations of the Access and Benefit-sharing Committee. The sharing of monetary benefits will be carried out by Article 52 of the Agreement, taking into account the recommendations of the Parties' Access and Benefit-sharing Committee, once the Agreement enters into force. Monetary benefits from the utilization of marine genetic resources and digital sequence information on marine genetic resources of ABNJ, including commercialization, shall be shared fairly and equitably, through the established financial mechanism for the conservation and sustainable use of marine biological diversity of ABNJ (BBNJ Agreement Art. 14.5). Modalities for the benefit-sharing can include milestone payments, payments or contributions related to the commercialization of products, including payment of a percentage of the revenue from sales of products and tiered fee, paid on a periodic basis, based on a diversified set of indicators measuring the aggregate level of activities by a Party (BBNJ Agreement Art. 14.7). According to recent research focusing on the market value

and commercialization of marine genetic resources under the BBNJ Agreement, if revenue-based payments and milestone payments are adopted as benefit-sharing modalities, a 1% revenue-based payment would amount to approximately $4 million annually at an estimated market value of $400 million, and up to $6.5 million at a higher estimated value of $650 million per year (Jaspars *et al.* 2025).

Following the entry into force of the Agreement, the modalities for implementing benefit-sharing will be determined by the Contracting States, taking into account the recommendations of the Access and Benefit-Sharing Committee to be established under the BBNJ Agreement. The question of how economic benefits derived from deep-sea minerals are to be shared falls within the mandate of the International Seabed Authority, which, despite being established over 25 years ago, has yet to reach an agreement on a comprehensive benefit-sharing mechanism. Similarly, concerns persist regarding the extent to which economic benefits arising from marine genetic resources and digital sequence information will be determined and distributed in a timely, fair and equitable manner under the BBNJ Agreement (Kocabıyık 2024).

3) Intellectual Rights over Marine Genetic Resources Found in ABNJ Under BBNJ Agreement

Intellectual rights such as a patent is a national right that protects applicants solely within the borders of a State, in accordance with the laws of each sovereign State. Intellectual property rights encompass various legal protections, including patents for inventions, trademarks for brand identifiers such as logos and names, as well as database rights and copyrights covering compilations of information and written content (Brown 2025). Within the context of the BBNJ Agreement, key areas of patent activity may include biotechnology and genetic engineering, software (in certain instances), peptides, genetically modified organisms (including plants), genetic vectors, fermentation technologies, analytical and testing methodologies, biocidal products, food-related innovations, and cosmetic formulations (Jaspars *et al.* 2025).

With the Marrakesh Agreement Establishing the World Trade Organization (WTO) [6], and consequently the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) member States have agreed on the minimum standards (rights and obligations) that must be provided in relation to patents, along with other intellectual property rights[7]. In other words, the WTO TRIPS Agreement sets the minimum standards that must be implemented by its member States. Although these minimum standards create a significant degree of uniformity in the laws and practices of the member States, States may still have different approaches to patents beyond the requirements set out in TRIPS. Today,

[6] Marrakesh Agreement Establishing the World Trade Organization (Marrakesh, 15 April 1994).

[7] Agreement on Trade-Related Aspects of Intellectual Property Rights adopted in 15 April 1994 entried into force in 23 January 2017 (December 6, 2005) Avaliable at: https://www.wipo.int/wipolex/en/text/500864 (accessed 07 July 2025).

approximately 160 States are members of the WTO, and it is likely that most of the States that are parties to the BBNJ Agreement will have laws and practices aligned with the TRIPS Agreement. Intellectual property issues are mainly regulated under the World Intellectual Property Organization (WIPO) and the WTO. Specifically, the adopted Treaty on Intellectual Property, Genetic Resources, and Associated Traditional Knowledge, under the auspices of WIPO, which has been in development for 25 years, can also be relevant in terms of marine genetic resources and associated digital sequence information under the BBNJ Agreement.

The Zero Draft text of the BBNJ Agreement introduced during IGC 3 negotiations text of the BBNJ Agreement contained detailed provisions on intellectual property rights. During the IGC negotiations, proposed options that included requirements for disclosure and limitations on patent applications and claims were considered to significantly alter the existing international legal framework and impact national legislation (Humphries *et al.* 2025a). As a result, the revised draft text produced as an outcome of IGC3 contained a simplified version of the draft articles on intellectual property; however, these provisions remained bracketed due to the lack of consensus among negotiating States (Humphries *et al.* 2025a). It should be noted that, during the negotiations, there were divergences of opinion on the inclusion of intellectual property provisions in the BBNJ Agreement between most of the developed States, which hold the majority of intellectual property rights related to genetic resources and the developing States. Developed States, naturally, opposed detailed IP-related provisions in the BBNJ Agreement that could potentially affect their own interests or those of their private entities. Southern States, particularly the G77, including China, advocated for the inclusion of detailed provisions on intellectual property rights within the BBNJ Agreement. In contrast, States such as the European Union, Canada, and Australia adopted a more conciliatory and compromise-oriented position throughout the negotiation process (De Santo *et al.* 2020). The adopted version of the Agreement contains only one stand-alone provision regarding intellectual property. One question arises regarding the place of intellectual property rights in terms of marine genetic resources, including digital sequence information, under the BBNJ Agreement regime, whether it introduces something new or repeats the current international legal framework.

Disclosure of origin, exposing the origin of the product, might be related to benefit sharing mechanism and therefore requires close examination in term of intellectual property right for establishing fair and equitable system. Even though some national laws have a requirement on disclosure of origin, the international framework does not impose any disclosure of origin obligation, nor does the BBNJ Agreement (Brown 2025). As a provision potentially related to intellectual property in the BBNJ Agreement, States Parties are obliged to notify the Clearing-House Mechanism of any patents resulting from the utilization of marine genetic resources and digital sequence information. For the effective

implementation of this provision, some form of engagement with patent offices, either to establish links between the invention and the BBNJ framework or through the use of patent office databases, will likely be required (Brown 2025). The absence of detailed provisions on intellectual property rights related to marine genetic resources and associated digital sequence information in the BBNJ Agreement does not imply that no action can be taken in this area. As explicitly stated in the BBNJ Agreement, it must coexist with relevant existing legal frameworks (Humphries *et al.* 2025a). It is argued that international intellectual property law also offers solutions that can facilitate the application of the principle of the common heritage of humankind, the principle of equity, and the use of the best available science and scientific knowledge with respect to these resources (Brown 2025). For instance, although the adopted Treaty on Intellectual Property, Genetic Resources, and Associated Traditional Knowledge does not specifically refer to the oceans or areas beyond national jurisdiction, it provides that when a claimed invention in a patent application is based on genetic resources, or when it relies on traditional knowledge associated with such resources, the contracting parties shall require applicants to disclose the country of origin of the genetic resource or the indigenous peoples or local community who provided the knowledge. However, the treaty further stipulates that if this information is unknown or if there is no identifiable country of origin, the source of the genetic resources must be disclosed. This requirement will also apply to marine genetic resources falling within the scope of the BBNJ Agreement. Nevertheless, the term "genetic resources" as used in the treaty does not include digital sequence information. Although bracketed provisions on intellectual property were removed from the BBNJ Agreement as a result of compromise during negotiations, it remains important to consider other legal mechanisms that reflect the principles outlined in Part II of the Agreement. While such a constructive approach may be taken, it must not be overlooked that the patent holder retains the most significant authority over the resource in question. That is, despite the BBNJ Agreement's reference to "open access to findable, accessible, interoperable and reusable (FAIR) scientific data", as one of the non-monetary benefit sharing methods, in cases where intellectual property rights are invoked, the entity holding those rights will ultimately have the final say over the use of the marine genetic resources or digital sequence information to which those rights pertain. In this regard, the structure and functioning of the Access and Benefit-Sharing (ABS) Committee to be established under the BBNJ Agreement will play a critical role in ensuring transparency within the intellectual property framework.

If no written reservation is submitted by a State Party, the regime set out for utilization marine genetic resources is to be considered applicable even prior to the Agreement's entry into force. As of the time of writing, several States, including the European Union, Denmark, Norway, Guinea-Bissau, the Republic of Korea, and Viet Nam, have submitted reservations indicating that these provisions shall not apply to them until the Agreement formally enters into force.

In summary, this part establishes a pioneering legal regime designed to regulate the equitable and sustainable use of marine genetic resources in ABNJ. While it addresses a significant legal gap, its ultimate success will depend on the political will of the Parties, as expressed through decisions of the Conference of the Parties (COP) and their incorporation into national legal frameworks. Additionally, the effectiveness of the regime will hinge on the clarity of its institutional mechanisms, its ability to align with the existing framework of international intellectual property, and the successful establishment of a fair and equitable monetary benefit-sharing system.

III. Measures such as area-based management tools including marine protected areas

One of the key outcomes of the BBNJ Agreement is the establishment of a legal process on how to protect the marine environment by establishing ABMTs, including marine protected areas. Currently, only approximately 1.45% of ABNJ formally protected. Considering the vital role these areas play in preserving global biodiversity, maintaining climate balance, and sustaining the health of the planet's ecosystems, there is an urgent need to significantly strengthen protection efforts. The conservation and sustainable use of ABNJ is critical not only for the resilience of marine life but also for the long-term well-being of life on Earth (Protected Planet 2025).

Article 192 of the UNCLOS obliges all States to take positive actions to protect and preserve the marine environment not only within national jurisdiction but beyond [8]. Specifically, Article 194(5) of the UNCLOS provides the legal background for the establishment of marine protected areas [9]. However, the UNCLOS does not contain detailed provisions on how to establish ABMTs, including marine protected areas in areas of national jurisdiction or ABNJ (Churchill *et al.* 2022). This part builds upon existing obligations included in the Part XII of the UNCLOS and customary international law regarding the protection of the marine environment (Diz *et al.* 2024).

Various other legal instruments provide frameworks for the adoption of protection measures in areas both within and beyond national jurisdiction. For instance, the International Maritime Organization (IMO) facilitates the designation of Particularly Sensitive Sea Areas (PSSAs)[10]. The Convention on Biological Diversity (CBD) contributes through the identification of Ecologically or Biologically Significant Marine Areas (EBSAs). Regional Seas Conventions

[8] *South China Sea (Philippines v. China)* (2016), PCA Case No. 2013-19, *RIAA* XXXIII (2020), paras 941-2; *Request for an Advisory Opinion by the Sub-Regional Fisheries Commission,* Advisory Opinion [2015] ITLOS Rep. paras 120 and 216.

[9] *Chagos Marine Protected Area Arbitration (Mauritus v. United Kingdom)* PCA Case No. 2011-03, *RIAA* XXXI (2018), para. 538.

[10] At present, no PSSA has been designated in ABNJ, IMO, Particularly Sensitive Sea Areas, at <https://www.imo.org/en/ourwork/environment/pages/pssas.aspx> accessed 5 July 2025.

and their associated action plans also play a significant role in regional marine protection efforts. Furthermore, the International Seabed Authority (ISA), the Food and Agriculture Organization (FAO) through its concept of Vulnerable Marine Ecosystems (VMEs), and Regional Fisheries Management Organizations (RFMOs) contribute to the implementation of area-based measures, such as the designation of fisheries-restricted areas. The examples outlined above illustrate the fragmented nature of the legal framework governing the protection of the marine environment (Proelss 2023).

The BBNJ Agreement is envisioned as a legal framework that is in line with relevant instruments and bodies, without undermining their scope and mandate in terms of the establishment of ABMTs, including marine protected areas. The textual interpretation of the "not undermining" rule suggests that the term does not imply a complete separation between the BBNJ Agreement and existing international frameworks and bodies (IFBs), nor does it preclude any impact of the BBNJ Agreement on such IFBs (Wang 2025). Instead, it indicates that the BBNJ Agreement should operate in a manner that ensures coordination and coherence with relevant IFBs, while respecting their respective mandates and competencies. In practice, the ability to impact or shape the work of relevant IFBs lies with the actions taken through the Conference of the Contracting Parties, provided such actions respect the 'not undermine' rule. Signing a memorandum of understanding between the Secretariat of the BBNJ Agreement and the secretariats of relevant IFBs may pave the way to the facilitation of coordination and coherence (Şanda 2025). Indeed, the COP of the BBNJ Agreement can make recommendations to Parties and IFBs for the promotion of the adoption of relevant measures through relevant IFBs, when adopted measures are within their competencies (BBNJ Agreement Art. 22(1)(c)). Also, there is an obligation of Parties to the BBNJ Agreement to promote the objectives of the BBNJ Agreement when participating in decision-making under relevant IFBs, which they are also party to (BBNJ Agreement Art.8). However this was seen as a soft obligation since there it cannot be formed specific and enforceable obligation (Klerk 2024). While the BBNJ Agreement aligns with relevant IFBs its primary objective is to facilitate the establishment of ABMTs, including marine protected areas, in ABNJ. To this end, it outlines a comprehensive procedural framework that encompasses the drafting of proposals, stakeholder engagement, publication and initial review, followed by the negotiation and assessment of proposals, and ultimately the establishment, implementation, and subsequent monitoring and review of the measures.

Parties may individually or jointly submit proposals for the establishment of such measures, and in doing so, they are required to collaborate and consult with relevant stakeholders during the development process. (BBNJ Agreement Art. 19). Proposals are expected to be formulated according to the best available science and scientific information, if available, it may also contain traditional knowledge, also taking into consideration a precautionary approach and

ecosystem approach. This part of the Agreement contains almost all the principles governing modern marine environmental law (Dalaker 2024).

After their submission to the Secretariat, it makes the proposal publicly available and also transmits it to the Science and Technical Body for preliminary review. Comments, views and information of the proposal will be sent to the proponent(s) for the its consideration, if possible, for revising or responding the substantive contributions not reflected in the proposal and then submits the revised version to the Secretariat. The Scientific and Technical Body concludes its final assessment and submits it recommendation for the consideration of COP of the BBNJ Agreement. After their submission to the Secretariat, it makes the proposal publicly available and also transmits it to the Body for preliminary review. Comments, views and information of the proposal will be sent to the proponent(s) for the its consideration, if possible, for revising or responding the substantive contributions not reflected in the proposal and then submits the revised version to the Secretariat. The Body concludes its final assessment and submits it recommendation for the consideration of COP of the BBNJ Agreement. Finally, COP may make a decision on the establishment of ABMTs, including marine protected areas, with a consensus if it is unreachable, a two-thirds majority of the Parties present and voting (BBNJ Agreement Art. 23(2)).

The BBNJ Agreement also ensures the implementation of these established measures by obliging party States to ensure that activities under their jurisdiction or control carried out in ABNJ are conducted according to established ABMTs including marine protected areas. Even these party States can establish more stringent measures than adopted under the BBNJ Agreement in line with the international law.

The BBNJ Agreement can also recognize existing ABMTs, including marine protected areas in ABNJ, established by relevant IFBs under its roof, through a decision taken by the Conference of Parties of the BBNJ Agreement. As a result, these measures would become binding on Parties to the BBNJ Agreement, even if those Parties are not members of the respective IFBs. As a general rule of international law, the decision adopted under an international treaty is only binding *inter partes* as a result of the principle of *pacta tertiis nec nocent nec prosun*. Owing to its global scope, the BBNJ Agreement holds significant potential to promote broader international recognition and coherence of existing conservation measures. This so-called recognition mechanism represents a novel procedural innovation introduced by the BBNJ. This process is named as "recognition process" even though it is not mentioned as recognition under the BBNJ Agreement. It is considered a useful tool in order to enhance coordination and cooperation between relevant IFBs (Klerk 2024).

The regime for establishment of these measures. This regime for sure will pave the way for effective protection of reaching the 30x30 goal as set out in the

Kunming- Montreal Global Biodiversity Framework[11]. All the efforts will show their results after the entry into force of the Agreement; therefore, its timely entry into force is essential for effective protection of the marine environment. Since the BBNJ Agreement puts a holistic regime for these measures in ABNJ, it is also important to set effective cooperation between relevant IFBs.

IV. Environmental impact assessment

Environmental impact assessments serve as a prevalent instrument within national and international frameworks to assess and inform decision-makers regarding the potential environmental impact of a proposed development or project, as well as strategies to enhance the project to mitigate possible adverse outcomes (Kachelriess 2023). In its judgement[12], the International Court of Justice (ICJ) stated that the practice of EIA "*has gained so much acceptance among States that it may now be considered as a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context*…." (Payne 2010). Currently, various binding and non-binding international instruments mandate environmental impact assessments; a recent research indicates that nearly every State integrates some kind of EIA inside its national legal framework (Craik 2015). Nonetheless, the current EIA requirements vary in substance and extent. For instance, whereas the 1991 Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention) delineates specific guidelines on the timing and execution of an environmental impact assessment, the UNCLOS lacks such provisions. (Blitza 2017). The obligation to do environmental impact assessments is a fundamental aspect of the overarching principle of prevention (Blitza 2017). As recently affirmed by the ICJ in its Pulp Mills ruling, it would be challenging for a State to assert compliance with the principle if it had not assessed the potential negative impacts of a proposed project on the environment.

In essence, the purpose of an EIA is to introduce a structured process for evaluating the potential environmental consequences of a planned activity and to ensure that affected stakeholders have the opportunity to participate in the decision-making process prior to project approval. Nonetheless, the EIA itself does not serve as a mechanism to determine the permissibility of the project or to dictate the regulatory framework under which it should operate (Boyle and Redgwell 2021). The primary distinction between environmental impact assessments and Strategic Environmental Assessments is to the degree of decision-making and the nature of the activities assessed. Environmental impact assessments generally concentrate on particular physical projects or

[11] Kunming- Montreal Global Biodiversity Framework, Decision adopted by the Conference of Parties to the Convention on Biological Diversity, CBD/COP/DEC/15/4, 19 December 2022, < https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf> (accessed 07 July 2025).

[12] ICJ, Case Concerning Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment of 20 April 2010, ICJ Reports (2010).

developments, whereas strategic environmental assessments evaluate more extensive governmental initiatives, including plans, programs, or policies (UN Environment 2018).

Although the UNCLOS does not explicitly use the term EIA, it imposes an obligation on States to assess the potential effects of planned activities under their jurisdiction or control when there are reasonable grounds to believe that such activities may cause substantial pollution or significant and harmful changes to the marine environment, including ABNJ in Article 206. This provision aims to guarantee that decision-makers are adequately informed about a project's impact on the marine environment prior to its execution. However, it lacks sufficient specificity to establish an efficient system, resulting in chaotic sectoral or regional-based EIA implementation (Druel 2013).

Although the UNCLOS appears to impose a general obligation to assess the impacts of human activities in ABNJ, it does not establish a default mechanism for sectoral activities not covered by existing organizations, and it leaves the responsibility for such assessments entirely and implicitly to the flag State (Warner 2012). Additionally, the ambiguity in the UNCLOS regarding key terms such as "*reasonable grounds*", "*substantial pollution*" and "*significant and harmful changes*" gives rise to ongoing debates concerning the precise scope and interpretation of its environmental assessment obligations (Tanaka 2024). The effectiveness of environmental impact assessments largely relies on transparency and accountability. Yet, the UNCLOS lacks a specific institutional mechanism to uphold these principles within the EIA process, making it difficult for external actors to assess whether States have properly fulfilled their assessment obligations, an issue that was prominently highlighted in the South China Sea Arbitration (Tanaka 2024). The arbitral tribunal stated that "*the Tribunal cannot make a definitive finding that China has prepared an environmental impact assessment, but nor can it definitely find that it has failed to do so in light of the repeated assertions by Chinese officials and scientists that China has undertaken thorough studies*" (South China Sea Arbitration 2016). Accordingly, it becomes essential to examine whether, and to what extent, the BBNJ Agreement is capable of addressing these regulatory gaps.

The BBNJ Agreement demonstrates a significant commitment to strengthening EIA rules and procedures in the ABNJ. Despite this improvement, various obstacles may occur when implementing these EIA obligations. For instance, the internationalization of its EIA provisions is expected to face several difficulties and there is no comprehensive study on how the EIA rules of the BBNJ Agreement apply to the ABNJ (Wang and Pan 2025). Therefore, in this part, the difficulties and challenges in the implementation of the BBNJ Agreement will be briefly analyzed.

The BBNJ Agreement imposes an obligation to conduct EIA, thresholds, process and its transparency. It defines EIA as a "*process to identify and evaluate the potential impacts of an activity to inform decision-making*" (BBNJ Agreement Art. 1.7) and under the Part IV, it regulates environmental impact assessments. Article 28 sets forth the geographical scope of the EIA under the BBNJ Agreement and governs different types of environmental impact assessments: transboundary EIA, EIA in the ABNJ and SEA. Article 28.1 states that "*parties shall ensure that the potential impacts on the marine environment of planned activities under their jurisdiction or control that take place in areas beyond national jurisdiction are assessed as set out in this Part before they are authorized*". In this sense, the main concern is to guarantee that activities occurring in the ABNJ are evaluated as stipulated in Part IV of the Agreement prior to authorization. Therefore, the primary criterion is whether the action occurs in ABNJ, rather than whether its results may be realized in ABNJ (Currie and Müller 2023).

Even though the Agreement explicitly does not refer to the transboundary EIA, the BBNJ Agreement also applies to activities within national jurisdiction that may impact ABNJ, requiring an EIA in line with Part IV or national procedures. Article 28.2 provides that "*when a Party with jurisdiction or control over a planned activity that is to be conducted in marine areas within national jurisdiction determines that the activity may cause substantial pollution of or significant and harmful changes to the marine environment in areas beyond national jurisdiction*". When opting for the national process, the Party must: promptly share relevant information via the Clearing-House Mechanism during the assessment process; monitor the activity in accordance with national requirements; and make both the EIA and related monitoring reports publicly available through the Clearing-House Mechanism, as stipulated in the Agreement. This raises practical questions about how such provisions will be implemented. Similarly, evaluating "*substantial*" and "*significant*" terminology may leave room for a discretionary interpretation. In this regard, the Scientific and Technical Body is authorized to offer comments to the party with authority or control over the planned activity pursuant to Article 28(3).

Lastly, in Article 39 SEA has been regulated. In the further revised draft text of an 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 dated 1 June 2022, two different definitions for the SEA has been included in the text; however, none of these definitions has been included in the final text of the Agreement[13]. Even though SEA is not defined under the

[13] Further revised draft text of an 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. 1 June 2022. A/CONF.232/2022/5. Available at https://digitallibrary.un.org/record/3981722?v=pdf (accessed 6 July 2025.) "Article 1(16) Option A: "Strategic environmental assessment" means a higher-level assessment process that can be

Agreement, they are to be conducted for "*plans and programmes relating to activities*" (BBNJ Agreement Art. 39.1).

While the BBNJ Agreement outlines procedural and substantive requirements for environmental impact assessments, a critical question remains: when does the obligation to conduct such an assessment actually arise? The BBNJ Agreement delineates the processes of EIA throughout distinct phases, in contrast to the UNCLOS: preliminary stage; screening; scoping; impact assessment and evaluation; prevention, mitigation and management of potential adverse effects (BBNJ Agreement Art.31). States shall ensure that any planned activity under their jurisdiction or control is first subject to a preliminary evaluation to determine whether it may have more than a minor or transitory effect on the marine environment, or the effects of the activity are unknown or poorly understood. If the activity is determined to have more than a minor or transitory effect, it shall undergo a screening process to assess whether it may cause substantial pollution or significant and harmful changes to the marine environment (BBNJ Agreement Art. 30.1). Article 206 of the UNCLOS stipulates that reasonable reasons for believing an activity may result in substantial pollution or significant and harmful changes to the environment have been invoked; nevertheless, the BBNJ Agreement employs the criterion of "*more than a minor or transitory effect*". This threshold is derived from the Antarctic Protocol [14] approach and is considered more explicit and cautious, thereby exposing a wider range of activities to EIA (Craik and Gu 2021). Although this term is used to eliminate the uncertainty associated with the word "*significant*" as utilized in UNCLOS, the phrase "*minor or transitory*" may introduce some ambiguity throughout the implementation of the BBNJ. Where the screening indicates no substantial or significant harmful impact, the State shall make relevant information publicly available, through the Clearing-House Mechanism under this Agreement. Simultaneously, the Scientific and Technical Body is required to assess and may analyze the potential effects of the planned activity using the best available science and scientific information. Additionally, it may provide recommendations to the party that made the determination as outlined in the Agreement. (BBNJ Agreement Art 31.1.a.iv). Additionally, a review of the published information utilized in the screening process for determining the

used in three main ways: (a) to prepare a strategic development or resource use plan for a defined land and/or ocean area; (b) to examine the potential environmental impacts that may arise from, or impact upon, the implementation of government policies, plans and programmes; and (c) to assess various classes or types of development projects, so as to produce general environmental management policies or design guidelines for the development classes or types. Option B: "Strategic environmental assessment" means the evaluation of the likely environmental effects, including health effects, which comprises determining the scope of an environmental report and its preparation, carrying out public participation and consultations, and taking into account the environmental report and the results of the public participation and consultations in a plan or programme."

[14] Protocol on Environmental Protection to the Antarctic Treaty (adopted 4 October 1991, entered into force 14 January 1998) 2941 UNTS 3 (Antarctic Protocol) art 8.

necessity of conducting an EIA shall be considered and reviewed by the Scientific and Technical Body in line with Article 33(7) to develop guidelines, including the identification of best practices.

If the screening indicates a risk or if the Party has reasonable grounds for believing that the activity may cause substantial pollution or significant and harmful changes to the marine environment, an EIA shall be conducted under Part IV (BBNJ Agreement Art. 30). In the scoping stage, key environmental and any associated impacts, as well as alternatives to the planned activity are identified. Scoping concentrates on the main EIA concerns in an effort to avoid lengthy, costly and time-consuming investigations. Scoping aims to address this issue by focusing the study on the environmental concerns that are most likely to have a significant impact on the environment, thereby enhancing the efficiency of the process (Craik 2008).

After the scoping stage, impact assessment and evaluation will be exercised. In this stage, impacts of planned activities, including cumulative impacts and impacts in areas within national jurisdiction are assessed. Cumulative impacts are defined in the Art. 1 of the Agreement as "the combined and incremental impacts resulting from different activities, including known past and present and reasonably foreseeable activities, or from the repetition of similar activities over time, and the consequences of climate change, ocean acidification and related impacts". During negotiations of the Agreement, several governments advocated for the total removal of this definition or the elimination of the section regarding climate change and ocean acidification; nonetheless, this definition ultimately remained in the original text of the Agreement (Scott 2023). For instance, the EU and its member States have proposed the deletion of "*climate change, ocean acidification and related impacts*" from the definition, on the other hand, the Republic of Korea has suggested that the entire definition of cumulative impacts be removed altogether[15]. This definition expresses an obligation to include climate change and ocean acidification in the EIA process. Marine geoengineering is a clear example of this kind of action (Scott 2023). The assessment of cumulative consequences is expected to be complex, and the COP may require clarification on their practical consideration. Explicitly referencing the effects of climate change is beneficial for ensuring that these consequences be evaluated in the context of long-term alterations to marine ecosystems (Mossop 2021).

[15] Textual proposals submitted by delegations by 20 February 2020, for consideration at the fourth session of the Intergovernmental conference on an international legally binding instrument 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 (the Conference), in response to the invitation by the President of the Conference in her Note of 18 November 2019 (A/conf.232/2020/3) Available at <https://www.un.org/bbnj/sites/www.un.org.bbnj/files/textual_proposals_compilation_article-by-article_-_15_april_2020.pdf> (accessed 7 July 2025).

In the last stage of the EIA, which is prevention, mitigation and management of potential adverse effects; measures to prevent, mitigate and manage potential adverse effects are identified and analysed. Parties shall ensure public notification and consultation by Article 32 and Parties shall ensure the preparation and publication of an environmental impact assessment report according to Article 33 (BBNJ Agreement Art. 31). The Agreement requires that Parties ensure the preparation of an EIA report for any EIA undertaken under the Agreement, and lists the minimum information that must be included in such an EIA report. The Party is required to create the draft environmental impact assessment report, which must be accessible via the Clearing-House Mechanism during the public consultation process, allowing the Scientific and Technical Body to review and analyze the report. The Scientific and Technical Body considers draft EIA report and may make comments for Parties to consider. Final EIA reports also must be published, through Clearing-House Mechanism. The final EIA report is subject to consideration of the Scientific and Technical Body "*for the purpose of developing guidelines, including the identification of best practices*" (BBNJ Agreement Art. 33.6).

The decision on whether an environmental impact assessment (EIA) is required for a planned activity and whether the activity is allowed to proceed following an EIA will be made by the Party that has jurisdiction or control over the activity. Decision documents must outline conditions of approval and follow-up requirements and should be made public, including through the Clearing-House Mechanism. The Conference of the Parties may provide advice and assistance to that Party when determining whether a planned activity under its jurisdiction or control may proceed, if requested (BBNJ Agreement Art. 34). Even though the goal COP decision-making under this part of the Agreement is not achieved, a balancing system to the state discretion has been added to the process such as: the Scientific and Technical Body reviews and evaluation of EIA reports, the "*call-in mechanism*" at the screening stage like a decision that no EIA is required for a proposed activity (under Art. 31) and call-in mechanism during review stage (under Art. 37). A significant deficiency in the call-in system is the absence of a process to articulate and resolve concerns over decisions to authorize activities following an EIA but before the initiation of such activities (Hassanali 2023).

The BBNJ Agreement outlines the conditions under which an EIA is mandated, as well as the scenarios in which such an assessment may be deemed unnecessary. This approach acknowledges and recognizes existing legal instruments and institutional frameworks by creating a connection between the EIA requirements of this Agreement and those of relevant global, regional, subregional, and sectoral bodies. Article 29 of the BBNJ Agreement outlines a set of instruments designed to enhance the coherence of EIA rules across global, regional, sub-regional, and sectoral bodies. (Hassanali 2023). This approach, as reflected in Article 29 of the BBNJ Agreement, aims to prevent duplication of obligations and promote coherence and mutual supportiveness among existing environmental governance

mechanisms. The Agreement does this to support the concept of complementarity and ensure that its implementation aligns with existing legislative frameworks and sectoral practices.

In this regard, according to Article 29, EIA or screening is not required when the thresholds are not met, or if it is determined that the potential impacts of the planned activity have been assessed in accordance with the requirements of an IFB. In this article it is regulated that, if the assessment already undertaken for the planned activity is equivalent to the one required under Part IV, and the results of the assessment are taken into account; or the regulations or standards of the IFB arising from the assessment were designed to prevent, mitigate or manage potential impacts below the threshold for environmental impact assessments under Part IV, and they have been complied with. Should an EIA for a planned activity in ABNJ has been conducted under a relevant legal instrument or framework or a relevant global, regional, subregional or sectoral body, the Party shall ensure that the EIA report is published through the Clearing-House Mechanism (BBNJ Agreement Art. 29.5).

However, Article 29 provides no clarification on how a party might ascertain if the evaluation previously conducted for the proposed activity is equal to that mandated by Part IV of the BBNJ Agreement (Tanaka 2024). When an EIA is conducted under legal instruments distinct from the BBNJ Agreement, a concern emerges over the equivalence of the EIA under the BBNJ Agreement compared to the EIA under the other IFBs (Kim 2024). Article 29(3) of the BBNJ Agreement mandates the Scientific and Technical Body to engage with relevant global, regional, subregional, and sectoral bodies when formulating or revising standards or guidelines for environmental impact assessments of activities in ABNJ by the parties. The COP must create cooperative mechanisms in line with Article 29(2) of the Agreement. Collaboration between the Scientific and Technical Body and the bodies mentioned above will be essential to standardize the EIA conducted under applicable legislative instruments or frameworks. (Tanaka 2024) In summary, according to relationship between the BBNJ Agreement and EIA processes under IFBs: parties are required to promote the use of environmental impact assessments and standards and guidelines in IFBs, the COP will develop mechanisms for Scientific and Technical Body to cooperate with IFBs on environmental impact assessments and the Body shall cooperate with IFBs in developing or updating standards or guidelines.

In conclusion, the BBNJ Agreement represents a substantial advancement in the EIA process concerning environmental governance in ABNJ. It specifically delineates the thresholds for the EIA, mandates public participation, and ensures transparency. However, challenges and difficulties regarding its implementation still remain. It is articulated that States possess significant discretion in determining whether a particular activity meets the criteria for the Environmental Impact Assessment threshold. The absence of binding global standards is evident,

as the Agreement primarily endorses soft law instruments such as guidelines (Li and Zhang 2024). Furthermore, it is important to recognize that developing nations may face deficiencies in technical, legal, or financial resources necessary to effectively conduct environmental impact assessments or to evaluate reports submitted by other States. Ultimately, the assessment of cumulative and transboundary impacts presents significant challenges and necessitates collaborative scientific efforts.

V. Capacity building and transfer of marine technology

The Capacity Building and Transfer of Marine Technology holds considerable significance within the BBNJ Agreement, as this agreement emphasizes the importance of equity alongside the conservation and sustainable use of ABNJ. Additionally, it is sufficient for the effective implementation of the Agreement, as its vast geographical coverage makes cooperation and active participation essential. (Harden-Davies *et al.* 2024).

The objectives of the Part V of the Agreement which regulates the capacity building and the transfer of marine technology are to support Parties, especially developing States, in effectively implementing the BBNJ Agreement and its provisions; to promote inclusive, equitable, and meaningful participation in related activities; to strengthen marine scientific and technological capacities, particularly in the area of conservation and sustainable use of marine biodiversity in ABNJ; and to foster the sharing and dissemination of knowledge and technology (BBNJ Agreement Art. 40).

The capacity building and the transfer of marine technology regulated in Part V of the Agreement; however, there are some references to such technology in other parts of the Agreement as a cross cutting issue since it is critical for improving equitable participation in the ocean commons. The Agreement creates a responsibility for the Parties to work together to provide support, either directly or through relevant legal instruments and frameworks and relevant global, regional, subregional and sectoral bodies (BBNJ Agreement Art. 41). BBNJ Agreement also widen the cooperation obligation at all levels and in all forms by including the private sector, civil society and Indigenous Peoples and Local Communities (BBNJ Agreement Art. 41.2.) This technology should be tailored to meet the needs and priorities of developing States, while considering the special circumstances of small island developing States and least developed States (BBNJ Agreement Art. 42.4, 43.3., 43.5., 45.2.a).

The capacity building and the transfer of marine technology should be guided by the States' needs, ensuring clarity and efficiency in its processes. The needs and priorities of those States can be evaluated on their own or supported through the committee focused on capacity-building and the transfer of marine technology, as well as the Clearing-House Mechanism. (BBNJ Agreement 42.3., 42.4.) The Agreement outlines its various forms, such as sharing data, information

dissemination strengthening of institutional capacity, and raising awareness in Art. 44 in a non-exhaustive way and Annex II further specifies them.

Unlike many other multilateral environmental agreements, the BBNJ Agreement establishes capacity building and the transfer of marine technology as mandatory obligations. The BBNJ Agreement strengthens the approach of the UNCLOS by creating a monitoring and review process, establishing institutional mechanisms such as the Capacity Building and the Transfer of Marine Technology Committee, including specific funding provisions for such technology (Harden-Davies *et al.* 2024). The capacity building and the transfer of marine technology obligations within the BBNJ Agreements foster a more mandatory and collaborative approach compared to the vague and voluntary terminology found in the UNCLOS. The BBNJ Agreement founds the Committee in Article 46, and it refers that the terms of reference and modalities for the operation of the committee shall be decided by the Conference of the Parties at its first meeting. Also, the committee is obligated to submit reports and recommendations to COP for its consideration and to take action on as appropriate.

Even though establishing a financial mechanism, including specific funding provisions for capacity-building projects in the form of the Special Fund and the Global Environment Facility is a promising development (BBNJ Agreement Art. 52), two main challenges may limit its effectiveness for developing States. First, certain funding components, such as monetary benefit-sharing from marine genetic resources, are conditional and not guaranteed, as they depend on the pace of research, commercialization success and allow "*opt-out*" clauses for developed States. Second, although the BBNJ Agreement allows broad eligibility for funding support, it lacks clear criteria for prioritization, equitable allocation and accountability. Moreover, the text explicitly prioritizes least developed States (LDCs) and small island developing States (SIDS), which may leave other States with genuine capacity needs underfunded unless further clarified by future decisions of the Conference of the Parties (Lothian *et al.* 2025).

Solutions can be offered to effectively overcome the challenges and difficulties in implementing the capacity building and the transfer of marine technology under the BBNJ Agreement. One of the solutions will be a provisional application regulated under international law. International law allows for the provisional application of treaties, a procedure that permits States and international organizations to implement their terms prior to their formal entrance into force (Müller and Currie 2023). The Vienna Convention on the Law of Treaties, Article 25, regulates the provisional application of a treaty, if the treaty itself provides for it or if the negotiating States have agreed to it in some other manner. Therefore, a treaty or a part of a treaty can be applied provisionally pending its entry into force if the treaty itself provides. The BBNJ Agreement itself specifically regulates provisional application in Art. 69 under PART XII Final Provisions as: "*This Agreement may be applied provisionally by a State or*

regional economic integration organization that consents to its provisional application by so notifying the depositary in writing at the time of signature or deposit of its instrument of ratification, approval, acceptance or accession. Such provisional application shall become effective from the date of receipt of the notification by the depositary".

Given the urgent need to safeguard the health of the ocean, some argue that certain elements of the BBNJ Agreement could start to be applied even before the Agreement formally enters into force. (Müller and Currie 2023) While the full institutional framework cannot be finalized without its legal adoption, the capacity building and the transfer of marine technology are often seen as areas where early action is both possible and necessary, particularly because they rely so heavily on cooperation and coordination. States can achieve this by forming collaborations with the private sector and civil society. States might consider the categories outlined in the Agreement and foster the economic and legal frameworks necessary for the transfer of marine technology. Overall, while the BBNJ Agreement marks a significant advancement in embedding this technology as binding commitments, the success of its implementation will depend on early political will, clear operational guidance, and equitable allocation mechanisms.

VI. Potential implication of Türkiye

The BBNJ Agreement, while referencing UNCLOS in its title, extends beyond it. Article 2 of the Agreement articulates that its objectives will be achieved "*through effective implementation of the relevant provisions of UNCLOS and further international cooperation and coordination*". As such, it aims to establish a new set of obligations for the Parties in addition to those outlined in UNCLOS (Whomersley 2025). This intention is further underscored by provisions that acknowledge non-parties to UNCLOS, including the option for non-parties regarding dispute settlement as outlined in Article 60. While the BBNJ Agreement strives for universality, non-parties to the UNCLOS seek to ensure that their legal status under UNCLOS remains unchanged upon becoming a party to the Agreement.

Throughout the negotiations, Türkiye, as a developing peninsula nation, consistently underscored the importance of clarifying that active participation in the sessions of the Intergovernmental Conference or the outcomes of these negotiations would not alter its legal status as a non-Party to UNCLOS or any related agreement. This principle has been affirmed in Resolution 69/292 and Resolution 72/249[16]. Additionally, Türkiye, in collaboration with other non-Party States to the UNCLOS, issued a joint statement addressing this matter.

[16] Resolution adopted by the General Assembly, A/RES/69/292. (19 June 2015) states that in paragraph 4: "Also recognizes that neither participation in the negotiations nor their outcome may affect the legal status of non-parties to the Convention or any other related agreements with regard to those instruments, or the legal status of parties to the Convention or any other related agreements with regard to those instruments".

A proposal to incorporate the legal status of non-parties to the UNCLOS into the main text of the Agreement received support from G77 nations, particularly those that are not parties to the UNCLOS. In contrast, States such as Iceland, Canada, Norway, Australia, and the EU argued for the exclusion of this statement from the Agreement. The EU raised concerns regarding the necessity of explicitly referencing this article in the BBNJ Agreement, noting that, under the principles of international law outlined in the Vienna Convention on the Law of Treaties, a non-signatory State cannot be bound by a treaty. They contended that merely referencing the Vienna Convention would not adequately safeguard the position of non-parties to the UNCLOS, particularly since Türkiye is also not a party to that convention. Following extensive discussions, the resumed fifth session of the Intergovernmental Conference culminated in the decision to incorporate Article 5.3 into the BBNJ Agreement, which states: "*The legal status of non-parties to the Convention or any other related agreements with respect to those instruments is not altered by this Agreement*".

The incorporation of this provision, along with the addition of an option under the dispute settlement clause that includes non-party States, has addressed Türkiye's key sensitivities and critical demands within the Agreement text. Türkiye's position primarily stems from the prohibition of reservations to the UNCLOS, as stipulated in Article 309. This restriction has prevented Türkiye from becoming a party to the UNCLOS, as it cannot make reservations concerning the provision related to the breadth of territorial sea, delimitation of the territorial sea, delimitation of the continental shelf, and the legal regime of islands (Ergüven 2021). During the negotiations for the BBNJ Agreement, Türkiye reaffirmed its support for the overarching intent of the UNCLOS and expressed agreement with nearly all of its provisions, with the exception of three articles. This agreement was especially strong regarding provisions focused on the protection of the marine environment and the sustainable use of oceans and their resources. Despite this, due to the flexibilities introduced in the BBNJ Agreement, Türkiye signed the Agreement on September 27, 2024, although the ratification process is still pending.

By signing this Agreement, Türkiye has indicated that it is not evaluating the Agreement solely in relation to its adjacent seas, but also concerning areas beyond its borders, with the intention of protecting and preserving the marine environment. In doing so, Türkiye has reaffirmed its legal status under the UNCLOS, demonstrating a commitment to integrating into the broader framework of ocean governance aimed at contributing to the protection and preservation of the marine ecosystem.

This act of signature also carries significant legal implications under international treaty law. The legal status of the signatories to the BBNJ Agreement remains a topic of ongoing discussion among scholars. According to Article 18 of the Vienna Convention on the Law of Treaties, States that have signed a treaty are

bound to refrain from actions that would defeat the object and purpose of that treaty (Gragl and Fitzmaurice 2019).

In this context, Türkiye and other signatories to the BBNJ Agreement should conduct themselves in a manner consistent with the Agreement's overarching goals, namely, the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction during the period between signature and ratification until they make their intention clear not to become a party to the Agreement. This may provide a transitional framework for States, encouraging collaboration among signatories before the treaty becomes legally binding (Gragl and Fitzmaurice 2019).

Türkiye is surrounded by the Black Sea, Aegean Sea, and Mediterranean Sea, as well as the Marmara Sea as an inland sea. The Aegean Sea and the Mediterranean Sea contain high sea areas, despite being considered semi-enclosed seas, which means the distance between their opposite coasts remains below 400 nautical miles at its widest point (Cacaud 2003). For political and geophysical reasons, most Mediterranean States have not declared the exclusive economic zones (EEZ) beyond their territorial seas. Should all Mediterranean States proclaim their EEZs, the entire Mediterranean would be covered with EEZs, and the high seas would disappear.

Even though in the non-delimited areas, protective measures must be taken in regions. Since the Mediterranean Sea, in particular, is one of the marine areas most severely affected by intense maritime traffic, marine pollution, the warming of the seas due to climate change, and the threat of significant biodiversity loss (Öztürk *et al.* 2025). For the past 50 years, the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) has served as the regional sea convention governing the protection of the Mediterranean [17]. Together with its seven protocols, it establishes comprehensive regional standards for environmental protection in all relevant aspects. Within the framework of Protocol Concerning Specially Protected Areas and Biological Diversity[18] in the Mediterranean, Specially Protected Areas of Mediterranean Importance (SPAMIs) constitute a form of marine protected area, enabling the designation of such areas—including those in the high seas of the Mediterranean. In this context, the question arises as to which legal framework would take precedence in the designation of ABMTS including MPAs under the BBNJ Agreement or the Barcelona Convention. It is essential that the BBNJ

[17] 1995 Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (hereinafter "Barcelona Convention"), Date of Adoption: 10/06/1995, 1102 UNTS 27.

[18] Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (hereinafter "SPA/BD Protocol") was adopted on 10 June 1995 <https://www.unep.org/unepmap/who-we-are/contracting-parties/specially-protected-areas-protocol-spa-and-biodiversity-protocol> (accessed 10 July 2025).

Agreement and the Barcelona Convention be applied in a coherent manner, guided by the "not undermine" principle set forth in the BBNJ Agreement.

The high seas lie beyond the national jurisdiction of coastal States, thus, beyond their legal competence to prescribe rules and enforce them. However, within the regional context, through collective agreement, States can adopt and enforce rules and regulations for protection of the marine environment with respect to the parties to such agreements. The Pelagos Sanctuary is one of the early examples of such cooperative efforts, showing again the innovative approach under the UNEP/MAP. However, to date there has been no creation of additional joint SPAMIs. This may be attributed, in part, to the fact that areas of high seas in the Mediterranean Sea currently exist only because of challenges in delimitation of overlapping maritime zones that have yet to be agreed upon by the coastal States. Effective measures must therefore be taken under both the BBNJ Agreement and the framework of the Barcelona Convention. Currently, especially in the Eastern Mediterranean, there are areas beyond the territorial seas where no exclusive economic zone has been declared. Moreover, if the high seas emphasis of the BBNJ Agreement strictly depends on States' administrative boundaries or unilateral declarations, many vulnerable marine areas in the Mediterranean will remain unprotected (Şanda 2025). In this regard, the Barcelona Convention and its protocols clarify that measures taken for environmental protection shall in no way affect future maritime claims. With the assurance provided by the Barcelona Convention and the regime established by the BBNJ Agreement, significant steps can be taken to protect the Mediterranean through cooperation, coordination, and the political will of the States involved.

Even though, Türkiye has consistently underscored that in certain maritime areas, coastal States have not yet declared or delimited EEZs[19], despite having potential entitlements under international law once it enters into force, States that are parties to both the BBNJ Agreement and the Barcelona Convention must be aware of their responsibilities to take the necessary actions in order to establish ABMTs including maritime protected areas.

Lastly, one question might arise where Türkiye will be situated itself in terms of benefit sharing and capacity building and marine technology transfer under the BBNJ Agreement. During the negotiations, Türkiye has adopted a stance as a developing State.[20] However Türkiye is not likely to benefit from the funding benefits since the specific focus are planned to be given on basis of need and special circumstances of small island developing States and of least developed

[19] Closing Statement by The Republic of Turkey, Fourth Session of the Intergovernmental Conference for an international legally binding instrument 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 (18 March 2022).

[20] Ibid, In the closing statement it has been stated that: "Turkey as a developing peninsula country..".

States will likely to be given priority. The optimal approach for Türkiye, in the event of its future ratification of the BBNJ Agreement, is to actively engage in capacity-building initiatives and technology transfer provisions delineated within the Agreement. Such participation would significantly enhance the involvement of developing nations in research concerning marine genetic resources located beyond their national maritime jurisdictions. Furthermore, it would contribute to the development of expertise in Türkiye regarding these crucial studies. By engaging in collaborative research projects, Turkish scientists would gain valuable opportunities to access critical samples, databases, repositories, and digital sequence information, thereby fostering a robust framework for scientific inquiry and innovation in marine biodiversity.

Conclusion

The BBNJ Agreement represents a landmark development in international ocean governance, addressing long-standing regulatory gaps in the conservation and sustainable use of marine biodiversity in ABNJ. By introducing novel legal regimes on the utilization of marine genetic resources, establishing procedures for area-based management tools, strengthening environmental impact assessments, and mandating capacity building and technology transfer, the Agreement not only complements existing legal frameworks such as the UNCLOS but also reflects a progressive shift towards equity, transparency and cooperation in global marine governance. Its institutional design, including the roles of the Conference of the Parties and supporting committees, is expected to facilitate coordination among various international frameworks and ensure accountability in implementation.

Nonetheless, the successful realization of the Agreement's objectives will largely depend on the political will of the Parties, the coherence of its institutional mechanisms, and the readiness of States to integrate its obligations into domestic legal systems. The Agreement's emphasis on inclusivity, primarily through support for developing States, highlights the importance of a fair and equitable benefit-sharing mechanism under the BBNJ Agreement. Türkiye's participation, despite its non-party status to the UNCLOS, demonstrates the potential for the BBNJ framework to serve as a unifying platform for States with diverse legal positions. As the world faces intensifying threats to marine ecosystems, the timely ratification and implementation of the BBNJ Agreement are essential for ensuring the long-term protection and sustainable use of the ocean commons.

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BBNJ Anlaşmasının Uygulanması: Genel Bir Değerlendirme ve Türkiye Perspektifi

Öz

Bu makale, Ulusal Yetki Alanları Dışındaki Alanların Deniz Biyolojik Çeşitliliğinin Korunması ve Sürdürülebilir Kullanımı Anlaşması (BBNJ Anlaşması) ile getirilen temel yenilikleri incelemektedir. Anlaşmanın dört ana sütununa odaklanmaktadır: deniz genetik kaynaklarına erişim ve fayda paylaşımı, deniz koruma alanları (MPA'lar) dahil olmak üzere alan bazlı yönetim araçları (ABMT'ler), çevresel etki değerlendirmeleri ve kapasite geliştirme ve deniz teknolojisinin transferi. Makale, bu mekanizmaların ulusal yetki alanlarının ötesindeki alanlarda deniz biyoçeşitliliğinin sürdürülebilir kullanımı ve korunmasına nasıl katkıda bulunduğunu analiz ederken, aynı zamanda bunların uygulanmasını çevreleyen yasal, kurumsal ve pratik zorlukları da ele almaktadır. Özellikle deniz genetik kaynaklarının adil ve kapsayıcı paylaşımı ile ilgili olarak hakkaniyet konusuna özel önem verilmektedir. Bu bağlamda, Türkiye'nin Birleşmiş Milletler Deniz Hukuku Sözleşmesi'ne (UNCLOS) taraf olmaması ve bunun Türkiye'nin BBNJ çerçevesine potansiyel katılımı üzerindeki etkileri incelenmektedir. Makale ayrıca BBNJ Anlaşması'nın açık denizler için daha işbirlikçi ve kapsayıcı bir yönetişim sistemini teşvik etme potansiyeline ve zorluklarına odaklanmaktadır.

Anahtar kelimeler: BBNJ Anlaşması, denizel biyoçeşitlilik, BMDHS, denizel genetik kaynakları, alan temelli yönetim araçları, çevresel etki değerlendirmesi, kapasite inşası ve deniz teknolojisi transferi

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