



Fairness of benefit distribution for international seabed resources (Common Heritage of Mankind) under the International Seabed Authority (ISA)

Rizka Ramadhani Sabila Yassara, Azzahra Nafisah Akbar, Grishella Fernandika Dwi Setyawan, Chealsy Olivia C P, Ria Tri Vinata

Universitas Wijaya Kusuma, Surabaya, Indonesia

Abstract

Deep seabed mineral resources located in the Area beyond national jurisdiction are increasingly framed as strategic inputs for modern industrial supply chains, yet their utilization raises a persistent distributive justice dilemma under international law. This article examines whether the benefit sharing architecture administered by the International Seabed Authority aligns with the Common Heritage of Mankind principle as articulated in Part XI of UNCLOS 1982 and the 1994 Implementing Agreement. Using a normative doctrinal approach, the study analyzes relevant treaty provisions, ISA regulatory instruments, and an illustrative case involving the extension of an exploration contract in the Clarion Clipperton Zone. The analysis finds that current benefit sharing is more developed at the level of normative design than measurable outcomes, with monetary distribution remaining uncertain while non-monetary benefits are largely channelled through training and capacity building obligations. Key constraints include regulatory incompleteness, technological and financial asymmetries between states, governance risks that can weaken redistributive intent, and unresolved questions of environmental responsibility. The article argues for a more binding, transparent, and accountability-oriented framework that operationalizes equitable benefit sharing while strengthening environmental safeguards and meaningful participation for developing states.

Keywords: Common Heritage of Mankind, International Seabed Authority, deep seabed mining, benefit sharing, developing states, UNCLOS 1982

Introduction

The ocean, which covers more than two-thirds of the Earth's surface, holds enormous potential for natural resources, including mineral resources located on the international seabed or the Area, which is the area of the seabed and underlying land that lies beyond the national jurisdiction of any country. In recent decades, global attention to the Area has increased because it is believed to contain high-value minerals such as nickel, cobalt, copper and manganese that are needed in modern industrial supply chains, including battery technology and energy transition. On the one hand, the need for critical minerals is driving countries and corporations to accelerate deep-sea exploration. On the other hand, this increased activity raises the not-so-simple international legal issue of how to ensure that resource utilisation in this global region does not turn into a one-sided competition that only benefits the technologically and capital-strong ^[1].

The principle that underpins the regulation of the Area is the Common Heritage of Mankind. Through this principle, international seabed resources are positioned as the common heritage of humankind so that they cannot be owned or claimed exclusively by a particular country. The principle demands that resource management be carried out for the benefit of all humanity, while paying special attention to the needs of developing countries. Within the framework of the 1982 United Nations Convention on the Law of the Sea, this principle is reinforced in Section XI, which asserts that activities in the Area should be collectively regulated through an international authority. This framework then gave birth to the International Seabed Authority or ISA which is mandated to organise, regulate and control exploration and exploitation of mineral resources in the

Area, including ensuring the protection of the marine environment and equitable benefit sharing ^[2].

In the context of the Common Heritage of Mankind, fairness in the distribution of benefits is a key word. Fairness here is not only understood as the sharing of financial benefits, but also includes access to knowledge, capacity building and equal participation opportunities for all countries. The problem is that the ability to conduct deep-sea exploration and exploitation relies heavily on high technology, oceanographic data, research and substantial funding. This leaves developed countries and well-capitalised business entities in a more dominant position, while many developing countries tend to be passive beneficiaries. The debate then arises as to how far the policies and practices of the ISA have truly reflected the mandate of distributive justice inherent in the principle of humanity's common heritage ^[3]. The question of justice is increasingly relevant when global discussions show that there are still a regulatory vacuum and uncertainty in the transition phase from exploration to exploitation. Various studies in national journals highlight that the dynamics of drafting implementing regulations, including the Mining Code tool, can affect the direction of governance and benefit sharing mechanisms. If regulations more quickly accommodate the interests of technologically ready parties, the risk of benefit inequality will be stronger. Conversely, if the ISA enforces a more inclusive institutional design, then the Common Heritage of Mankind principle can serve as a corrective instrument so that global resource utilisation still reflects the common interest ^[4].

The discussion on benefit distribution is also inseparable from the protection of the marine environment. Exploitation of seabed minerals has the potential to cause long-term ecological impacts that are difficult to reverse, leading to

demands that the ISA apply strong precautionary principles at every stage of activity. At the international level, the new agreement on Biodiversity Beyond National Jurisdiction (BBNJ) provides additional context as it emphasises the importance of environmental impact assessment, capacity building and technology transfer for activities beyond national jurisdiction. A number of national papers consider BBNJ to be a temporary safety layer or normative complement when there is still a regulatory vacuum in the seabed mining regime, while emphasising that fairness in benefit sharing needs to go hand in hand with environmental protection^[5].

From Indonesia's perspective, this issue is also important because Indonesia is an archipelago with strategic interests in marine affairs, resource governance and maritime diplomacy. Although the focus of this research is on the Area beyond national jurisdiction, national discourses show that an understanding of marine zoning, division of authority, and differentiation between areas within jurisdiction and outside jurisdiction remain relevant to develop consistent positions and policies at the global level. A review in a national journal even emphasises the need to reformulate the regulation of subsea mining in the national legal framework so that Indonesia has conceptual readiness when dealing with deep-sea mining issues, including in relation to international regimes governing the Area^[6].

Based on some of these explanations, the core problem examined in this article lies in the gap between the ideal of the Common Heritage of Mankind and the reality of the implementation of benefit distribution in practice. At the norm level, UNCLOS 1982 and the ISA mandate have provided direction that benefits should be shared equitably, especially by considering the needs of developing countries. However, at the implementation level, questions remain about the mechanisms used, the constraining factors that make benefits unequal, and the consistency of ISA policies towards the principle of the common heritage of humankind. In this context, this article positions itself as a normative study that examines how the institutional design of ISAs and their governance practices relate to the goal of distributive justice, while also examining the weak points that lead to inequality between actors with high capacity and countries with limited capacity^[7].

More specifically, this article discusses the benefit distribution mechanism of international seabed resources under the ISA, then identifies the factors that constrain the realisation of equity and finally assesses the consistency of ISA policy and implementation with the principles of the Common Heritage of Mankind. This focus was chosen because the issue of benefit distribution is the normative core of the Area's regime. Without distributive justice, the principle of the common heritage of humankind risks becoming ineffective jargon. In addition, the increasing interest in the exploitation of deep-sea resources makes this discussion no longer purely theoretical but directly related to the direction of international legal development, North South relations, and the legitimacy of international institutions in managing global resources^[8].

This study contributes to the effort of stringing together three things at once. First, it explains coherently the relationship between the Common Heritage of Mankind principle, the authority of the ISA, and the concept of fairness in benefit distribution. Second, it shows how inequalities in technological capacity and funding can

influence the design and practice of benefit sharing, so that the issue of justice is not simply understood as the sharing of results, but also as equal access from the early stages of activities. Third, it situates the ISA discourse within broader global governance developments, including the emergence of the BBNJ framework as an additional reference for environmental protection, capacity building and technology transfer. Thus, this article is expected to provide a more complete understanding of the challenges of realising justice in the Area, as well as a discussion for strengthening the position of developing countries in the international seabed regime.

Methodology

This research uses a normative juridical approach with the main character of doctrinal analysis of legal sources and official documents governing the governance of the Area, especially related to the distribution of benefits and the principle of Common Heritage of Mankind. The normative approach was chosen because the focus of the research is on the meaning of norms, the authority of institutions, and the consistency of policy implementation with international legal principles, not on measuring the behaviour of actors through surveys or experiments. This research model is commonly used in legal studies to organise, interpret and assess the suitability of rules and practices based on relevant legal materials^[9]. On the other hand, this research recognises that doctrinal studies need to clearly explain their sources, reading, and analytical boundaries so that the arguments built are not just opinions, but the results of traceable reasoning^[10].

The types of data used are primary, secondary and tertiary legal materials. Primary legal materials include the provisions of UNCLOS 1982 Part XI and related articles, the 1994 Implementing Agreement, as well as official ISA documents such as exploration regulations for regulated mineral commodities, reports, Council decisions, and policy publications on benefit sharing mechanisms. Secondary legal materials are derived from national and international journal articles, reference books on the law of the sea, and institutional reports relevant to the topic of international seabed mining governance. Tertiary legal materials were used on a limited basis to assist in the search for terms and initial references but were not used as the main basis for drawing conclusions.

The material collection technique was carried out through literature studies and document searches. Each material collected was then inventoried, classified by theme, and then arranged in an analytical framework according to the formulation of the problem, namely the benefit distribution mechanism under the ISA, obstacles that hinder distribution justice, and the consistency of ISA policies with the principles of the Common Heritage of Mankind. To strengthen the link between norms and practices, this research also uses a document-based case approach by examining examples of contracts and decisions related to exploration extensions announced by the ISA, to illustrate how access and utilisation opportunities can be concentrated in certain actors.

Data was analysed qualitatively using legal interpretation and doctrinal reasoning techniques. The research applied grammatical interpretation to understand the wording of the norm, systematic interpretation to see the relationship between provisions in the UNCLOS regime and the ISA

mandate, and teleological interpretation to assess the purpose of the principle of common heritage of mankind in the context of distributive justice. The results of these interpretations are then tested through an evaluation framework that focuses on distributive justice, access to participation, and the forms of monetary and non-monetary benefits promised, including capacity building. The research also drew on legal research methodological guidelines that emphasise the importance of disaggregating normative approaches and using argumentation consistent with the legal materials analysed.

The research also made use of legal research methodological guidelines that emphasise the importance of disaggregating normative approaches and using argumentation that is consistent with the legal materials analysed^[8]. From this series of stages, conclusions are drawn as answers to the problem formulation as well as the basis for normative recommendations to strengthen the design of a more equitable distribution of benefits under the ISA.

Results and Discussion

Implementation of the International Seabed Resources Benefit Distribution Mechanism under the ISA

The results of the study show that the implementation of the benefit distribution mechanism under the International Seabed Authority or ISA is still stronger at the stage of normative regulation and policy design, rather than at the stage of real and measurable benefit distribution. At the conceptual level, the international seabed regime departs from the principle of the Common Heritage of Mankind, which places the Area as an area that cannot be controlled by one country, and must be managed for the benefit of all mankind. This framework requires ISA not only to issue activity licences, but also to ensure that the results of these activities are shared fairly, including by paying special attention to developing countries. Wahyudi explained that the ISA mandate in UNCLOS 1982 emphasises the obligation to translate the principle of common heritage into operational policies, so that the success of this regime is not simply judged by the number of exploration contracts, but by how fairly and inclusively the benefits are felt by all countries^[11].

In practice, the most visible benefit distribution mechanisms currently emerge through two channels, namely non-monetary benefits and potential benefits. Non-monetary benefits are seen through the contractor's obligation to arrange training programmes for citizens from developing countries, transfer of technical knowledge, and disclosure of certain data related to exploration activities. This training obligation is important because it acts as a bridge so that developing countries are not just spectators but can build human resource capacity to engage in deep-sea science and environmental governance. From the perspective of the Common Heritage of Mankind, this form of benefit is in line with the idea that justice is not just about money, but also about equal opportunities for development. Murti and colleagues emphasise that the utilisation of deep seabed areas as common heritage must go hand in hand with preservation and capacity building, because if only exploitation develops without equitable capacity, then the principle of common heritage will lose its social meaning^[12].

Meanwhile, financial benefits, often referred to as the core of benefit sharing, are still in the formulation phase.

UNCLOS requires ISAs to develop mechanisms for sharing financial and other economic benefits from activities in the Area, but financial realisation depends on when commercial exploitation commences and when benefit sharing rules are finalised. This is where the implementation of benefit sharing mechanisms faces the key challenge of regulatory uncertainty. In simple terms, exploration activities generate data and experience, but do not automatically result in income that can be shared. As a result, claims that benefits have been distributed are still difficult to prove empirically, as what can be observed today are mostly policy instruments, reports, and draft benefit-sharing formulas.

These findings suggest that the ISA's role in the current phase is predominantly as a regulator and coordinator of exploration activities, rather than a global revenue distributor. Nonetheless, this phase is important because the design of the current mechanism will determine whether, once exploitation begins, the distribution of benefits will be fair or reinforce inequality. In terms of distributive justice, an inappropriate design will allow the technologically superior parties to gain multiple benefits: access to territory, access to data, technical experience, and later access to revenue. Developing countries risk being left behind because they only enter when the benefit structure is already established. Safaat and Yono emphasise that in marine resource management, management actors must play an active role to ensure equitable welfare, rather than simply allowing market mechanisms or the power of certain parties to dominate^[13]. Although their study departs from the national context and local wisdom, the main idea is relevant to be read in the global context, namely that resource governance demands alignment with justice, not false neutrality that benefits the most powerful actors.

In terms of substance, the implementation of the common heritage principle by the ISA is also related to the obligation to protect the environment. Activities in the Area should not only be judged by economic potential, but also by ecological risk. If the environmental damage incurred is greater than the benefits shared, then normatively it is difficult to say that the activity really brings benefits to humanity. Therefore, the benefit distribution mechanism should be read as a package with risk management, prudence and accountability. Septiarahma highlights the importance of legal certainty regarding responsibility for damage caused by deep sea mining, because without certainty, the state and the international community risk bearing environmental impacts without adequate recovery instruments^[14]. This indicates that the implementation of fair benefit sharing is not only about who gets what, but also who bears the risk, and how compensation and recovery are organised when damage occurs.

Factors Constraining the Realisation of Benefit Sharing Equity of International Seabed Resources

The analysis shows that the constraints to realising benefit sharing equity under the ISA are multiple, ranging from regulatory barriers, capacity constraints, to political and environmental barriers. The first obstacle is the lack of clarity and regulatory gaps that make the benefit sharing mechanism not fully operational. When the rules for payment formulation, fund governance, and distribution criteria are not finalised, distributive justice remains a normative promise. In this situation, it is difficult for developing countries to estimate what benefits they will

realistically receive, while powerful actors can continue to gain knowledge and experience through exploration. This condition also affects the legitimacy of the ISA because international institutions are considered successful not only when the procedures work, but when the mandate of distributive justice is realised. Wahyudi emphasised that the implementation of the Common Heritage of Mankind requires ISA to operationalise the principle, so that stagnation or unclear rules can weaken the achievements of the regime that should be collective ^[15].

The second obstacle is the asymmetry of technical and scientific capacity between countries. Exploration and exploitation of deep-sea minerals require research vessels, seafloor mapping technology, robotic devices, laboratories and highly skilled human resources. When this capacity is unequal, developing countries are at a disadvantage. They may receive financial benefits in the future but remain behind in the non-monetary benefits that determine their ability to participate equally. Murti and colleagues emphasise that deep seabed areas as a common heritage must be harnessed with an approach that maintains a balance between utilisation and conservation and opens more equitable opportunities for all parties. If only technologically strong countries can operate, the common heritage turns into a source of accumulation by a limited group.

The third constraint relates to political interests and potential institutional capture. At the global level, the ISA faces pressure from many actors, ranging from sponsor countries, companies, to the economic interests of the energy transition. The risk arises when decisions that should emphasise redistribution and prudence instead tend to prioritise the acceleration of activities, resulting in less distributive justice. In the logic of governance, international institutions may appear neutral, but decision-making practices can favour the most active, best prepared or most influential actors. Sfaat and Yono provide an important reminder that marine resource management for equitable welfare requires a strong controlling role, because if management follows the dominance of certain parties, the goal of justice is difficult to achieve ^[16]. In the context of the ISA, this means that mechanisms for transparency, accountability and participation of developing countries must be strengthened so that decisions are not hijacked by narrow interests.

The fourth constraint is the limitations of real funding sources, which depend heavily on the economic viability of the activity. If the exploitation activity turns out to be expensive, high-risk, or does not generate sufficient margins, then shared funding sources can be minimal. This leads to a contradictory situation. Developing countries are waiting for financial benefits, but those benefits are not necessarily significant. At the same time, environmental risks remain. Thus, distributive justice cannot simply be assumed to be achieved when exploitation begins, as the magnitude of benefits depends on many uncertain variables. The fifth constraint is environmental concerns and the uncertainty of long-term impacts. Deep-sea ecosystems are unique, vulnerable and not fully understood. Sediment plume impacts, habitat disruption and potential loss of biodiversity can cause irreversible ecological damage. If these losses occur, who bears the cost of recovery becomes a big question. Septiarahma emphasises that legal certainty regarding responsibility for damage caused by deep sea

mining is very important, because without certainty, environmental protection is weakened and benefit sharing is not proportional to the burden of risk that the global community may bear ^[17]. In the context of fairness, the principle is simple, benefits should not be shared without considering the costs and risks that may arise.

The sixth obstacle is the difficulty of valuing and measuring non-monetary benefits. Technology transfer, access to scientific data, training programmes and capacity building are difficult to value in economic terms. As a result, when developing countries receive training quotas or capacity building programmes, it is not necessarily the case that these benefits are truly equivalent to the economic benefits that contractors gain through access to territory and data. This lack of clarity in measurement makes benefit-sharing negotiations unbalanced, as powerful parties may consider training to be a major contribution, while developing countries may consider it insufficient to catch up.

The seventh obstacle is the issue of intellectual property and technology transfer. In the industrialised world, deep-sea mining technology can be protected by patents, trade secrets and strict contracts. When technology is strongly protected, technology transfer becomes difficult even though it is expected in principle. If technology transfer stops at basic training without access to core technologies, it remains difficult for developing countries to build self-reliance. In the perspective of the Common Heritage of Mankind, this condition is a serious test because common heritage demands meaningful, not symbolic, benefits. Wahyudi pointed out that the implementation of this principle should create fair and non-discriminatory access, so technology and access barriers should be an important concern in ISA policy.

The China Ocean Mineral Resources Research and Development Association COMRA contract as an Illustration of Implementation

A review of the COMRA exploration contract provides a concrete illustration of how access and opportunities in the Area can be concentrated in certain actors, and how benefit sharing is still predominantly potential. COMRA is one of the entities that has long been involved in the exploration of polymetallic nodules in the Clarion Clipperton Zone. The extension of the exploration contract shows continued access to the work area and strengthens the position of actors who already have experience and support from the sponsoring country. In the logic of distributive justice, this fact of continued access is important because exploration experience serves as strategic capital to move into the exploitation phase. If this access continues to revolve around the same group of contractors, developing countries that do not have strong sponsors could potentially be left further behind.

At the same time, the COMRA case also shows that the distribution of financial benefits cannot be evaluated in real terms because the activity is still in the exploration phase. This makes the fairness of benefit distribution easier to read through non-monetary indicators, especially training programmes for citizens from developing countries. In ISA documents and practices, contractors are required to propose training programmes, and the programmes become an inherent part of the contract. Normatively, this obligation is a form of implementation of the Common Heritage of Mankind as it shares knowledge and builds capacity.

However, at the evaluation level, the question is how deep and how broad the training is. Does the training provide enough skills to build technical independence, or does it only provide basic competencies that do not change the bargaining position of developing countries?

When linked to Wahyudi's research, training and capacity building programmes are evidence that the ISA seeks to implement the principle of shared heritage through non-monetary benefit channels, but such efforts need to be followed by mechanisms that ensure the training contributes to meaningful participation, not just fulfilling administrative obligations. Murti also places seabed area utilisation within the framework of CHM, which demands preservation and sustainability. Therefore, training programmes should ideally teach not only exploration techniques, but also the ethics of environmental protection, impact assessment and monitoring. Thus, the capacity of developing countries is not only to participate in mining, but also to oversee fair and sustainable governance.

The COMRA case is important to show that the issue of benefit sharing is not just a matter of sharing money after exploitation, but also a matter of distributing access from the start. When exploration contracts are extended, the same actors get more time to collect data, build economic models, test technologies and prepare for the move to exploitation. Developing countries that do not participate in these activities will find it increasingly difficult to catch up. This is where distributive justice needs to be read as procedural justice and participatory justice. Procedural justice demands transparency and accountability in the process of contracting, evaluating renewals, and monitoring the implementation of training obligations. Participatory justice demands that developing countries have wider opportunities to participate in activities, for example through partnership schemes, more open access to data, or training quotas that are structured based on capacity needs rather than simply based on contractor offers.

A broader view also provides a new perspective where, the COMRA case also emphasises the importance of discussing responsibility for environmental damage. While exploration is different from exploitation, the exploration phase still involves intervening in ecosystems and collecting environmental data. If exploitation is carried out in the future, the risk of damage will increase. Septiarahma emphasised the urgency of legal certainty in regulating responsibility for damage caused by deep sea mining, because without clarity, the discourse of benefit sharing can become unequal. In the worst situation, economic benefits are enjoyed by certain parties, while the costs of environmental restoration are borne by the global community. This is clearly contrary to the idea of shared heritage. Thus, the discussion of the COMRA contract should be read not only as evidence of large actor access, but also as a reminder that equitable governance must combine benefit distribution, risk control, and strict accountability mechanisms.

Through the various discussions that have been presented, the review results point to analytical evidence that the ISA has a normative basis for the equitable distribution of benefits and has partially implemented this through non-monetary benefits such as training. However, regulatory constraints, capacity gaps, political dynamics and environmental uncertainties mean that substantive distributive justice cannot yet be assessed as achieved. To

strengthen consistency with the Common Heritage of Mankind, the ISA needs to ensure that benefit sharing mechanisms are operational, measurable, and accountable, and allow for more meaningful participation by developing countries, from the exploration phase through to exploitation.

Conclusion

Based on the results of the analysis, it can be concluded that the benefit distribution mechanism of international seabed resources under the International Seabed Authority has not fully realised the goal of justice as desired by the principle of Common Heritage of Mankind. Normatively, UNCLOS 1982 has affirmed that the Area is managed for the benefit of all mankind with special attention to developing countries, and the mandate is played by the ISA through exploration regulations and supporting policies. However, at the implementation stage, the current distribution of observable benefits is still dominated by non-monetary benefits such as training and capacity building programmes, while financial benefits are still dependent on the certainty of exploitation regulations and the realisation of commercial activities. This makes it impossible to robustly prove that the benefits are fair and equitable because the outcomes are not yet in the form of measurable global revenues.

The study also shows that the main obstacle lies in the imbalance of technological and financial capacity that creates asymmetry in access since the exploration phase. Developed countries and corporations backed by capital and technology have greater opportunities to secure contracts, control data and build experience, while developing countries risk being left behind and are passive beneficiaries. The illustration of the COMRA exploration contract extension shows how large entities can maintain significant access in strategic areas such as the Clarion Cliperton Zone, while the distribution of substantial benefits to developing countries is still potential and has not yet shown a clear equalisation impact.

Thus, the ISA policy can be considered formally consistent with the Common Heritage of Mankind principle, but substantive consistency is still inadequate because the benefit sharing mechanism is not yet fully operational, measurable and binding. If institutional reforms, transparency and benefit sharing formulas are not strengthened, there is a risk of weakening the legitimacy of the ISA and continuing injustice in the governance of deep-sea resources that should belong to the common people.

References

1. Putra DRD. Criticism of deep-sea mining and the ISA regulatory void: BBNJ agreement as a temporary protection mechanism. *Awang Long Law Review*, 2025, 8(1).
2. Syofyan A, Natamiharja R, Aida M, Aini DC, Daryanti, Januarti RP. Discourse enterprise in natural resource management for the common heritage of mankind. *Indonesian Journal of International Law*, 2023, 21(1). doi:10.17304/ijil.vol21.1.2
3. Nugraha A, Nashriana, Ridwan. Legal issues of deep seabed mining in the implementation of the precautionary principle and BBNJ agreement: Indonesia's perspective. *Jurnal Penelitian Hukum De Jure*, 2025;25(3):233–248. doi:10.30641/dejure.2025.v25.233-248

4. Umam I, Risnain M, Zunnuraeni. Conservation of biodiversity exploitation of natural resources in international seabed areas based on BBNJ agreement. *Mataram Journal of International Law*, 2024, 2(1).
5. Puspitawati D, Putra TM, Wardana RV. Reformulasi pengaturan penambangan bawah laut di wilayah perairan Indonesia. *Jurnal Magister Hukum Udayana (Udayana Master Law Journal)*, 2021;10(4):716–739. doi:10.24843/JMHU. 2021.v10. i04.p05
6. Tan D. Metode penelitian hukum: Mengupas dan mengulas metodologi dalam menyelenggarakan penelitian hukum. *NUSANTARA: Jurnal Ilmu Pengetahuan Sosial*, 2021, 8(8).
7. Theil S. Carefully tailored: Doctrinal methods and empirical contributions. *Oxford Journal of Legal Studies*, 2025, 45(4).
8. Sukmawan YA, Damayanti D. Metode penelitian hukum normatif dan empiris sebagai strategi penguatan perspektif kajian ilmu hukum. *Notary Law Journal*, 2025;4(3):114–128.
9. Wahyudi D. Implementasi prinsip common heritage of mankind oleh International Seabed Authority menurut UNCLOS 1982. *Jurnal Ilmiah Mahasiswa Hukum (JIMHUM)*, 2021, 1(3).
10. Murti KS, Rebala LTS, Trihastuti N. Pemanfaatan dan pelestarian kawasan dasar laut dalam sebagai common heritage of mankind menurut UNCLOS 1982. *Diponegoro Law Journal*, 2023, 12(2).
11. Safaat R, Yono D. Peran negara dalam pengelolaan sumber daya kelautan berbasis kearifan lokal untuk kesejahteraan yang berkeadilan. *Legality: Jurnal Ilmiah Hukum*, 2017;25(1):22–43.
12. Septiarahma F. Kepastian hukum dalam pengaturan tanggung jawab atas kerusakan akibat deep-sea mining di laut dalam. *Ranah Research: Jurnal Multidisciplinary Research and Development*, 2025;7(5):3220–3228.
13. Merdekawati A, Triatmodjo M, Hasibuan T. The importance of the common heritage of mankind principle in the regulation of the Area regime and its development. *Indonesian Journal of International Law*, 2024, 22(3). doi:10.17304/ijil. vol22.3.927
14. Vinata RT. Power of sharing sumber daya kelautan Republik Indonesia. *Legality: Jurnal Ilmiah Hukum*, 2016;24(2):213–223.
15. Nappoe JAE, Vinata RT. Legal efforts of the Indonesian government for the protection of marine resources due to damage to marine ecosystems by fishermen. *International Journal of Current Science Research and Review*, 2024;7(6):4494–4500. <https://doi.org/10.47191/ijcsrr/V7-i6-101>
16. Basmeh I, Maulana MD, Umpenawany ASR, Vinata RT. The authority of the Marine Security Agency Republic Indonesia in enforcing the law of the sea in Indonesia. *International Journal of Humanities and Social Science Research*, 2025;11(4):13–18.
17. Vinata RT, Kumala MT, Setyowati PJ. Marine biodiversity joint exploitation agreement in the border area of the continental shelf between coastal states. In *Proceedings of the 2nd International Conference on Science, Technology, and Environment (ICoSTE 2020): Green Technology and Science to Face a New Century*. SCITEPRESS – Science and Technology Publications, Lda, 2022, 153–156. <https://doi.org/10.5220/0010798600003317>