RECONCEPTUALIZING PATENT EXCLUSIVITY UNDER THE BBNJ AGREEMENT: A COMPARATIVE STUDY OF INDONESIA AND MALAYSIA

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ABSTRACT

The entry into force of the Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (BBNJ Agreement) has generated new legal challenges for national intellectual property regimes, particularly in relation to patent exclusivity over inventions derived from marine genetic resources (MGRs). This paper examines the urgency of harmonizing patent law in Indonesia and Malaysia to ensure normative alignment with the BBNJ Agreement and the broader framework of the United Nations Convention on the Law of the Sea (UNCLOS). While patent law is traditionally founded upon the grant of exclusive private rights, the BBNJ Agreement advances principles of non-exclusive access, fair and equitable benefit-sharing, and the concept of the common heritage of mankind, thereby revealing a fundamental conceptual tension between the two legal regimes. Employing a normative legal research methodology, this study adopts statutory, conceptual, and comparative approaches to assess the extent to which the existing patent laws of Indonesia and Malaysia accommodate BBNJ obligations. The urgency of harmonization is reinforced by international treaty law, particularly Articles 26 and 46 of the Vienna Convention on the Law of Treaties, which require States Parties to perform treaty obligations in good faith and preclude reliance on domestic law as justification for non-compliance. Given that both Indonesia and Malaysia have ratified the BBNJ Agreement, the persistence of unadjusted patent regimes risks creating normative inconsistency and regulatory fragmentation. Harmonizing patent law with BBNJ principles carries strategic and political significance. Such alignment may strengthen Indonesia's and Malaysia's positions as responsible maritime States, enhance their credibility in global ocean governance, and contribute to the consolidation of maritime influence within the evolving international legal order. Ultimately, this study contends that patent law harmonization constitutes both a legal necessity and a strategic imperative in the post-BBNJ era.

Keywords: *BBNJ Agreement, Patent Law, Harmonization*

Introduction

The adoption of the Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction (BBNJ Agreement) in June 2023 marks a paradigm shift in international maritime governance (United Nations, 2023). For decades, the high seas were governed generally under the United Nations Convention on the Law of the Sea (UNCLOS). However, this framework suffered from a specific regulatory vacuum regarding Marine Genetic Resources (MGRs). Unlike mineral resources, MGRs were not explicitly covered by a benefit-sharing regime. This created a first-come, first-served reality where access was unregulated. This legal ambiguity allowed technologically advanced states to dominate exploration and commercialization. Recent studies highlight a stark monopoly where entities from developed nations control the vast majority of marine genetic patents, effectively privatizing resources that are conceptually part of the global commons (Taghizadeh & Asgarian, 2024). The BBNJ Agreement now aims to dismantle this monopoly by establishing a multilateral framework for equitable access and benefit-sharing (Oke et al., 2024).

The operationalization of the BBNJ Agreement precipitates a complex normative conflict when intersected with the global intellectual property regime. The BBNJ mandates the fair sharing of benefits derived from the Common Heritage of Humankind. In contrast, the patent system is anchored in the TRIPS Agreement and is predicated on granting exclusivity to incentivize innovation (Xu & Jin, 2025). This dichotomy creates a critical legal hazard. Without harmonization, the patenting of MGRs and their Digital Sequence Information (DSI) could bypass BBNJ obligations. Entities could extract genetic material from international waters and patent the resulting invention to shield it behind proprietary rights. This process facilitates a modern form of misappropriation where the source of the genetic material is untraced and uncompensated (Kusuma et al., 2024).

In this shifting legal landscape, Indonesia and Malaysia have positioned themselves as strategic proponents of the new regime. As biodiversity hotspots and vocal representatives of the Global South, both nations effectively championed the interests of developing states during the negotiation process (K K & Chalakkal, 2025). This move was intended to secure equitable access for developing nations (Talaperu et al., 2024). Yet, these diplomatic commitments expose a significant domestic gap. A preliminary assessment suggests that the patent laws of both nations remain structurally designed for territorial sovereignty. Specifically, Indonesia's

Law No. 13 of 2016 and Malaysia's Patents Act 1983 may lack the necessary mechanisms to address these new obligations. It is legally ambiguous whether their current disclosure requirements are robust enough to enforce extraterritorial benefit-sharing obligations or to trace inventions derived from the high seas (Noensie & Prasetiyo, 2025).

Consequently, this article specifically examines the urgency for Southeast Asian nations to adapt their legal frameworks. It seeks to bridge the gap between international maritime obligations and domestic patent frameworks. Instead of treating the two regimes as mutually exclusive, this study explores the legal adjustments necessary to ensure they are mutually supportive. To achieve this, the article addresses two primary research questions: (1) What are the perspectives of Indonesian and Malaysian patent law on the BBNJ Agreement? and (2) What are the urgencies of harmonizing patent law with the BBNJ Agreement?

Perspectives of Indonesian and Malaysian Patent Law on the BBNJ Agreement

In this geopolitical and legal equation, Indonesia and Malaysia occupy critical strategic positions as key players in the Global South. As prominent coastal states and recognized biodiversity hotspots, both nations have vested interests in preventing the misappropriation of genetic resources (Muzaka & Serrano, 2019). Furthermore, as developing nations, they stand to benefit significantly from the BBNJ's capacity-building and benefit-sharing provisions. However, a preliminary assessment suggests that the domestic patent laws of both countries—specifically Indonesia's Patent Law No. 13 of 2016 and Malaysia's Patents Act 1983—were designed primarily to protect territorial sovereignty. It remains legally ambiguous whether their existing patent disclosure requirements and novelty standards are sufficient to address inventions derived from genetic resources obtained in areas beyond national jurisdiction (Noensie & Prasetiyo, 2025).

To clarify these distinct legal approaches, Table 1 illustrates the comparative framework of patent regulations in both jurisdictions regarding genetic resources.

BBNJ Agreement	**Indonesia Patent Law** Undang-Undang No. 13 of 2016 & Undang-Undang No. 65 of 2024	**Malaysia Patent Law** Patents Act 1983 (As at 1 November 2023)
Scope		

<table>
<tr><td>Areas Beyond National Jurisdiction
Marine Genetic Resources in ABNJ</td><td>Pasal 20: Patent holders are required to make products or use processes in Indonesia.</td><td>Article 1 (2) This Act shall apply throughout Malaysia</td></tr>
<tr><td colspan="3">Exclusivity</td></tr>
<tr><td>Article 7b - Common Heritage of Mankind from UNCLOS 1982:
Article 136 - The Area and the Resource is CHM
Article 137 - Resources can’t be move/sell to private party</td><td>Pasal 1 angka 1 - A patent is an exclusive right granted by the state to an inventor for his invention in the field of technology for a certain period of time to implement the invention himself or to grant permission to another party to implement it.
Pasal 19 (1) - Patent holders have exclusive rights
Pasal 77 - Patent holders implement their patents themselves</td><td>Article 36 - Subject to other rules, the patent owner has these exclusive rights</td></tr>
<tr><td colspan="3">Open Access</td></tr>
<tr><td>Article 7c - Principle of freedom of marine scientific research, together with other freedoms of the high seas;
Notifications
Clearing House Mechanism (Data Report, Digital Sequence, and Research Utilization)</td><td>Pasal 25 ayat (2) Statement of Origin of Genetic Resources if the Invention is related to Genetic Resources
Not any arrangement regarding research publicity</td><td>37. (1) The rights under the patent shall extend only to acts done for industrial or commercial purposes and shall not extend to acts done for experimental or scientific research purposes.</td></tr>
</table>

Monetary Benefit		
Benefit Sharing Article 7d - Principle of equality and fair and equitable (balanced) benefit sharing Article 9 - b. capacity building Article 14 - Terms and conditions for benefit sharing Article 52 - Benefit Sharing Mechanism	Pasal 13 - Royalty Acceptance (2) Inventors are entitled to receive compensation for patents from non-tax state revenue sources. (6) Compensation is regulated by Ministerial Regulation.	Article 36 (1) Exclusive rights to (a) exploit the patented invention; (c) to conclude licence contracts; *no specific regulations regarding royalty

Table 1. Comparison of Indonesian and Malaysian Patent Frameworks regarding Genetic Resources

The data presented in Table 1 highlights a fundamental structural challenge regarding the granting of exclusivity. In Indonesia, the protection of genetic resources is explicitly integrated into the patent system through Law No. 13 of 2016 on Patents. Article 26 mandates that patent applicants must disclose the origin of genetic resources and traditional knowledge in their description. Theoretically, this mandatory disclosure of origin requirement aligns with the transparency goals of the BBNJ Agreement. However, a textual analysis reveals a critical limitation because the obligation is constructed solely to safeguard Indonesian sovereignty. The elucidation of Article 26 specifically aims to ensure benefit-sharing for the state or local communities within Indonesia (Talaperu et al., 2024). The law is currently silent on how to process an invention derived from Marine Genetic Resources collected in the high seas. Consequently, if an Indonesian entity patents an invention derived from international waters, the Directorate General of Intellectual Property or DJKI lacks a clear statutory basis to enforce the BBNJ global benefit-sharing protocols as the resource does not belong to the Indonesian state (Noensie & Prasetiyo, 2025).

Malaysia presents a similar yet distinct legal landscape where the criteria for exclusivity are divorced from the source of the genetic material. The primary statute, the Patents Act 1983, focuses heavily on technical patentability criteria including novelty, inventive step, and industrial applicability without explicitly mandating the disclosure of origin in the patent

application itself. Instead, Malaysia governs access to biodiversity through a specialized law, the Access to Biological Resources and Benefit Sharing Act 2017 or Act 795. While Act 795 is progressive and enforces strict Prior Informed Consent and Mutually Agreed Terms, its scope is explicitly territorial as it applies only to biological resources found within Malaysia (Arévalo García & Hernández-Trujillo, 2024). This creates a regulatory blind spot because the Patents Act 1983, specifically under Section 36(1), grants patent owners the exclusive right to exploit, assign, and license the invention once technical standards are met. Since the definition of exploitation includes making, selling, and importing products, the law effectively empowers Malaysian entities to commercialize high seas resources without any statutory obligation to prove BBNJ compliance.

This comparative analysis exposes a territorial trap in both jurisdictions. While Indonesia and Malaysia have developed defensive mechanisms to protect their own biodiversity from biopiracy, effectively acting as provider countries, their legal systems are ill-equipped to regulate their own citizens when acting as users of international resources (K K & Chalakkal, 2025). The BBNJ Agreement effectively flips their traditional role. As signatories, they must now ensure that their national patent systems can monitor compliance with international obligations, a function for which neither Law No. 13 of 2016 nor the Patents Act 1983 was originally engineered.

Urgency of Harmonizing Patent Law with the BBNJ Agreement

The harmonization of domestic patent frameworks with the BBNJ Agreement represents a fundamental imperative driven by a convergence of binding international legal obligations and critical strategic interests. As Indonesia and Malaysia navigate the transition from negotiation to implementation, the alignment of their patent laws becomes the linchpin for ensuring compliance and maximizing national benefit. Consequently, this urgency extends beyond the strict letter of the law because early and robust legal adaptation enables both nations to leverage significant strategic advantages while securing their positions as pivotal actors in global ocean governance.

1. International Legal Obligations

The foundational obligation to harmonize domestic law with international commitments is anchored in the Vienna Convention on the Law of Treaties (VCLT) 1969. Both Indonesia and Malaysia are bound by the principle of pacta sunt servanda enshrined in Article

26. This article mandates that every treaty in force is binding upon the parties to it and must be performed by them in good faith (United Nations, 1969). Good faith performance implies that states must not only refrain from acts that defeat the object of the treaty but must also take positive legislative steps to ensure its effective operation within their jurisdictions.

Crucially, the rigidity of existing domestic patent laws cannot serve as a valid defense against these international obligations. Article 27 of the VCLT explicitly states that a party may not invoke the provisions of its internal law as justification for its failure to perform a treaty. This provision is particularly relevant to the patent context. If the national patent offices were to grant a patent for an invention derived from the high seas without adhering to the BBNJ's benefit-sharing requirements, the state could not defend itself by arguing that its Patent Act was silent on the matter. Article 46 further reinforces this by establishing that a state cannot invalidate its consent to be bound by a treaty simply by arguing that the treaty violates a provision of its internal law regarding competence. Thus, the current territorial limitations of Indonesia's and Malaysia's Patent Law are legally irrelevant to the duty to comply. The burden lies entirely on the state to amend its laws.

The BBNJ Agreement itself adopts a strict stance on compliance to prevent the fragmentation of its governance regime. Article 70 of the Agreement expressly prohibits reservations, stating that "no reservations or exceptions may be made to this Agreement" unless explicitly permitted (United Nations, 2023). This no-reservation clause is critical because it prevents states from selectively accepting conservation aspects while opting out of complex benefit-sharing obligations. Indonesia and Malaysia must accept the regime as a single undertaking.

This obligation is further tightened by Article 71 which governs declarations and statements. While states are permitted to make declarations to facilitate domestic harmonization, the article strictly limits them by ensuring such declarations do not purport to exclude or to modify the legal effect of the provisions of the Agreement. This effectively closes any loophole for interpretative sovereignty where a state might try to exempt its domestic industries from benefit-sharing. Furthermore, Article 77 explicitly requires States Parties to adopt necessary legislative, administrative, or policy measures to give effect to the Agreement. Since the regulation of marine genetic resources is intrinsically linked to intellectual property rights, the harmonization of patent laws is a direct mandate to ensure the treaty's objectives are realized at the national level. (Xu & Jin, 2025).

2. Strategic Considerations

First, harmonization significantly enhances international standing and normative influence. Harmonization serves as a powerful diplomatic tool that strengthens state credibility. By rapidly adapting their patent laws to accommodate the BBNJ framework, both nations distinguish themselves from states that lag in implementation. This signals to the international community that they are responsible stewards of the ocean (Talaperu et al., 2024). Such a proactive stance also allows them to demonstrate leadership in ASEAN. As key players in the region, Indonesia and Malaysia can set a normative precedent for neighboring states to shape a coherent regional approach to ocean governance. Strict implementation also helps in reducing structural power asymmetries. The current intellectual property regime often favors technologically advanced states. By embedding BBNJ compliance into their patent laws, these nations contribute to a global standard that demands transparency. This levels the playing field and challenges the historical monopoly of developed nations over marine genetic resources (K K & Chalakkal, 2025).

Second, legal alignment is a prerequisite for optimizing access to institutional and cooperative mechanisms. The BBNJ Agreement is not merely a restrictive instrument. It is also a distributive one. Legal alignment is a prerequisite for optimizing access to the treaty's benefit-sharing architecture. Regarding monetary benefits, the Agreement establishes specific funding mechanisms derived from the commercialization of MGRs. If domestic patent systems fail to enforce traceability, national entities may be administratively sidelined from these funds because verifying the origin of resources becomes impossible (Oke et al., 2024). Equally important are the non-monetary benefits. The Agreement mandates maritime research collaboration, technology transfer, and capacity-building initiatives. Developing states that have harmonized their laws to ensure legal certainty are likely to be preferred partners for international scientific consortia. Incompatibility risks isolating Indonesian and Malaysian researchers from valuable global networks (Kusuma et al., 2024).

Finally, early harmonization provides legal certainty and preventive governance. Harmonization provides a crucial mechanism for preventive governance. The normative tension between the patent regime's focus on exclusivity and the BBNJ's principle of the Common Heritage of Humankind creates a fertile ground for disputes. Without clear rules, patents granted for marine inventions could be challenged for misappropriation or lack of prior informed consent. By proactively aligning patent governance through the introduction of

mandatory disclosure of origin for extraterritorial resources, both states can prevent future legal conflicts (Taghizadeh & Asgarian, 2024). This creates a stable regulatory environment that encourages sustainable innovation. Investors and researchers prefer jurisdictions with clear compliance pathways over those with ambiguous legal risks. Thus, harmonization ensures that the state remains compliant with its international obligations while fostering an ecosystem conducive to responsible biotechnology development (Xu & Jin, 2025).

Pathways for Harmonization of Patent Exclusivity

1. Legislative Reform

The most critical legislative step is the incorporation of a mandatory "disclosure of origin" requirement for MGRs sourced from areas beyond national jurisdiction. For Indonesia, this does not require a complete overhaul of the patent regime but rather a targeted amendment to the elucidation of Article 26 of Law No. 13 of 2016. The current definition, which limits disclosure to domestic resources, must be expanded to explicitly include MGRs and Digital Sequence Information (DSI) obtained from the high seas. Similarly, Malaysia should amend the Patents Act 1983 to include a specific provision linking patentability to the lawful access of genetic resources. Alternatively, the scope of the Access to Biological Resources and Benefit Sharing Act 2017 could be widened to cover the utilization of foreign and high-seas resources by Malaysian entities. This legal adjustment ensures that patent applicants must prove they have complied with the BBNJ's benefit-sharing protocols before securing exclusive rights.

2. Institutional Capacity Building

The harmonization process requires a strategic realignment of the national intellectual property offices which are the Directorate General of Intellectual Property (DJKI) in Indonesia and the Intellectual Property Corporation of Malaysia (MyIPO). These agencies can no longer operate in isolation. They must establish formal coordination mechanisms with their respective national focal points for the environment and foreign affairs. This synergy is essential to connect the national patent registration systems with the BBNJ's global Clearing-House Mechanism. By integrating these systems, patent examiners can verify whether an applicant has truthfully disclosed the origin of marine genetic resources. Furthermore, both governments must invest in technical capacity building. Patent examiners need specialized training to

identify inventions derived from MGRs and DSI. Without this institutional readiness, the legal mandates for benefit-sharing will remain unenforceable on the ground.

Conclusion

The legal conflict examined in this study arises from a fundamental normative tension between the BBNJ Agreement and national patent law. While the BBNJ Agreement promotes open access and equitable benefit-sharing under the principle of the common heritage of humankind, patent law is inherently structured around granting exclusive private rights to inventors. This study confirms that such tension is exacerbated by the current legal frameworks in Indonesia and Malaysia. Specifically, Indonesia's Patent Law No. 13 of 2016 and Malaysia's Patents Act 1983 remain constrained by a territorial trap as they lack the specific mechanisms required to regulate Marine Genetic Resources originating from the high seas.

The urgency of harmonizing these conflicting regimes is grounded in both legal obligation and strategic necessity. From a legal perspective, Indonesia and Malaysia are bound by the principle of pacta sunt servanda to implement the BBNJ Agreement in good faith. Consequently, they cannot rely on domestic patent law deficiencies to justify inconsistencies with the international no-reservation clause. From a strategic perspective, harmonization strengthens international credibility and reduces structural power asymmetries in the utilization of marine genetic resources. Moreover, early alignment promotes legal certainty and ensures that both nations can fully access the cooperative and benefit-sharing mechanisms established under the BBNJ framework.

To resolve these challenges, this article recommends a two-pronged approach encompassing legislative reform and institutional synergy. First, Indonesia should amend the elucidation of Undang-Undang No. 13 of 2016 and Undang-Undang No.65 of 2024 to explicitly expand the mandatory disclosure of origin requirement to include extraterritorial resources. Similarly, Malaysia must integrate a corresponding disclosure provision directly into the Patents Act 1983 or widen the scope of the Access to Biological Resources and Benefit Sharing Act 2017. Second, successful implementation requires that the Directorate General of Intellectual Property (DJKI) and the Intellectual Property Corporation of Malaysia (MyIPO) establish formal coordination mechanisms with national environmental focal points. By

bridging these gaps, Indonesia and Malaysia can transform their patent systems from instruments of territorial defense into robust mechanisms for global marine conservation.

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