German Law Journal (2025), pp. 1–32
doi:10.1017/glj.2025.28

CAMBRIDGE UNIVERSITY PRESS

ARTICLE

Justice on the Seafloor: A Critical Appraisal of the Extension of Sovereign Rights to Natural Resources on the Continental Shelf

Petra Gümplová

Friedrich Schiller University Jena, Jena, Germany
Email: petra.guemplova@uni-jena.de

Abstract

This Article looks critically at the extension of sovereign rights to natural resources into the ocean commons. It focuses specifically on the continental shelf. I first account for the novelty of the continental shelf claims and the legal regime set by United Nations Convention on the Law of the Sea (UNCLOS). Then, I look at the structure, scope, and practice of sovereign rights to natural resources and assess the consequences of their application to this legally constructed underwater resource domain attached to the territory of a coastal state. The overall argument of this Article is that in the current form, sovereign rights do not promote justice in the ocean commons. Three distinct problematic consequences from the perspective of justice are analyzed: Distributive inequality, unjust politics of resource sovereignty, and legal and economic reification of marine ecosystems. In the conclusion, I raise the question of the role of sovereignty in the global commons and how to restructure it so that it meets the demands of safeguarding the ocean commons as an environmental planetary domain. The Article argues for the possibility of rethinking sovereignty in terms of Earth Trusteeship of the global commons based on a normative concept of sovereignty as trusteeship of humanity and the environment recently proposed in the philosophy of international law.

Keywords: Continental shelf; sovereign rights; natural resources; inequality; global justice

A. Introduction

In July 2007, the Russian polar research vessel, Akademik Fedorov, left Saint Petersburg to embark on a polar expedition, organized as a part of the Russian program for the 2007–2008 International Polar Year. In Baltiysk, a seaport town in the Kaliningrad district, the crew took aboard two deep submergence vehicles: MIR. A month later, on August 2, 2007, the two small submarines descended more than four kilometers under the ice cap to the ocean floor at the geographic North Pole to collect water and sediment samples. MIR-1 also deposited a time capsule with a message for future generations and a one-meter large titanium Russian flag on the seabed. This widely publicized act was meant to symbolically advance Russia's application for an extended continental shelf and its claim that it reaches the North Pole.

Continental shelf is a term from marine geography referring to the submerged prolongation of the land mass. Sometimes called the continental margin, it comprises the shallow edge of the continent that lies under the water—the continental shelf, typically in a depth of 200 meters or less—the steep continental slope, and the continental rise, which ends with a break into the abyssal plain of the deep seabed. Geologically, the shelves are domains with vast repositories of sediments

containing a major chunk of the world's hydrocarbon reserves.[1] The continental shelf is also a juridical concept defined in the United Nations Convention on the Law of the Sea (UNCLOS)[2] as a zone of exclusive sovereign rights. Within the continental shelf, the sovereign state has rights to natural resources on the seabed and the subsoil of the submarine areas that extend beyond the coastal state's territorial sea to a distance of 200 nautical miles from the baseline—or further. States seeking to extend the outer limits of their continental shelf beyond the 200 nautical mile boundary are required to submit the application to the Commission on the Limits of the Continental Shelf—an international body of experts elected by the state parties to UNCLOS that makes recommendations regarding the breadth of a coastal nation's continental shelf.

The application must be supported by comprehensive scientific data proving that there is an extended continental shelf attributable to an applicant state. Russia spent more than two decades gathering geomorphological, geological, and bathymetric data and submitted several applications to the Commission on the Limits of the Continental Shelf. In February 2023, the bulk of Russia's submission concerning the Arctic seabed was recognized as valid by the Commission.[3] The recognized area comprises around 1.7 million km^2—about one-tenth of Russia's territorial size—and extends along the underwater Lomonosov Ridge beyond the North Pole into Denmark's (Greenland's) and Canada's exclusive economic zones. It overlaps with their extended continental shelf applications that have not yet been processed by the Commission on the Limits of the Continental Shelf. Where the shelf boundaries will be drawn will ultimately be an outcome of bilateral negotiations or resolved by an international tribunal. What is certain, however, is that in the near future, the seabed in the Arctic Ocean will be almost completely parceled out among Arctic littoral countries. Each of them will attach an additional large domain of exclusive sovereign rights over valuable natural resources to its already vast territory and natural wealth.

Efforts to extend the continental shelf and delineate its boundaries, often disputed by neighboring countries, currently occur in all the world's oceans and around all continents except Antarctica. Arguably, this process of the division of the ocean floor is one of the most momentous international reforms with far-reaching distributive consequences and ramifications for the governance of the oceans. It is part of a profound reconstitution of the ocean commons, from the centuries-long open-access regime of the free sea towards a new system of multidimensional uses of marine space through a variety of resource regimes. Together with the extension of the territorial sea and the establishment of exclusive economic zones, the continental shelf reform also represents a substantial extension of exclusive sovereign rights to natural resources beyond state territories.

It is impossible not to recognize the profound change the spatial extension of sovereign rights involves. As Andreas Østhagen points out, in the span of only a few decades, states went from controlling the narrow strip of territorial sea, usually just three nautical miles, to seizing control over natural resources in the water column to the distance of 200 nautical miles or 370 kilometers, from the coast and up to 350 nautical miles on the seafloor.[4] By virtue of the extension of sovereign rights to marine natural resources, states now control 57% of the Earth's surface and nearly 40% of the ocean.[5] Except for the deep seabed and the high seas, most areas on Earth with valuable natural

[1]International Seabed Authority, Marine Mineral Resources Scientific Advances and Economic Perspectives 16 (2014).

[2]U.N. Convention on the Law of the Sea, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS].

[3]CLCS, *Recommendations of the Commission of the Continental Shelf in Regard to the Partial Reviews Submission Made by the Russian Federation in Respect of the Arctic Ocean on 3 August 2015 with Addenda Submitted on 31 March 2021*, (2023), https://www.un.org/depts/los/clcs_new/submissions_files/rus01_rev15/2023RusRev1RecSum.pdf.

[4]*See* Andreas Østhagen, *Troubled Seas? The Changing Politics of Maritime Boundary Disputes*, 205 Ocean & Coastal Mgmt. 1, 3 (2021).

[5]*See* Daniel Pauly, Dirk Zeller & Maria Lourdes Deng Palomares, *Catches by Taxon in the Global Ocean - EEZs of the World*, Sea Around Us (2020), https://www.seaaroundus.org/data/#/global?chart=catch-chart&dimension=taxon&measure=tonnage&limit=10&subRegion=1; Cent. Intel. Agency, The World Factbook (2023), https://www.cia.gov/the-world-factbook/countries/world/.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

resources, proven or estimated, are now under the control of states.[6] Some scholars have described the extension of national jurisdiction to marine resources as a "grab" designed to benefit a few individual agents[7] or as a "radical extension of the state prerogative, providing a legal cover for a rapid resource grab of historically unparalleled scale."[8]

Following up on these critical statements, this Article critically assesses the application of what has become the dominant organizing principle of resource use and governance in the ocean commons—sovereign rights to natural resources. It focuses on the continental shelf as a distinct zone of sovereign rights extended to an underwater resource domain attached to the territory of a coastal state. I look at the structure, scope, and practice of sovereign rights to natural resources and I assess the consequences of their application beyond land territory in the zones legally constructed within the marine environment. The argument of this Article is that in the current form, sovereign rights do not promote justice in the ocean commons. Three distinct problematic consequences are analyzed: Distributive inequality, unjust politics of resource sovereignty, and legal and economic reification of the marine environment. In the last part of the Article, I raise the question of if and how to rethink sovereignty to align with what appears to be an urgent need to safeguard the ocean commons as an environmental planetary domain.

Several caveats are in order. First, this Article focuses on the dominant and most consequential resource regime in ocean commons—sovereign rights to natural resources. Other resource regimes—the open-access regime of the high seas and the common property regime of the deep seabed—are discussed only briefly in the last Section. Second, I critically address the logic, structure, and operation of sovereign rights and their consequences for the ocean commons. Normative and critical approaches from political theory, international law, and global justice are synthesized to address distributive, political, and ecological consequences of the extension of sovereign rights to natural resources into the ocean commons. The aim of the analysis is a critical account from the pluralistic perspective of justice that considers not one but multiple concerns of justice—distributive, political, and ecological dimensions. The aim is not to develop a comprehensive normative theory of justice for the ocean's natural resources but to critically assess the outcomes of the nationalization of the ocean space through sovereign resource rights from these several important perspectives of justice. Third, I point to possible ways of how to think about the continuous role of sovereignty in the global ocean commons. The critical legal-empirical analysis I advance is meant to contribute to the debate on justice in the global ocean commons, and to encourage a more systematic and sustained engagement of critical and normative thought with the global commons and common resources in light of the most recent empirical developments and environmental challenges.

Here is a roadmap: Part I briefly reviews the history of continental shelf claims and reflects on the novel justification for sovereign continental shelf rights—the appurtenance principle. It outlines the current legal regime of the continental shelf and the process of the dynamic extension of continental shelf rights based on UNCLOS. Part II reflects on sovereign rights to marine natural resources and their aims and scope and discusses three distinct problematic consequences—distributive inequality, unjust resource politics, and economic reification of the marine environment. Concerning the first, I will argue that the extension of sovereign rights entrenched the existing inequality of territorial holdings and made fairer sharing of natural resources from this common domain impossible. Concerning the second, I show that sovereign rights are insufficiently constrained to ensure legitimate governance over marine natural resources. Finally, I focus on the legal and economic reification of the marine environment through the construction

[6] *Id.* (stating that high seas fishing accounts for approximately 4% of the global catch while fishing in exclusive economic zones accounts for 96%).

[7] *See* Surabhi Ranganathan, *Ocean Floor Grab: International Law and the Making of an Extractive Imaginary*, 30 Eur. J. Int'l L. 573, 577 (2019).

[8] *See* Chris Armstrong, Justice and Natural Resources: An Egalitarian Theory 202 (2017).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

of natural resources as extractable economic goods to be subjected to property rights whose main function is to secure exclusive economic benefit for the individual states. The last part asks about the possibility of rethinking sovereign rights to natural resources to mitigate the injustices discussed and the role of sovereignty in the changing perception of the ocean commons away from the extraction frontier toward a fragile, finite, and precious planetary domain.

B. The Annexation of the Offshore Resource Frontier

I. Continental Shelf as an Appurtenance

Continental shelf claims are a 20th century phenomenon. Until the end of the Second World War, there were only two maritime zones recognized by international law—the territorial sea and the high seas. The three-nautical mile cannon shot rule was established at the beginning of the 18th century and remained the customary rule determining the breadth of the territorial sea, mainly as a security and fishery zone, for two centuries. The high seas, vast areas beyond the narrow belt of the territorial sea, were accepted as an unclaimed and unclaimable open-access domain, common to all and governed by the principle of the freedom of the seas allowing free navigation and trade.[9] During the first decades of the 20th century, states began extending their claims to the seabed and its subsoil adjacent to their coasts to secure exclusive rights to the exploitation of sedentary fisheries and mining through tunneling.[10] The League of Nations Codification Conference of 1930 confirmed sovereignty over the territorial sea and included specific reference to "the bed of the sea in territorial waters and the subsoil" as an area of sovereign rights.[11]

The seaward orientation gained a new impetus as the immense hydrocarbon potential of the continental shelf was discovered and new drilling technology became available.[12] The landmark assertion of the exclusive jurisdiction over the continental shelf and its natural resources far beyond the territorial sea was made by the United States of America in the Truman Proclamation of September 28, 1945. Following the first offshore drilling in the Gulf of Mexico, the proclamation broke the universality of the doctrine of the freedom and commonality of the seas based on two related concerns—control of natural resources on and below the seabed of the continental shelf—minerals and fossil fuels—and to augment the national stock of fish as well as to establish fisheries conservation zones. The push to assert jurisdiction prevailed over opposing voices arguing for the continuity of customary rules of the law of nations and criticizing the nationalization of the ocean space as inimical to free trade and peace.[13] The justification for the enclosure of the continental shelf invoked a common-sense argument of national possession based on geography. President Truman asserted that the shelf is an extension of the land mass and is "naturally appertaining to it" and that its potential wealth is, therefore, part of a resource pool lying within the national territory

[9]*See* Hugo Grotius, The Free Sea 51 (David Armitage ed., 2004) (coining the free sea principle and arguing that seas cannot be physically that its resources are inexhaustible, and that seas ought to serve the common use of all). *See also* Nico Schrijver, Sovereignty over Natural Resources: Balancing Rights and Duties 203 (1997) (identifying that Dutch jurist Cornelius Van Bynkershoek identified at the beginning of the 18th century "freedom of the high seas" and "sovereignty" of the coastal state over its adjacent sea as the twin pillars of the law of the sea).

[10]*See, e.g.,* W. Lakhtine, *Rights Over the Arctic*, 24 Am. J. Int'l L. 703, 708 (1930) (describing how Russia made claims over the Article continental shelf in 1916 by a notification of Czar Nicholas II). *See also* Cecil Hurst, *Whose is the bed of the sea? Sedentary Fisheries Outside the Three-Mile Limit*, 1923–1924 Brit. Yearbook Int'l L., 40–43 (describing how the United Kingdom adopted an ordinance on pearl and conch shell fishing of Ceylon in 1925, and the U.K.'s claims to pearl fisheries); Suzette V. Suarez, The Outer Limits of the Continental Shelf: Legal Aspects of Their Establishment 22 (2008).

[11]*See* Hunter Miller, *The Hague Codification Conference*, 24 Am. J. Int'l L. 674, 688–89 (1930); Robin Rolf Churchill & Alan Vaughan Lowe, The Law of the Sea 124 (3d ed. 1999).

[12]*See* James Trumbull, John Lyman, J.F. Pepper & E.M. Thomasson, An Introduction to the Geology and Mineral Resources of the Continental Shelves of the Americas 92 (U.S. Geological Surv., 1958).

[13]*See* Donald Cameron Watt, *First Steps in the Enclosure of the Oceans: The Origins of Truman's Proclamation on the Resources of the Continental Shelf, 28 September 1945*, 3 Marine Pol'y 211, 214 (1979) (providing the debates preceding the Truman Proclamation).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

and subject to its jurisdiction and control.[14] He also argued for the necessity to control and manage marine resources—to utilize them prudently, protect them from destructive exploitation by those who have not contributed to their development and protection, and conserve them through regulation from the shore, claiming it is "reasonable and just" for a state to control its coastal domain.[15]

The unilateral nature of the Truman Proclamation and the justification invoking common-sense national interests implied that every coastal state could make a similar claim.[16] By 1956, approximately twenty-five states had unilaterally claimed sovereignty or jurisdiction over the shelf or exclusive rights to mineral resources in it.[17] These claims reflected an emerging consensus on the justification of the exclusive control of coastal states over the continental shelf. The 1958 United Nations Convention on the Continental Shelf confirmed this consensus by granting coastal states exclusive jurisdiction over offshore seabed resources—non-living and living sedentary species to the depth of 200 meters—and recognized the rights to the continental shelf as inherent and original, not depending on the actual occupation or express proclamation.[18]

The extension of sovereign rights to natural resources onto the continental shelf is based on the grounds of a distinct and novel principle—the principle of *appurtenance*. In property law, the term appurtenance means that something legally belongs to another, larger and more valuable, entity as an immovable or fixed item; and that property rights to appurtenant objects, implied in property rights to the larger entity, pass with the principal property upon sale or transfer.[19] Grounding continental shelf claims on the natural appurtenance of the shelf to the territory of the coastal state is a novel way of claiming sovereign jurisdiction over a geographic domain. Traditionally, legal grounds for the recognition of claims over territory included conquest, discovery and occupation, cession, and also accretion and prescription.[20] Whereas conquest and cession recognized the possibility of a loss of a territorial claim by a previous sovereign through military defeat or by a contract, discovery and occupation claims were mainly justified by the principle of *terra nullius*—the land belonging to none.[21] Yet, territorial claims invoking *terra nullius*—an unclaimed land available to a lawful appropriation—also required effective occupation and the ability to establish and enforce such a claim.[22] Premised upon the actual use of land, settlement, effective control over the population, and the ability to defend the claim against other claimants, occupation has come to be accepted as the most potent basis for the acquisition of the territorial title.[23]

[14]*See* Proclamation No. 2667, 10 Fed. Reg. 193 (Sept. 28, 1945).

[15]The argument for the national continental shelf—rights to the sea bottom and its subsoil—invoked existing practices of claiming exclusive rights to sedentary fisheries on the seabed—doe exampleoyster beds, pearl banks, and sponge fisheries—made in various parts of the world—such asCeylon, Tunis, Ireland, Australia, and the Mediterranean. It also reduced the idea of the freedom of the high seas to be a matter of free navigation, not applicable to the seabed and the subsoil. *See* Watt, *supra* note 13, at 218.

[16]*See* Østhagen, *supra* note 4, at 2.

[17]*See* Myres S. McDougal & William T. Burke, The Public Order of the Oceans: A Contemporary International Law of the Sea 637 (1962); Gian Pierre Campos Maza, The Legal Regime of the Continental Shelf and the Establishment of the Outer Limits of the Continental Shelf Beyond the 200 Nautical Miles 19–22 (2012), https://www.un.org/oceancapacity/sites/www.un.org.oceancapacity/files/campos_1112_peru.pdf.

[18]U.N. Convention on the Continental Shelf, Apr. 29, 1958, 499 U.N.T.S. 311.

[19]*See, e.g.,* Julia Kagan, *What Is Appurtenance? Definition, Uses in Real Estate and Example*, Investopedia (last updated Oct. 25, 2021), https://www.investopedia.com/terms/a/appurtenance.asp.

[20]*See* Marcelo G. Kohen & Mamadou Hébié, Territory, Acquisition ¶ 2 (2021).

[21]Much has been written on how *terra nullius* claims were falsely invoked by the European powers in the process of colonial expansion and how they misrecognized existing forms of occupation by indigenous groups or polities during the era of colonization, *see generally* Robert J. Miller, Jacinta Ruhu, Larissa Behrendt & Tracey Lindberg, Discovering Indigenous Lands: The Doctrine of Discovery in the English Colonies (2010); Andrew Fitzmaurice, Sovereignty, Property and Empire, 1500–2000 (2014).

[22]*See* Karin Mickelson, *The Maps of International Law: Perceptions of Nature in the Classification of Territory beyond the State*, *in* Locating Nature: Making and Unmaking International Law 159, 160-63 (Julia Dehm & Usha Natarajan eds., 2022).

[23]*See generally* Matthew Craven, *Colonialism and Domination*, *in* The Oxford Handbook of The History of International Law 862 (Bardo Fassbender & Anne Peters eds., 2012).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

Continental shelf claims have very different grounds. They are based on a scientific view that there is an area contiguous to the coast in the geological sense and that this area can be considered as the submerged prolongation of land. The view of the geological unity of the land and the seafloor postulates the objective, scientifically proven connection of the territory to the continental shelf. The states claim they are entitled to appropriate the continental shelf's natural wealth and prevent others from doing so even in the absence of their ability to physically occupy it or even the capacity to extract resources from it.[24] This legal notion of the continental shelf as a realm of sovereign rights to natural resources based on the appurtenance principle has been confirmed and explicitly spelled out by the International Court of Justice in the *North Sea Continental Shelf* cases and then restated in UNCLOS.[25] The International Court of Justice decision confirmed that coastal states have an inherent and original right to those areas of the continental shelf which constituted the natural prolongation of its land territory into and under the sea. It stated that these rights "exist *ipso facto* and *ab initio,* by virtue of its sovereignty over the land," and as an extension of it through the exercise of sovereign rights for the purpose of exploring the seabed and exploiting its natural resources.[26]

II. UNCLOS and Staking Out Boundary Disputes

The legalization of the continental shelf regime in the UN Convention on the Law of the Sea (UNCLOS)[27] is part of the broader and very consequential legal reform concerning the expansion of sovereignty into the ocean commons. UNCLOS establishes three distinct zones of sovereign rights of coastal states in their adjacent maritime areas: The territorial sea and the contiguous zone,[28] the exclusive economic zone,[29] and the continental shelf. Concerning the continental shelf, UNCLOS confirmed the existing consensus that states have an inherent right to exclusively use natural resources in the area, which is considered an extension of the land territory seaward. Article 76 defines the continental shelf as "the seabed and subsoil of the submarine areas that extend beyond its territorial sea throughout the natural prolongation of its land territory,"[30] and Article 77 confirms that the rights of a coastal state are exclusive and inherent, not depending on its effective or notional occupation or on any express proclamation.[31]

Two aspects underscore the legal innovation of the continental shelf. First, the continental shelf is a hybrid with respect to territory, sovereignty, and jurisdiction. Although defined as the natural

[24]*See* UNCLOS, *supra* note 2, at art. 76–77.

[25]North Sea Continental Shelf Cases (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands), Judgement, 1969 I.C.J. Rep. 327, at 30 (Feb. 20).

[26]The dispute submitted to the International Court of Justice in 1967 was related to the delimitation of the continental shelf between Germany, Denmark, and the Netherlands. The Parties asked the Court to state the principles and rules of international law applicable. What is worth noting is that the Court rejected the contention of Denmark and the Netherlands that the delimitations had to be carried out in accordance with the principle of equidistance; and it also rejected the apportionment of the continental shelf into just and equitable shares. The Court argued that equidistance and equity are neither rules of customary international law, nor implied in the doctrine of the continental shelf. *See Analysis of North Sea Continental Shelf Cases (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands)*, ICJ (Feb. 20, 1969), https://www.refworld.org/jurisprudence/caselawcomp/icj/1969/en/15093.

[27]*See* UNCLOS, *supra* note 2, at art. 76–85.

[28]UNCLOS, *supra* note 2, at art. 2 (setting the breadth of the territorial sea to the limit of twelve nautical miles from the baseline, which includes the airspace over the territorial seas as well as its bed and subsoil); UNCLOS, *supra* note 2, art. 17 (stating that ships of all states have the right of innocent passage).

[29]UNCLOS, *supra* note 2, at art. 57 (defining exclusive economic zone as an area beyond and adjacent to the territorial sea which can extend to 200 nautical miles from the coast); UNCLOS, *supra* note 2, at art. 56 (stating that in exclusive economic zones, states have "sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living" within the water column superjacent to the seabed and of the seabed and its subsoil and giving states the right to engage in other activities such as energy production, establishing structures, and research in these zones).

[30]UNCLOS, *supra* note 2, at art. 76.

[31]UNCLOS, *supra* note 2, at art. 77.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

prolongation of the territory of a coastal state, the legal regime of the continental shelf is different from the regime on a state territory. The states do not exercise a typical bundle of rights associated with territorial sovereignty on the continental shelf—territorial integrity and non-intervention, full territorial jurisdiction, or border control. In a coastal state's continental shelf, other states are entitled to lay submarine cables and pipelines and navigate through its superjacent waters and fly above them.[32] The jurisdiction a state exercises within the continental shelf is limited to "sovereign rights for the purpose of exploring it and exploiting its natural resources."[33] These rights are exclusive and inherent,[34] but they concern a narrow category of goods. Article 77 specifies the natural resources of the continental shelf that are subject to sovereign rights as mineral and other non-living resources of the seabed and subsoil together with living organisms belonging to the so-called sedentary species—clams, oysters, sponges and corals, and crustaceans.[35]

Second, the legal construction of the continental shelf is expressed in how its boundaries are set. The dividing lines and outer limits are not physically entrenched on the seabed but drawn on maps and confirmed through a highly formalized process of the application and review by the Commission on the Limits of the Continental Shelf and finally settled through bilateral negotiations or tribunal decisions in cases of disputes. The cartographic boundaries of the continental shelf do not map neatly onto underwater geography. Article 76 of UNCLOS sets the default boundary of the continental shelf to the outer edge of the continental margin or at a distance of 200 nautical miles from the baselines where the outer edge of the continental margin does not extend up to that distance.[36] In theory, the shelf can thus extend beyond the natural break of the continental rise into the abyssal plain of the deep seabed. When the geological margin extends beyond 200 nautical miles from the baseline, the outer edge can be established by one of the two formulas defined in Article 76.[37] Overall, the continental shelf's outer limit shall not extend to the distance of more than 350 nautical miles past a state's baseline or 100 nautical miles from its 2,500-meter isobath—the line connecting points 2,500 meters below the water's surface—whichever is more favorable to the applying state.[38]

How to set the boundaries of the continental shelves—what is the breadth of the continental shelf and how to settle the lines between states with adjacent or opposite coasts—is one of the main ambiguities of the UNCLOS regime of the continental shelf.[39] Vague rules notwithstanding, the efforts to delineate continental shelf boundaries currently occur in most oceans and seas as all coastal countries seek to extend the continental shelf to the maximum possible distance and thus acquire exclusive rights over mineral and fossil fuel deposits and other potentially valuable resources of the seafloor over as large an area as legally possible. Ninety-five applications for an extended continental shelf have been filed with Commission on the Limits of the Continental Shelf since the first submission was made by Russia in 2001.[40] Many claims of neighboring countries

[32]UNCLOS, *supra* note 2, at art. 78.

[33]UNCLOS, *supra* note 2, at art. 77.

[34]UNCLOS, *supra* note 2, Art. 77 ("The rights referred to in paragraph 1 are exclusive in the sense that if the coastal State does not explore the continental shelf or exploit its natural resources, no one may undertake these activities without the express consent of the coastal State.").

[35]UNCLOS, supra note 2, at art. 77 (defining sedentary species as "organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil").

[36]UNCLOS, supra note 2, at art. 76.

[37]UNCLOS, supra note 2, at art. 76 (explaining that the limit of the continental shelf beyond 200 nautical miles can be extended up to a line delineated by reference to fixed points where sediment thickness is at least 1% from the shortest distance to the foot of the continental slope, or to a line delineated by reference to fixed points at a distance of sixty nautical miles from the foot of the continental slope, whichever is furthest from the baselines from which the breadth of the territorial sea is measured).

[38]UNCLOS, *supra* note 2, at art. 76.

[39]*See generally* Østhagen, *supra* note 4.

[40]Div. Ocean Aff. & L. Sea, CLCS Submissions, through the Secretary-General of the United Nations, to the Commission on the Limits of the Continental Shelf, pursuant to article 76, paragraph 8, of the United Nations Convention on the Law of the Sea of 10 December 1982, U.N. Oceans & Law of the Sea (last updated Jan. 9, 2025), https://www.un.org/depts/los/clcs_new/commission_submissions.htm.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

overlap—China's and Japan's, Japan's and South Korea's, Japan's and Russia's, and Malaysia's and Indonesia's, to name just a few.[41] As in the Arctic, a tense staking out of conflicting claims to large continental shelves is taking place in the South China Sea, where overlapping claims of Malaysia, Vietnam, and the Philippines clash with China's controversial and implausible claim that almost all of the South China Sea is the domain of its sovereignty.[42]

According to Østhagen, close to 40% of all maritime disputes remained unresolved—not just over margins of the continental shelf—by the end of 2020.[43] Most disputes have been settled through lengthy bilateral negotiations,[44] and some have been and will have to be settled by tribunals.[45] In any case, boundary setting is a technical process relying on scientific—geographic, cartographic, etcetera—and legal principles. The states invoke science to stake out their claims and adhere, for the most part, to the available legal procedures and rulings, which greatly contributes to the fact that disputes over underwater zones are settled peacefully. The scientific rationalization and legal proceduralization endow the process of continental shelf division with legitimacy based on rules and procedures of international law. Yet, they also obscure the fact that there is a momentous underwater resource grab happening on the seafloor,[46] the result of which will be the extension of sovereign control into the last remaining resource frontiers of our planet and, hence, the shrinking of the global ocean commons.

In the process of the division of the seafloor, individual states seize large chunks of resource domains based on their contingent geographic features and advantages—the size of the territory, the coastal length, and the features of underwater geography—and extend their land-based extractive regimes into fragile and already massively anthropogenically impacted marine ecosystems. The division of the seabed into zones of national jurisdiction adds to already established exclusive economic zones, in many cases expanding resource sovereignty beyond the default boundary of 200 nautical miles.[47] This extension of sovereign resource rights has far-reaching consequences and raises urgent questions of distributive, political, and ecological justice. These will be discussed in the following Part II.

C. Sovereignty Over (Marine) Natural Resources and its Discontents

I. Permanent Sovereignty Over Natural Resources

The continental shelf is one of the most remarkable inventions of international law. As already mentioned, it is not a pure extension of the territory. States do not have full and complete territorial sovereignty over the continental shelf or a full bundle of sovereign rights. The shelf boundaries, drawn on maps and approved by international bodies or tribunals, separate zones of rights with a functional, limited character. The continental shelf, to use Daniel Lambach's term, is a "functional territory" created for particular purposes and it allows a mode of governance with

[41]*See* Østhagen, *supra* note 4, at 1. *See generally* Liao Xuexia, The Continental Shelf Delimitation Beyond 200 Nautical Miles: Towards A Common Approach to Maritime Boundary-Making (2021).

[42]The South China Sea Abritration (The Republic of Phi. v. The People's Republic of China), PCA Case Repository 2013-19 (Perm. Ct. Arb. 2016) (deeming China's nine-dash line drawn in 1947 claiming the Paracel Islands, Spratly Islands, coral Pratas Island, and more as illegal).

[43]*See* Østhagen, *supra* note 4, at 1.

[44]*See* Treaty Concerning Maritime Delimitation and Cooperation in the Barents Sea and the Artic Ocean, Russ.-Nor., Sept. 15, 2010, 2791 U.N.T.S. 49095 (concerning the delimitation of petroleum rights between Russia and Norway in large parts of the Barents Sea). *See also* Illulissat Declaration (2008) (constituting the agreement by Russia, Norway, Denmark/Greenland, Canada, and the United States that other overlapping claims in the Arctic are expected to be resolved through negotiations).

[45]*See* Østhagen *supra* note 4, at 4 (stating that approximately 95% of maritime boundaries that have been agreed between 1950 and 2020 were settled through negotiations outside the realms of arbitration or adjudication using legal principles set ou in international court rulings).

[46]*See* Ranganthan, *supra* note 7, at 577.

[47]U.S Dept. of State, *World Map of Extended Continental Shelf (ECS) Areas*, State.gov, https://www.state.gov/world-map-of-extended-continental-shelf-ecs-areas/?utm_source=chatgpt.com (last visited Apr. 19, 2025).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

functionally limited rights and duties.[48] The jurisdiction applies explicitly to natural resources, not over the seabed and its subsoil as such. Yet, from the point of view of rights to natural resources, sovereignty is full and unmitigated, exactly as on state territory.

Sovereign rights to marine natural resources held by states on the continental shelf are not an invention of the law of the sea. They reproduce and expand the permanent sovereignty over natural resources (PSONR)—the principle of international law that has been attached to the sovereign state status during the process of decolonization and the postwar reform of international law.[49] Adding sovereignty over natural resources to the bundle of sovereign rights was meant to fulfill two main objectives. On the one hand, PSONR was meant to rectify the colonial injustice with respect to natural resources and grant newly independent states immunity against unjust appropriations of land and resources by other states or foreign companies, for example, through forceful imposition of private property rights.[50] On the other hand, PSONR aimed at securing exclusive access to economic benefits arising from the exploitation of natural resources for new and developing countries and reinforcing their capacity for political self-determination and economic development.[51]

These two main objectives explain why PSONR has given states the supreme jurisdictional authority over natural resources within their territory and a broad range of powers and immunities. The powers implied in PSONR include the right to freely decide on the use of natural resources, to manage resources through national policies, to legislate and adjudicate property rights and management rules, to sell natural resources, to decide on the terms of foreign investment and extraction contracts, and also to nationalize foreign property.[52] As some legal theorists pointed out, sovereignty over natural wealth and resources is structured as a standard property right.[53] It includes a full bundle of rights usually associated with property rights—the right of access, the right of exclusion, the right of management and regulation, the right of withdrawal, the right of alienation, and the right to derive income from a given asset.[54]

As Nico Schrijver pointed out, PSONR is a strongly rights-oriented prerogative.[55] The emphasis on powers, liberties, and immunities prevails over the emphasis on duties and limits. The very core of PSONR is the right to freely exploit natural resources, use them for national development, and manage them pursuant to national policies. There are several limits on these rights, and they are mainly linked to the following concerns of the postwar global politics and the economy—to reinforce the sovereignty of newly independent states, to enhance individual states' capacity for economic development, the facilitation of trade with unevenly dispersed natural resources, and the protection of private companies and investors who actually extract and deliver raw materials to the world economy.[56] By and large, as many political theorists also noted, PSONR grants states exclusive and supreme political control over natural resources and wealth on their territories, effectively unlimited by demands of global distributive justice and political legitimacy.[57]

[48]*See* Daniel Lambach & Carlo Diehl, *Die Territorialisierung Der Global Commons*, 28 Zeitschrift für Internationale Beziehungen 5, 6 (2021).

[49]G.A. Res. 1803 (XVII) (Dec. 14, 1962).

[50]*See* Petra Gümplová, *Sovereignty over Natural Resources – A Normative Reinterpretation*, 9 Glob. Constitutionalism 7, 8–9 (2019).

[51]*See* Schrijver, *supra* note 9, at 82–83.

[52]*See* Schrijver, *supra* note 9, at 259, 258–98 (listing and discussing these rights on the basis of relevant treaty law, state practice, decision of international courts and tribunals, and other international instruments and the work of the UN International Law Commission).

[53]*See* Richard Barnes, Property Rights and Natural Resources 13–14 (2009).

[54]*See* Edella Schlager & Elinor Ostrom, *Property-Rights Regimes and Natural Resources: A Conceptual Analysis*, 68 Land Econ. 249, 250-51 (1992). *See also* Armstrong, *supra* note 8, at 22-23.

[55]*See* Schrijver, *supra* note 9, at 255.

[56]*See* Schrijver, *supra* note 9, at 20, 306; Isabel Feichtner, *International (Investment) Law and Distribution Conflicts over Natural Resources*, *in* International Investment Law and Development: bridging the gap 256, 256 (Stephan Schill, Christian J. Tams, & Rainer Hofmann eds., 2015).

[57]*See generally* Leif Wenar, Blood Oil: Tyrants, Violence, and the Rules That Run the World 74–77 (2016); Armstrong, *supra* note 8; Anna Stilz, Territorial Sovereignty: A Philosophical Exploration 219–20 (2019).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

The application of sovereign rights to marine natural resources to constructed national maritime zones—not only the continental shelf, but also the exclusive economic zone—has to be seen within the dynamic tendency to deepen and broaden the scope of the permanent sovereignty over natural resources, both in structural terms of claiming as many rights as possible but also in the spatial sense of extending them into new geographic areas. Upon discovering new opportunities and possibilities for the extraction of valuable raw materials in the sea, states sought to broaden their control over marine resources and replaced the classical freedom of the high seas with the law of appropriation and protection of exclusive national zones. For developing and newly independent states, there was an additional motivation to curb the liberty to appropriate natural resources from the commons by the economically and politically powerful and technologically advanced and prevent a highly unequal resource grabbing.[58] The reconstitution of the control over maritime areas and the application of sovereign rights to marine natural resources thus mirrors the justification, structure, scope, and operation of the PSONR system. This dynamic expansion of sovereignty over natural resources beyond territory has consequences that I propose we critically assess from three main perspectives: The perspective of global distributive inequality, the perspective of political defects in the exercise of resource rights, and the perspective of a conflict between the legal and economic reification of natural resources and demands for environmental protection of marine ecosystems. This critical assessment of the extension of sovereign rights to natural resources from these three perspectives is presented in the following sections.

II. Global Distributive Inequality

The UNCLOS reform, as suggested above, was driven by distinct distributive justice aspirations. UNCLOS reforms were negotiated within the broader process of the decolonization and the reconstitution of the international order and simultaneously with the PSONR reform that mainly sought to grant new states the immunity against unjust—colonial—appropriations of land and natural resources.[59] The sovereign rights in the continental shelf seek to advance similar objectives—to secure coastal states' opportunity to exploit natural resources in the marine areas adjacent to their territory. From the perspective of the ocean commons, governed mainly by the principle of the freedom of the seas until the UNCLOS reform, the extension of sovereign rights seaward can also be seen as an effort to avoid a distinct "tragedy" of the global commons—the tragedy of an unequal appropriation of the resources by a few. National zones of sovereign rights beyond territories were seen as an effective bulwark against an unlimited and highly inequitable appropriation of marine natural resources by industrialized states and extractive industries from the Global North, mainly through large-scale industrial fishing and offshore extraction of oil and minerals.[60]

The reform did achieve the objective of granting each coastal state the zone of exclusive rights to marine natural resources, thus preventing a free, first come, first served exploitation of marine resources in areas where most valuable living and mineral resources are concentrated—in shallow waters and on seafloors near the coasts. Still, the allocation of sovereign rights has also led to a highly disproportionate division of maritime space and wealth from the ocean commons among individual states based on a combination of contingent geographic factors—territorial size, sea access and coastal length, and control over overseas territories and uninhabited islands. The UNCLOS rules for the establishment of the continental shelf and the exclusive economic zones have enabled large countries with long coastlines and overseas territories to seize disproportionately larger shares of the marine space.[61] Smaller countries with short coastlines

[58]*See* Schrijver, *supra* note 9, at 205, 228.
[59]*See* Schrijver, *supra* note 9, at 205, 228.
[60]*See* Schrijver, *supra* note 9, at 205, 228.
[61]*See* Armstrong, *supra* note 8, at 203–04.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

got much smaller shares and landlocked countries have come out empty-handed, with no access to a significant share of the potential continental shelf wealth.[62] Notable is the case of Bolivia, which became landlocked as a result of the annexation of part of its territory by Chile during the War of the Pacific from 1879–1883. During the entire 20th century, Bolivia sought to obtain some form of sovereign access to the Pacific Ocean through negotiations, so far with no success.[63]

The largest continental shelf is now possessed by countries with the largest territories and longest coastlines: Russia, Canada, Australia, United States, Indonesia, United Kingdom, Argentina, Brazil, France, Denmark/Greenland, Norway, Mexico, and India.[64] These countries control sizable territories and coastal regions, and these geographic features have made it possible for them to seize comparably bigger parts of the ocean commons through the—extended—continental shelves and also exclusive economic zones.[65] The example of Russia is outstanding and is worth mentioning in greater detail. Russia is the largest country in the world by landmass, with a total area of 17.1 million km^2. It is also a country with enormous deposits of many valuable raw materials—it has the largest reserves of natural gas and diamonds, the second largest reserves of coal and gold, and remains one of the most significant producers and exporters of oil. Natural resources, hydrocarbons in particular, are the main source of income and hence the power and wealth of the Russian state, accounting for an unprecedented 10.7% of its GDP.[66] Due to its long northern coastline of over 24,000 kilometers, Russia now controls the Siberian Shelf, the largest continental shelf on Earth, believed to hold huge offshore reserves of hydrocarbons. Expanding the territory by about 10% of its territorial size, Russia's continental shelf covers more than half of the Arctic seabed and adds an enormous resource domain to its already vast territory and resource wealth.

Similar accounts can be given about other large countries with long coasts and the control over barren islands and archipelagos usually established during the colonial era. Australia significantly increased its resource holding through national maritime zones, not only due to its size and geography but also due to the control of the Heard and McDonald Islands—uninhabited islands north of eastern Antarctica which sit on an underwater mountain range now recognized as a natural part of the islands' territory. Since 2008, Australia has controlled extended continental shelves in nine areas around the mainland and in the sub-Antarctic. Australia's "marine estate," as one commentator put it,[67] recognized by Commission on the Limits of the Continental Shelf after decades of geochemical, geochronological, and bathymetric data collection, covers an area of 11 million km^2—an area greater than the Australian landmass.[68] The new seafloor areas, especially the sedimentary basin systems, are believed to be significant petroleum exploration areas. They

[62]UNCLOS, supra note 2, at art. 82 (stating that coastal states extending their continental shelf beyond 200 miles are obliged to share potential benefits from exploiting the non-living resources in the extended part via payments due to International Seabed Authority starting at 1% of the value after five years and increasing by 1% a year before maxing out at 7%).

[63]Obligation to Negociate Access to the Pacific Ocean (Bol. v. Chile), Judgement, 2018 I.C.J. 49, at 2 (Oct. 1) (finding that Chile did not have an obligation to negotiate with Bolivia regarding access to the Pacific Ocean).

[64]*See* Alex, *Maps of Every Country's Exclusive Economic Zone*, Vivid Maps (Apr. 17, 2017), https://vividmaps.com/exclusive-economic-zones-maps/.

[65]*Id.* The largest EEZ is now controlled by France, due to its overseas departments and regions in all oceans which are remains of its former colonial empire. *Id.* France's EEZ covers 11.7 million km^2 and 8% of the surface of all EEZs. *Id.* It is followed by the U.S. at 11.4 million km^2, Australia at 8.5 million km^2, Russia at 7.5 million km^2, the UK at 6.8 million km^2, Indonesia at 6.2 million km^2, Canada at 5.6 million km^2, Japan at 4.5 million km^2, New Zealand at 4.1 million km^2, and Brazil at 3.8 million km^2. *Id.* The UK possesses one of the largest EEZs mainly by virtue of still controlling colonial-era outposts such as the Falkland Islands, South Georgia, and the Tristan da Cunha archipelago in the South Atlantic Ocean. *Id.*

[66]*See* WBG, The Changing Wealth of Nations 2021: Managing Assets for the Future (2021), http://elibrary.worldbank.org/doi/book/10.1596/978-1-4648-1590-4.

[67]*See* Daniel Bishton, *Q&A with Mike Coffin: Exploring the Edge of Australia's Continental Shelf - Spatial Source*, Spatial Source (Sept. 2 2020), https://www.spatialsource.com.au/qa-with-mike-coffin-exploring-the-edge-of-australias-continental-shelf/.

[68]*See* Tony Press, *Shelf Rights an Opportunity for Greater Protection*, Sydney Morning Herald (May 31, 2012), https://www.smh.com.au/politics/federal/shelf-rights-an-opportunity-for-greater-protection-20120531-1zkhu.html.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

add to Australia's existing affluence in mineral and energy resources, which are the major contributors to Australia's economic wealth. As in other cases—the United States, Canada, the United Kingdom, Norway, and Brazil—adding large portions of the marine environment to territorial resource sovereignty not only increases resource holdings, and hence economic wealth, but also significantly reinforces power, influence, and ability to advance geopolitical interests.[69]

We do not have to invoke a specific theory of global distributive justice or a substantive distributive principle with respect to natural resources to state that the maritime zones of sovereign rights have not divided the ocean commons into equitable shares; and that the reform has, in fact, led to a highly unequal division of marine space and resources among countries, such that reproduced the existing inequality of geographic conditions.[70] The UNCLOS reform basically extended the coastal states' territories into the ocean, thus, to a large extent, reproducing and entrenching the contingent political geography characterizing our state-centric and territorial international system. Although formally equal—endowed with sovereign equality and an equal set of sovereign rights—the states composing the international system are otherwise very unequal. One of the key differences concerns physical features and geographic conditions—the size of the territory, the length of the coast, the control over overseas islands and archipelagos, and the amount of natural wealth.

Why is it questionable to use the existing political geography as the basis for the redistribution of space and resources from the global commons? The geographic features of sovereign states are neither a morally neutral natural phenomenon nor a distributively insignificant fact. First, the political map of our world is a result of a long history of territorial realignments that happened through highly contingent historical acts and now illegal methods, such as conquests, colonial settlements, dubious land purchases or treaties of cession, and other morally suspect forms of the recognition of territorial sovereignty.[71] Territories and their borders, as Thomas Pogge put it, are "historically arbitrary" and "indelibly tainted with past unjust conquests, genocide, colonialism, and enslavement."[72] The current territory of the United Kingdom, for example, is the outcome of the colonial conquest and settlement, as well as dynastic inheritance. The United Kingdom still controls colonial-era outposts such as the Falkland Islands, South Georgia, and the Tristan da Cunha archipelago in the South Atlantic Ocean, and claims zones of sovereign rights around them—exclusive economic zones and the continental shelf.[73] The United States came about through the expansive and violent settlement of vast indigenous territories by immigrants from Europe.[74] Although there are compelling pragmatic reasons to accept the current territorial division and state borders as settled,[75] it is at the same time important to remain sensitive to their historical contingency and morally problematic ways through which they were established.

[69]*See generally* Colin Flint, Introduction to Geopolitics 74–77 (2022). *See also*, A.G. Druzhinin & S.S. Lachininskii, *Russia in the World Ocean: Interests and Lines of Presence*, 11 Reg'l Rsch. Russ. 336 (2021).

[70]*See* Armstrong, *supra* note 8, at 203–204.

[71]*See generally* Patrick Macklem, The Sovereignty of Human Rights (2015).

[72]*See* Thomas Pogge, *An Egalitarian Law of Peoples*, 23 Phil. & Pub. Affs. 195, 199 (1994).

[73]Submission to the Commission on the Limits of the Continental Shelf Pursuant to Article 76, Paragraph 8 of the United Nations Convention on the Law of the Sea 1982 in respect to the Falkland Islands, and the South Georgia and the South Sandwich Islands (May 11, 2009) (pending review) (attempting to extend the continental shelf surrounding those islands).The CLCS application for an extended continental shelf around these three islands was filed in 2009 by the government of the UK and still awaits consideration. *See* U.K. of Great Britain and Northern Ireland, Continental Shelf Submission in respect of the Falkland Islands, South Georgia and the South Sandwich Islands (2009).

[74]*See generally* Helen Hunt Jackson, A Century of Dishonor: A Sketch of the United States Government's Dealings with Some of the Indian Tribes (1985).

[75]*See* Steven R. Ratner, *Drawing a Better Line: UTI Possidetis and the Borders of New States*, 90 Am. J. Int'l L. 590 (1996) (giving three reasons for the acceptance of existing borders and territorial divisions: 1) the reduction of the prospect of armed conflicts and border disputes, 2) constitutional democratic states can function within any borders, 3) *uti possidetis* is a default rule of international law mandating the conversion of once established boundaries into international borders).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

Second, even if we concede that the system of territorial states is now accepted, by and large, as given and immutable, it is important to recognize that the uneven territorial division of the globe is a fact with significant distributive consequences. Large territories with large maritime access are the source of power, wealth, capacity, and geopolitical and strategic advantage.[76] Bolivia, landlocked through a war, argued in its petition to the ICJ that the lack of sea access has had harmful economic effects due to slower trade and more expensive imports due to logistical costs and tariffs that are much higher than the average in the region.[77] Territorial size enhanced by maritime holdings increases a country's natural capital and holdings of valuable natural resources that provide important sources of income and economic wealth. Unsurprisingly, the biggest countries in the world—Russia, the United States, China, India, Brazil, and Australia—have the highest value of natural capital—calculated in trillions of dollars.[78] These physical and geographic characteristics are a form of endowments that are, as Charles Beitz put it, "arbitrary from a moral point of view"[79] and constitute inequalities that are problematic from the perspective of global distributive justice—they provide an undeserved advantage for the countries, contribute to the economic and political inequality among them, and should therefore be corrected through a redistributive system aimed at equalizing opportunities.[80]

The inequality of natural resource holdings among countries and the potential redistribution of unevenly allocated natural wealth or its monetary value through global taxes have preoccupied quite a few global distributive justice thinkers who, for the most part, focused on natural resources on state territories, not specifically on how to distribute previously unowned wealth from the global commons so that it rectifies the existing inequality.[81] That is precisely the point I seek to emphasize. There is an already existing inequality, and it relates, among other things, to the physical features of states and the territories they occupy. Yet, this uneven geography—contingent and morally arbitrary—has been reproduced in the process of the reconstitution of the ocean commons into national zones controlled by sovereign territorial states. Favorable geographic conditions such as territorial size and coastal length, an unfair advantage with respect to getting a share from the commons, have enabled large states to massively expand their already big territorial domains of resource sovereignty. This division of ocean space and resources entrenched rather

[76] *See generally* Michael T. Klare, Rising Powers, Shrinking Planet: The New Geopolitics of Energy (2008); A. T. Mahan, The Influence of Sea Power upon History 1660–1783 (2010); Jesse M. Lane & Michael Pretes, *Maritime Dependency and Economic Prosperity: Why Access to Oceanic Trade Matters*, 121 Marine Pol'y 1 (2020); Sam Sarpong, *Geopolitics of Natural Resources, in* The Palgrave Handbook of Corporate Social Responsibility (David Crowther & Shahla Seifi eds., 2021).

[77] *See generally* Zach J. Kleiman, *The Long, Not-So Pacific Struggle for the Coast: A Border Dispute Between Chile and Bolivia*, 22 Law & Bus. Rev. Am. 247 (2016). According to the 2016 Global Enabling Trade Report, Bolivia ranked 112th out of 136 in the Enabling Trade Index, which carefully takes into account market access, border administration, infrastructure, and operating environment.

[78] *See, e.g.,* World Bank, The Changing Wealth of Nations 2021: Managing Assets for the Future (2021). To be sure, the way natural resources generate wealth is a complex phenomenon depending on a combination of factors, such as political institutions, rule of law, economic diversification, etcetera. *See* World Bank, The Changing Wealth of Nations 2024: Revisiting the Measurement of Comprehensive Wealth (2024). Resource curse literature has shown that natural resource wealth can be a "mixed blessing." *See* Armstrong, *supra* note 8, at 49. The literature shows that the resource curse can even contribute to adverse economic, political, and social consequences. *See generally* Michael L. Ross, *Does Oil Hinder Democracy?*, 53 World Pol. 325 (2001); Michael L. Ross, The Oil Curse: How Petroleum Wealth Shapes the Development of Nations (2012); Leonard Wantchekon, *Why Do Resource Dependent Countries Have Authoritarian Governments?*, 5 J. Afr. Fin. & Econ. Dev. 145 (2002).

[79] *See* Charles R. Beitz, Political Theory and International Relations 140 (1979).

[80] *See id.* at 139–40.

[81] *See* Hillel Steiner, *Just Taxation and International Redistribution*, 41 Nomos: yearbook of the American Society for Political and Legal Philosophy 171, 183 (1999) (proposing states pay a tax of 100% based on the aggregate market value of all assets within a "territorial site" they occupy into a Global Fund and each nation would have an equal claim to this fund). *See also* Thomas Pogge, *Eradicating Systemic Poverty: Brief for a Global Resources Dividend*, 2 J. Hum. Dev. 59, 66–69 (2001); Thomas Pogge, *Allowing the Poor to Share the Earth*, 8 J. Moral Phil. 335, 344–46 (2011) (proposing a global redistribution system based on levying a Global Resource Dividend (GRD) on countries based on the aggregate value of extracted and sold resources).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

than mitigated the existing inequality among countries. This result undermines the law of the sea aspirations to not only prevent the tragedy of inequality in the free and unregulated appropriation of the global commons by the powerful and technologically advanced but also to secure an equal opportunity to use common natural resources for all countries regardless of the level of economic and technological development.

There are several reasons why the law of the sea reform followed the logic of existing division into sovereign territories and re-described the territorial map into the ocean global commons. As discussed above, the main justificatory rationale of the continental shelf reform has been to grant each coastal state the zone of national sovereignty to protect its exclusive right to exploit its resources—resources in the zones constructed as naturally attached to land territories.[82] The appurtenance principle justifying the claim to the continental shelf reflects an inherent geopolitical drive of states to territorialize empty and ungoverned spaces and subdue available frontiers to prevent rivals from getting more than a fair share, as well as an economic imperative to accumulate the maximum available resources.[83] Moreover, as Roberts and Sutch point out, the reconstitution of the global commons through the state-centric international system has followed the logic of *terra nullius*—the view that land and resources are either already owned and hence under somebody's irrevocable exclusive jurisdiction, or unowned and thus available for acquisition[84]—in this case by states that are the main actors authorized to assert effective control over previously unowned domains.[85]

The *terra nullius* principle assumes that the global commons and their natural resources have not been subject to previous unjust and inequitable use that may require a correction through a redistributive scheme designed to rectify the past injustice. This assumption is, however, historically inaccurate and misleading, and it makes the current law of the sea division of the ocean commons all the more problematic. The seas have been used for centuries in vastly unequal ways by the privileged, advanced, and powerful states and their trading companies and private actors, for example, in the system of transatlantic slavery and the Triangle Trade.[86] The division that would have taken this past injustice and the disproportionate use of the ocean commons into account would have to look very different. For example, as Roberts and Sutch suggest, the better-off who have drawn on more than the fair share of common resources forgo their claim in favor of those who have drawn on less or nothing in the past.[87] Had the reform taken into account both the past injustice and the historically disproportionate use of the commons and the current inequality, a very different division would have to be devised.

Instead of addressing the past injustice and inequality in the use of the ocean global commons, the new system of international law entrenched inequalities characterizing the way the world has been and continues to be divided. The problem to be highlighted is that sovereign rights to natural resources make it difficult, if not impossible, to redistribute or otherwise share the unevenly allocated wealth. Once a resource is under the exclusive jurisdiction of a state, all other states and their people are permanently excluded from access to, use of, or benefit from the sovereign

[82]*See* Schrijver, *supra* note 9, at 208–09.

[83]*See* Alexander B. Murphy, *The Sovereign State System as Political-Territorial Ideal: Historical and Contemporary Considerations*, *in* State Sovereignty as Social Construct 81, 82 (Thomas J. Biersteker & Cynthia Weber eds., 1996). *See generally* Daniel Lambach, *Kings of the Wild Frontier: International Society and the Territorialization of Empty Space* (2019) (paper presented at the Fifth Open Conference of the International Relations Section of the German Political Science Association (DVPW), Bremen, Oct. 4–6, 2017).

[84]*See* Peri Roberts & Peter Sutch, *The Global Commons and International Distributive Justice*, *in* Distributive Justice Debates in Political and Social Thought 230, 239 (2015).

[85]*See* Daniel Lambach, *The Functional Territorialization of the High Seas*, 130 Marine Pol'y 1, 2 (2021).

[86]Triangular trade was a system of highly unequal exchange and grave injustice in which Europe supplied Africa and the Americas with manufactured goods under conditions of mercantilist and monopolistic trade, the Americas supplied Europe with cheap commodities and freely extracted raw materials, and Africa supplied the Americas with free enslaved laborers. *See* generally Hugh Thomas, Slave Trade. The Hisotry of the Atlantic Slave Trade, 1440-1870 (1998).

[87]Roberts & Sutch, *supra* note 84, at 244.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

domain and its resources.[88] As I argued above, sovereign rights to natural resources are structured as standard property rights, making states essentially individual and exclusive owners of the raw materials within their territorial boundaries and now also maritime zones. The objectives justifying the existence of sovereign rights to natural resources—immunity against dispossession, protection against unjust appropriation, and exclusive access to economic benefits—imply that states are compelled to treat their resource domains as exclusive properties and use them to advance their national interest and economic development.

It is in sovereign resource rights' DNA, so to speak, that natural resources are not to be shared, redistributed, or co-managed with others. The fact that sovereign rights have not been shaped by global redistributive and collective management demands is a serious distributive problem in the context of the fact that the UNCLOS reform brought most of the world's natural wealth under the control of sovereign states.[89] Therein lies the tragedy of inequality of the global commons: Most of its known and extractable wealth has been divided among states, permanently subject to sovereign—property—rights that preclude the possibilities of redistribution, shared use, and collective management for the global public good and are the major obstacle for the mitigation of global inequality.

III. Unjust Politics of Sovereign Resource Rights

This section looks at sovereign rights from another perspective—the perspective of domestic politics—and asks whether these rights promote the uses of natural resources by governments that are politically legitimate, advance the well-being of the people, and fairly allocate benefits and burdens among relevant stakeholders within states—individuals, marginalized or disadvantaged groups, etcetera. There has been a considerable amount of literature critically addressing the exercise of sovereign resource rights from this particular perspective of justice, sometimes labeled accountability problem or authoritarian resource curse[90] or the problem of human rights.[91] Overall, political theorists have criticized sovereignty over natural resources as a powerful and unconstrained prerogative that is often abused by corrupt or illegitimate and human rights-violating governments and linked to the perpetration of injustice—repression, authoritarianism, embezzlement of public funds, and environmental injustice.[92] What is at stake, and why do sovereign rights to natural resources often produce such outcomes?

Sovereign rights are a distinct category of rights. They are held by political entities recognized as sovereign states and follow from their international legal status.[93] Sovereign rights have a specific quality—they belong to juristic entities—states—which are entities in their own right, with a separate legal status from societies, groups, and individuals who live in them and who are the right-holders in their own right—for example, holders of the collective right to self-determination or individual human rights. Sovereign rights are what Peter Jones called *corporate* rights.[94] A corporate right, according to Jones, is ascribed to a juristic entity, states in this case,

[88]Roberts & Sutch, *supra* note 84, at 240.

[89]*See* Ranganathan, *supra* note 7, at 591.

[90]*See* Thomas Pogge, *Achieving Democracy*, 15 Ethics & int'l affs. 3, 11–12 (2001); Leif Wenar, *Property Rights and the Resource Curse*, 36 Phil. & Pub. Affs. 2, 3–6 (2008); Shmuel Nili, *Rethinking Economic "Sanctions,"* 18 Int'l Stud. Rev. 635, 643–45 (2016).

[91]*See generally* Jérémie Gilbert, Natural Resources and Human Rights: An Appraisal (2018); Petra Gümplová, *Normative View of Natural Resources – Global Redistribution or Human Rights-based Approach?* 22 Hum. Rts. Rev. 155 (2021).

[92]*See* Wenar, *supra* note 57, at 28–40.

[93]The following rights are usually considered to belong to the main sovereign rights: Sovereign equality, territorial jurisdiction, territorial integrity, non-intervention, self-determination, the right of self-defense, and the right of permanent sovereignty over natural resources. *See* Samantha Besson, *Sovereignty, in* Max Planck Encyclopedia of International Law ¶ 86 (2011).

[94]*See generally* Peter Jones, *Group Rights*, *in* Stanford Encyclopedia of Philosophy (Edward N. Zalta & Uri Nodelman eds., 2022), https://plato.stanford.edu/entries/rights-group/.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

irreducible to its constitutive part(s) and exercised through institutions—governments—acting on their behalf.[95] Corporate rights differ from collective rights, which are rights held by individuals jointly or collectively, reflecting the inalienable rights they hold individually and as a group.

The term corporate right fittingly describes sovereign rights to natural resources implied in the PSONR system. There has been a discussion in the literature on PSONR about whether sovereign rights to natural resources actually belong to states or to the people—and whether sovereign rights to natural resources could or should actually be interpreted as collective rights of the people. In his account of the history of the PSONR system, Schrijver points out that initially, during the 1950s, the right to permanent sovereignty was alternatively thought to be vested in peoples and nations and underdeveloped countries.[96] This emphasis emerged in the context of the debates about the promotion of the economic development and self-determination of the peoples, where the principle of permanent sovereignty over natural resources was raised and linked to collective and individual human rights.[97] As the decolonization process progressed, Schrijver argues, the emphasis on peoples and nations and the connection with people's self-determination diminished and gradually shifted to developing countries.[98] The view that the people might hold resource sovereignty as a collective right was suppressed. During the 1970s, as the process of decolonization ran its course, the states became the primary subjects of the right to permanent sovereignty.[99]

What Schrijver calls the "étatist orientation"[100] of the PSONR system can be demonstrated by the subsequently established rights and duties following resource sovereignty which have been ascribed to states, not to the people. These rights and duties refer, as I suggested above, to the right to use natural resources freely for national economic benefit and development. The limits relate mainly to relations and financial obligations to investors, the duty to cooperate for international development, and the duty of the sustainable use of natural wealth and resources. The view that states exercise their sovereignty over natural resources in accordance with the individual and collective rights of the people and within limits and constraints implied in constitutionalism, democracy, and human rights has not made an impact in the process of shaping the scope of the PSONR.[101] This view has not been promoted in legal and economic regimes developed on a global level through which sovereignty over natural resources gained content—the policies of global financial institutions, such as the World Bank and the IMF; WTO trade rules; or international economic and foreign investment law regulating the relationship between states and private corporations.[102]

Resource sovereignty has become a powerful discretionary state prerogative exercised without the constraints implied in democracy and human rights and unlimited by demands of procedural and domestic distributive justice. This feature has been reinforced by domestic constitutional

[95]*Id.*

[96]*See* Schrijver, *supra* note 9, at 8.

[97]*See* G.A. Res. 1803 (XVII) (Dec. 14, 1962) (referring to both states and the peoples as holders of permanent sovereignty over natural resources)., *See also* International Covenant on Civil and Political Rights, GA Res. 2200A (XXI), U.N. GAOR, 21st Sess., Supp. No. 16, U.N. Doc. A/6316 (Dec. 16, 1966) (attributing permanent sovereignty to the peoples) [hereinafter Covenant on Civil and Political Rights]; International Covenant on Economic, Social and Cultural Rights, GA Res. 2200 (XXI), U.N. GAOR, 21st Sess., Supp. No. 16, U.N. Doc. A/6316 (Dec. 16, 1966). *But see* Declaration on the Establishment of a New International Economic Order, GA Res. 3201 (S-VI), U.N. GAOR, 6th Spec. Sess., Supp. No. 1, U.N. Doc. A/9559 (May 1, 1974) (only speaking of states) [hereinafter Declaration on a New Economic Order].

[98]*See* Schrijver, *supra* note 9, at 8.

[99]*Id.*

[100]*Id.*

[101]Wenar, *supra* note 57; Gilbert, *see supra* note 91 (highlighting the fact that sovereignty over natural resources, as a people's right, is included in human rights covenants); Covenant on Civil and Political Rights, supra note 97, at art. 1 ("all peoples have the right to self-determination" and that "by virtue of that right they freely determine their political status and freely pursue their economic, social, and cultural development"): Declaration on a New Economic Order, supra note 97, at art. 1 (stating the same) ("all peoples may, for their own ends, freely dispose of their natural wealth and resources ....").

[102]*See* Feichtner, *supra* note 56.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

provisions. Most constitutions in the world that include provisions concerning natural resources make natural resources property of the state; the constitutional provisions do not link ownership of natural resources to human rights or specify governance principles.[103] Autocratic, undemocratic, and human rights-violating exercise of sovereignty over natural resources is, in fact, an endemic political defect in the exercise of resource sovereignty. The phenomenon has been mapped by the vast field of the resource curse literature and by global NGOs, including Global Witness, Human Rights Watch, and more.[104] It was also critically analyzed by political theory.[105] Leif Wenar provides a detailed account of many resource-rich states where governments are either unconstitutional or systematically violate human rights and use natural resources for the private benefit of the ruling elite and the perpetration of an unjust, corrupt, repressive rule that is funded and maintained by resource rents.[106] In these states, the people often suffer combined harms caused by authoritarianism and political repression, violence and civil conflict, poverty and low human development, and cannot be said to be meaningfully benefiting from their countries' possession of natural wealth.[107]

Control over natural resources by an unaccountable, authoritarian power, and corrupt oligarchic networks is by no means a marginal problem. Oil, one of the most valuable raw materials and commodities, is, to a great extent, controlled by undemocratic regimes. Of the top ten oil-producing countries,[108] six are unfree, some of them at the very bottom of the Freedom House list of the global freedom score—Saudi Arabia, Russia, China, Iraq, Iran, and the United Arab Emirates.[109] There is no democratic country in the Organization of the Petroleum Exporting Countries (OPEC), which together hold about 70% of the world's total proved crude oil reserves. The top OPEC countries account for about 29% of total world crude oil production.[110] The most resource-rich countries of Africa,[111] such as Angola, Equatorial Guinea, the Democratic Republic of the Congo, Nigeria, Guinea, Gabon, Congo, Chad, and Mali, are unfree.[112] Venezuela, Iran, Kazakhstan, Turkmenistan, and Azerbaijan are other undemocratic and authoritarian countries controlling sizable natural wealth.[113] The politics in these countries do not conform to the norms of constitutionalism and democracy. Elections are not free and fair, there is repression of dissent and opposition, and there is violence by security forces. Other widespread human rights violations

[103]*See, e.g.,* Afghanistan [Constitution of the Islamic Republic of Afghanistan] [2004]; Const. of Angola (2010);

[104]*See* Global Witness, Lessons Unlearned (2010); Global Witness, The Truth About Diamonds (2006); Human Rights Watch, Well Oiled: Oil and Human Rights in Equatorial Guinea (2009).

[105]*See* Wenar, *supra* note 90; Wenar, *supra* note 57; Nili, *supra* note 90; Shmuel Nili, *Liberal Integrity and Foreign Entanglement,* 110 Am. Pol. Sci. Rev. 148, 154 (2016).

[106]Wenar, *supra* note 57, 48–64.

[107]Wenar, *supra* note 57, at 80–98.

[108]*See generally* EIA, *What Countries Are the Top Producers and Consumers of Oil?*, U.S. Energy Information Administration (2023), https://www.eia.gov/tools/faqs/faq.php (listing the ten largest oil producers: United States, Saudi Arabia, Russia, Canada, Iraq, China, United Arab Emirates, Iran, Brazil, and Kuwait)

[109]Freedom House, *Countries and Territories*, Freedom House, https://freedomhouse.org/country/scores?sort=asc&order=Country (last visited Apr. 19, 2025).

[110]*See id.* EIA, *Oil and Petroleum Products Explained: Where Our Oil Comes From*, U.S. Energy Information Administration (2023), https://www.eia.gov/energyexplained/oil-and-petroleum-products/where-our-oil-comes-from.php (listing the current OPEC members: Algeria, Angola, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, the Republic of the Congo, Saudi Arabia, the United Arab Emirates, and Venezuela).

[111]*See* Africa Progress Panel, Equity in Extractives: Stewarding Africa's Natural Resources for All (2013), https://reliefweb.int/sites/reliefweb.int/files/resources/relatorio-africa-progress-report-2013-pdf-20130511-125153.pdf (describing that thirteen resource-rich countries, including Angola, Equatorial Guinea, the DRC, Nigeria, Guinea, Gabon, Congo, Chad, Botswana, Zambia, Sierra Leone, Mali, and Namibia are export dependent—over 25% of export revenue is derived from natural resources—or fiscally dependent—depend on resources for 20% or more of domestic revenue). Thirteen countries in Africa depend on natural resources for more than half of their export earnings).

[112]*See* Freedom House, *supra* note 109.

[113]World Atlas, *The World's Largest Oil Reserves By Country in 2024,* WorldAtlas, https://www.worldatlas.com/industries/the-world-s-largest-oil-reserves-by-country.html#h_34118067970561718102956581 (last visited Apr. 19, 2025).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

are endemic, as well as patronage and corruption in the economy, in natural resource sectors in particular. Natural resources are usually controlled by a ruling class and corrupt, oligarchic structures hidden behind state-owned companies. The granting of concessions, negotiation of contracts with foreign companies, and revenue allocation occur outside of public oversight and accountable institutions. Resource wealth is appropriated by the political and economic ruling class and plays a key role in sustaining their hold on power.

Sovereign rights to marine natural resources are exercised by states in their national maritime zones in much the same way—within the same political and economic institutional structures and with the same defects I have just described. The serious flaws of resource politics are extended and reproduced by countries in their national maritime zones—authoritarian and human rights-violating governments; corruption and unaccountable control of resource rents and revenues; the issues of accountability, transparency, and oversight concerning foreign investment and extractive companies; the fairness regarding the distribution of social and environmental impacts of the extraction; and broader democratic participation in shaping resource policies. Let me briefly consider the development of offshore hydrocarbon resources on the continental shelf to support the argument.

Offshore procurement of fossil fuels has grown considerably over the last few decades, representing circa one-third of the global crude oil output and one-fourth of global gas production today.[114] The Persian Gulf is the region that holds approximately two-thirds of the world's estimated proven oil reserves and one-third of the natural gas reserves.[115] It is also where the world's largest offshore oil fields are located on national continental shelves. Most states in the region—Iraq, Kuwait, Saudi Arabia, Bahrain, Qatar, the United Arab Emerates, Oman, and Iran—are monarchical petrostates in which unaccountable ruling elites and oligarchic networks control oil-dependent economies. The revenues generated by hydrocarbon wealth benefit the few and are used to maintain autocratic repressive rule and to provide military and financial support for selected parties in various regional conflicts. Africa, Angola, Nigeria, Gabon, and Equatorial Guinea are now major offshore oil producers and, at the same time, textbook examples of the resource curse—they are resource-rich and resource-income-dependent countries that are unfree, have dismal human rights records, and have economies based on corruption and patronage. Although the populations suffer from poverty, gender and other discrimination, violence, and poor access to healthcare, education, and other social services, the oil wealth benefits the ruling political networks and the companies and investors. Angola, now Africa's top oil producer mainly from its continental shelf, is a particularly telling case of the abuse and mismanagement of its oil wealth extracted from the continental shelf.[116]

There are also democratic countries procuring hydrocarbons offshore. The United States owns the largest number of oil rigs in the Gulf of Mexico. Together with Brazil, Mexico, and Norway, it is among the top five offshore oil producers in the world, with the top spot held by Saudi Arabia.[117] In these countries, natural resources are managed by public authorities with greater compliance with norms and demands of procedural and distributive justice implied in human rights. However, there are persisting issues. For example, the problem of the transparency of the terms of contracts with the extractive companies and investors and the environmental justice deficits—the lack of sufficiently inclusive participation in the making of resource policies and the issues of equity and fairness concerning the distribution of social and environmental costs of extraction.

[114]*See* Heinrich Böll Stiftung, *Ocean Governance: Who Owns the Ocean?* (2017), https://www.boell.de/en/2017/05/30/ocean-governance-who-owns-ocean.

[115]*See, e.g.,* Graham Evans, *Persian Golf*, Britannica (last updated Apr. 11, 2025), https://www.britannica.com/place/Persian-Gulf.

[116]*See* Weronika J. Krawczyk, *Aid, Governance and Public Finance Fraud: Evidence from Angola*, 17 Politeja 19, 26–28 (2020).

[117]*See* Nick Ferris, *Top Ten Countries Currently Developing the Most Oil and Gas Fields*, Energy Monitor (June 5, 2023), https://www.energymonitor.ai/sectors/industry/top-ten-countries-developing-the-most-oil-gas-fields/.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

The rule of law, democratization, and respect for human rights are the main ways to enhance the legitimacy of the exercise of sovereign rights to natural resources and to meet the demands of procedural and domestic distributive justice. Political and global justice theorists such as Thomas Pogge, Leif Wenar, and Shmuel Nili have indeed focused on the democratization and clean trade reforms towards autocratic and human rights-violating governments as the main remedies for an unjust exercise of resource sovereignty.[118]

The question arises of whether the democratization of resource politics and more extensive respect for human rights would meet the demands of justice for the exercise of rights to natural resources in the ocean commons. Norway, a country labeled an "anomaly" by Wenar due to the country's exceptionally strong democratic institutions, redistributive welfare policies, and the creation of a sovereign wealth fund that preserves oil wealth for future generations,[119] has just approved the plan to open its continental shelf near Svalbard archipelago for commercial deep-sea mining of minerals. This decision, allowing extractive companies to apply for licenses, is justified by the need to secure a stable and secure source of rare earth elements—the supply of which has hitherto been dominated by China and Russia—that are needed for electric vehicle batteries, wind turbines, and solar panels—the transition to renewable energy. The decision has been met with wide criticism from scientists, environmental NGOs, and other countries, including the EU. The main argument against seabed mining is that too little is known about the pristine deep-sea ecosystem—its biodiversity and its interactions with other marine ecosystems and its role in the health of the larger ocean ecosystem—to safely mine the sea floor.[120] The European Parliament issued a resolution calling for efforts to meet the demand for rare earth elements through recycling and pursuing a circular economy and reaffirmed its support for a moratorium on seabed mining.[121]

The conflict over how to weigh the potentially destructive ecological impacts of deep seabed mining against economic benefits indicates that the extraction of natural resources from the ocean commons may be raising additional demands of justice, such that complement norms of procedural and distributive justice we associate with resource regimes and policies on state territories. These demands of justice might be distinct from the norms following from democracy, constitutionalism, and human rights. They arise because the seabed is distinct from state territory—it is an uninhabited ecological space and part of complex and interconnected marine ecosystem. The seabed harbors great and unknown biodiversity and forms of life and provides non-excludable but depletable benefits to all life on Earth. For example, it provides a habitat for the community of organisms called benthos, and it has carbon sequestering capacities. Ocean seabed raises a question of the just use of an ecological space with regard to potential mineral mining. Ecological space cannot be seen as a mere empty resource frontier awaiting human appropriation and extraction. It is a domain valuable in its own right, has its own integrity, and is vulnerable to human intrusion and the disruptive impact of extractive activities. Even perfectly democratic and human rights-conforming resource sovereignty does not seem to fully fulfill the expectation to do justice to the continental shelf seen as an ecological space and not as a resource frontier. The reasons why sovereign rights conflict with the demands of ecological justice are discussed next.

[118]Pogge, *supra* note 90 (suggesting that the developing countries should pass constitutional amendments stating that resources can only be sold by democratic governments, thus sending a clear message to the buyers to cease trade with non-democratic governments). *See also* Wenar, *supra* note 57 (proposing that liberal democracies discontinue trade with human rights violating governments).

[119]*See* Wenar, *supra* note 57, at 11.

[120]*See* Rakhyun E. Kim, *Should Deep Seabed Mining Be Allowed?*, 82 Marine Pol'y 134, 135 (2017);. Greenpeace, In Deep Water: The Emerging Threat of Deep Sea Mining (2019).

[121]Resoltuion on Norway's Recent Decision to Advance Seabed Mining in the Arctic, Eur. Parl. Doc. PV 8.8 (2024) (being welcomed by The Deep Sea Conservation Coalition (DSCC), Environmental Justice Foundation (EJF), Greenpeace, Seas at Risk (SAR), Sustainable Ocean Alliance (SOA) and the World Wide Fund for Nature (WWF)).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

IV. Legal and Economic Reification of the Marine Environment

There is another aspect to sovereign rights to natural resources that is relevant for the assessment of the impact this regime has had on the continental shelf—and the marine environment more broadly. It concerns what I call the legal and economic reification of parts of ecosystems. It is a consequence of the fact that sovereign rights to natural resources legally construct natural resources as extractable units and turn them into economic goods and objects of exclusive and nearly unlimited property rights. This legal and economic reification undermines the possibility of more stringent and holistic environmental protection, which is needed to safeguard vulnerable marine ecosystems.

Let me first discuss natural resources as a legal construction of the object to which sovereign rights apply. As a category of international law, the term natural resources has a distinct meaning and connotation. Looking into international law resolutions and declarations supporting the principle of permanent sovereignty over natural resources reveals that most legal documents do not define natural resources explicitly.[122] Yet, the term is linked to specific economic and political interests of states and the people. The Permanent Sovereignty over Natural Resources Resolution)[123] uses the terms natural resources and natural wealth without defining them clearly and links sovereignty over natural resources to the well-being of the people, national development, and state sovereignty. Human rights covenants pair natural wealth and resources with peoples' right to self-determination. Other important documents—the Declaration on the Establishment of a New International Economic Order[124] and the Charter of Economic Rights and Duties of States[125]—couple natural resources and natural wealth with the economic activities of states. By linking natural resources to these objectives—sovereignty, self-determination, and economic development—international law constructs natural resources as goods with an instrumental political and economic value for collectives institutionally organized as sovereign states.

This view of natural resources as economic goods owned by collectives is reinforced and concretized in domestic law. As mentioned, natural resources as politically and economically relevant national assets are included in many constitutions—for example, Zambia, Venezuela, Ukraine, Uganda, Turkmenistan, Tajikistan, Slovakia, Portugal, Panama, Mozambique, Libya, Kenya, Kyrgyzstan, Guinea-Bissau, China, and Brazil[126]—and the lists usually include the following: Minerals, fossil fuels, other subsoil resources and deposits, watercourses or water resources, land, living resources, genetic and energy resources, lakes, forests, or coastline. Most constitutions with natural resource clauses also entrench the ownership of natural resources, making them either state property,[127] or, to a lesser extent, property of the people or vested in the

[122]Schrijver, *supra* note 9, at 16–17, 19 (pointing out it is implicitly assumed in international law that the term natural resources refers to raw materials such as minerals or fossil fuels, whereas natural wealth refers to land, forests, wetlands, rivers, lakes, beaches, seas, flora, and wildlife which serve as a basis for economic activities and provide important environmental services—for example, flood amelioration or air purification).

[123]*See* G.A. Res. 1803 (XVII) (Dec. 14, 1962).

[124]Declaration on a New Economic Order, *supra* note 97.

[125]G.A. Res. 3281 (XXIX) (Dec. 12 1974).

[126]Const. of Zambia (2016) arts. 16 & 17 & Annex; Constitución de República Bolivariana de Venezuela arts. 12, 164 & 311; Конституція України [Constitution] art. 13 (Ukr.); Constitution arts. 13 & 244 (1995) (Uganda); Article 14, Türkmenistanyň Konstitusiýasy [Supreme Law of Turkmenistan] of 2016 (Turkm.); Article 13 Конституцияи Ҷумҳурии Тоҷикистон [Constitution of the Republic of Tajikistan] of 1996; Ústava Slovenskej republiky [Constitution of the Slovak Republic] art. 4; Constituição da República Portuguesa [C.R.P.], art. 84, English translation available at https://dre.pt/constitution-of-the-portuguese-republic; Constitución Política de Panama art. 257; Const. of Republic of Mozambique (2004) art. 98; Constitutional Declaration of Libya, Feb 17, 2011; Constituion art. 71 (2010) (Kenya); Article 12 of Кыргыз Республикасынын Конституциясы [Constitution of the Kyrgyz Republic] of 2010 (Kyrgyzstan); Constitution of Guinea-Bissau (1984) §§ 9, 10; Xianfa art. 9, (1982) (China); Constituição Federal [C.F.] [Constitution] art. 20 (Braz.).

[127]See e.g., Qanuni Assassi Jumhurii Islamai Afghanistan [Constitution of the Islamic Republic of Afghanistan] 9 [2004]; Const. of Angola (2010) art. 3; Article 12, Section 1, Հայաստանի Հանրապետության Սահմանադրություն [The Constitution of the Republic of Armenia] of 1995; Article 14, Azərbaycan konstitusiyası [Supreme Law of Azerbaijan] of 1995; រដ្ឋបញ្ញត្តិ

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

people and managed in the public interest.[128] The constitutional provisions concerning natural resources and their ownership also refer to national interests such as economic and social development, security, or strategic control, and sometimes also the safeguarding of the environment. Constitutional law thus reinforces the legal construction of parts of the natural environment as extractable goods and economic assets to be utilized for the exclusive benefit of the individual states and their people.[129] The legal and economic reification involved in the category of natural resources is consolidated by the above-described property-like structure of sovereign rights to these resources granted by international law and the PSONR regime—the right to freely decide on the use of natural resources, to manage resources through national policies, to legislate and adjudicate property rights and management rules, to sell natural resources, to decide on the terms of foreign investment and extraction contracts, and also to nationalize foreign property.

UNCLOS reproduces this legal-economic rationale in the marine environment. The convention is quite comprehensive in distinguishing different types of individual marine natural resources and allocating them to distinct resource regimes. As Surabhi Ranganathan pointed out, minerals, petroleum, and sedentary living species are placed within the continental shelf regime, fish are placed in the water regime, and polymetallic nodules, along with other solid, liquid, or gaseous minerals, are placed within the common heritage regime of the deep seabed.[130] This complex taxonomy of marine natural resources, as Ranganathan emphasizes, underlies the jurisdictional allocation of specific types of natural resources to specific resource rights within specific domains defined in juristic-geographic terms rather than in ecosystem terms.[131] This remarkable process of the construction of different resource regimes based on legal and economic reification of parts of the marine environment as natural resources buttresses the conception of the ocean global commons as a multidimensional extractive domain. Rather than being defined by what could potentially be its own intrinsic features and independent identity, the ocean is re-described in terms of an instrumental value for humans, annexed to land and its economy, and turned into a legal patchwork of zones of resource rights authorizing their holders to extract marine resources without limits.[132]

Sovereign rights to marin) natural resources consolidate what Ranganathan has called the law of the sea's "extractive imaginary" and the legal construction of the ocean commons and the

art. 58, (1993) (Cambodia); Constitución Política de Colombia [C.P.] art. 332; Ley suprema de la República de Guatemala, 121, 05-31-1985; Қазақстан Республикасының Конституциясы [Constitution] art. 6 (Kazakhstan); Article 21 *ad-distūr al-Kuwayti* [Constitution of Kuwait] of 1962; Maldvies Const. art. 248; Const. of Republic of Mozambique (2004) art. 98; Constitution of Nigeria (1999), § 44; Constitución Política de Panama art. 257; Const. (1987), art. XII (Phil.); Article 15 Al Nizam Al Asasi lil Hukm [The Basic Law of Saudi Arabia] of 1992; Ustav Republike Srbije [Constitution of the Republic of Serbia] art. 87; C.E., B.O.E. n. 132, Dec. 29, 1978 (Spain); Article 13 Конститутсияи Ҷумҳурии Тоҷикистон [Constitution of the Republic of Tajikistan] of 1996; Article 9 dustur alyaman [Constitution of Yemen] of 1991 (defining Natural wealth and resources as state property).

[128]*See e.g.,* Constitución de República de Cuba, art. 23, Gaceta Oficial 02-15-1976; Constitution of Niger (2010) § 148; Constitution of Senegal (2001) § 25.1 (defining natural wealth and resources are defined as the people's property). *See also* Constitution of the People's Democratic Republic of Algeria, 10 Sept. 1963, art. 19; Constitución Política del Estado [Consitution] art. 311 (Bolivia); Xianfa art. 9, (1982) (China); Constitution of the Arab Republic of Egypt, 18 Jan. 2014, art. 32; Constitution arts 40. 51 &52 (1994) (Ethiopia); Constitution arts. 257 &258 (1992) (Ghana); Article 13 Dostūr ej-Jumhūrīye et-Tūnsīyeb [Constitution of Tunisia] of 2014 (defining property in mixed terms as vested in the people and managed in the public interest by the satte government).

[129]*See, e.g.,* دستور دولة الإمارات العربية المتحدة [Constitution of the United Arab Emirites] art. 23, 1971 ("The natural resources and wealth in each Emirate are deemed the public property of that Emirate. The community shall preserve and utilize in a good way those resources and wealth for the interest of the national economy."); Article 13 Конститутсияи Ҷумҳурии Тоҷикистон [Constitution of the Republic of Tajikistan] of 1996 ("The land, its resources, water, airspace, fauna and flora, and other natural resources are exclusively the property of the State, and the State guarantees their effective use in the interests of the people.").

[130]*See* Ranganathan, *supra* note 7, at 590.

[131]*Id.*

[132]*See* Ranganathan, *supra* note 7, at 574.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

marine environment into resource regimes.[133] Curiously, as Barnes points out, sovereign rights to marine natural resources have the same property structure as described above and reproduce the structure and logic of the PSONR system.[134] In the territorial sea and on its seabed and subsoil, sovereign rights to living and non-living resources are part of a coastal state's permanent sovereignty. They imply that states can alienate these resources, allocate exploration and exploitation rights to other parties—states or private entities—and implement any regulation or property system in the same way as on its land territory. UNCLOS contains no reference to any conservation or management responsibilities within these waters, and neither does it contain an express statement that the exercise of sovereignty is subject to other rules of international law.[135] The exact same applies to sovereign rights on the national continental shelves—they are standard sovereign property rights, unlimited by conservation or management requirements, allowing states to extract, manage, or implement private property-based regimes. Only sovereign rights to living resources—fish—in exclusive economic zones are limited by conservation and management responsibilities set by UNCLOS.[136] Yet, they still give coastal states considerable discretion with respect to fisheries and are widely considered to be ineffective measures for preventing overfishing.[137]

There are many examples of harmful consequences of the legal and economic reification and propertization of marine natural resources and their unlimited extraction that express the raison d'être of sovereign resource rights. Offshore oil drilling in the national continental shelf—the exercise of sovereign rights for the purpose of exploiting mineral natural resources of the seabed and its subsoil in the law of the sea's terms—normally releases toxic pollution and greenhouse gasses, harms biodiversity, and disrupts fragile marine ecosystems. It drives climate change and is dangerous. Oil spills, a very frequent occurrence and an unavoidable part of offshore oil drilling and transportation that are now even more frequent due to increased severity of storms,[138] cause disastrous toxication and disruption of marine life and environment. BP's Deepwater Horizon Spill in 2010 in the Gulf of Mexico, now basically a thick forest of hundreds of oil platforms, is considered the worst industrial accident next to Chernobyl. It spilled millions of gallons of oil, killed thousands of animals, and contaminated the beaches and the water, causing massive disruptions in the food web.[139] Industrial fishing—the exercise of sovereign rights for the purpose of exploring, exploiting, conserving, and managing living natural resources in the exclusive economic zones—has destructive ecological impacts, such as species extinction, disruption of the food web, and increase or decline of other marine life which affects algal blooms, coral reefs, or

[133] *See* Ranganathan, *supra* note 7, at 576.

[134] *See* Barnes, *supra* note 53, at 261, 263–65.

[135] *See* Barnes, *supra* note 53, at 296.

[136] UNCLOS, *supra* note 2, at art. 61 (defining the duty to ensure through proper conservation and management that living resources are not endangered by overexploitation and establishing a duty to maintain harvestable fisheries at levels that can produce the "maximum sustainable yield" (MSY), which is generally regarded as failing to prevent overfishing). *See also* UNCLOS, *supra* note 2, at art. 62 (requiring coastal states to promote the objective of the optimum utilization of the living resources within its own exclusive economic zones by determining its own harvesting capacity and allowing other states access to the surplus when its capacity does not exhaust the total allowable catch).

[137] *See generally* Richard Stafford, *Sustainability: A Flawed Concept for Fisheries Management?*, 7 Elementa: Sci. of the Anthropocene 1 (2019); U.T. Srinivasan, W.L. Cheung, R. Watson & U.R. Sumaila, *Food Security Implications of Global Marine Catch Losses Due to Overfishing*, 12 J Bioecon 183, 184 (2010). Food and Agriculture Organization [FAO], *The State of World Fisheries and Aquaculture: Meeting the Sustainable Development Goals*, at 151–53 (2018); Richard Stafford, *Sustainability: A flawed concept for fisheries management?*, 7 Elementa: Sci. of the Anthropocene 1, 1–3 (2019).

[138] *See* Emily Nuñez, *Where They Drill, They Spill: Offshore Drilling Is Dirty, Dangerous, and Drives Climate Change*, Oceana (2022), https://oceana.org/blog/where-they-drill-they-spill-offshore-drilling-is-dirty-dangerous-and-drives-climate-change/ (explaining that in the U.S. alone, there were at least 5,900 spills between 2010 and 2019—an average of almost two spills per day).

[139] Igal Berenshtein, Claire B. Paris, Natalie Perlin, Matthew M. Alloy, Samantha B. Joye & Steve Murawski, *Invisible Oil Beyond the Deepwater Horizon Satellite Footprint*, 6(7) Sci. Advances 1 (2020).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

seagrass, and causes massive collateral damage to the ocean environment. Enormous plastic pollution from discarded fishing gear and harms to the marine environment by virtue of highly destructive techniques of bottom trawling, longlines, and bycatch discarding.[140]

To conclude, sovereign rights to marine natural resources involve legal and economic reification and propertization of parts of ecological domains and facilitate extractive practices of taking individual resources out of their environments, disregarding complex and symbiotic connections within ecosystems in which resources are embedded. They conflict with a holistic ecosystem view of the marine environment and undermine efforts to introduce regimes with more sustainable uses of marine resources. If we accept that the marine environment is not merely an extractive domain but an ecological space in its own right and with its own identity and ontology, we also need to accept that it makes a distinct demand of justice.

There are, in fact, compelling reasons why the marine environment is owed what has recently been termed ecological justice—meaning doing justice to nature, ecosystems, and individual species.[141] First, the marine ecosystem(s) and biodiversity are intrinsically valuable in their own right, independently of the instrumental value for humans. Second, the marine environment and ecosystems are fragile and highly vulnerable to human impact, and they have already been over-polluted and depleted through extractive and polluting human practices. Third, the ocean supports life on Earth—it harbors marine biodiversity, regulates weather patterns, and produces oxygen and sequesters carbon. It also supports humans by providing food, energy, and communication routes. It is owed ecological justice. Structured as property rights and justified mainly by economic objectives, sovereign rights to natural resources appear to be substantially at odds with this distinct realm of justice.

D. Rethinking Sovereignty in the Ocean Commons

In the previous sections, I showed that the continental shelf is a distinct innovation in international law of the sea. Although not a pure extension of the territory with a full bundle of rights of sovereign jurisdiction, the continental shelf is a geographic extension of the principle of sovereignty over natural resources. As on state territories, the sovereign rights to natural resources in the continental shelf are structured as property rights, granting states exclusive access to resources within a territorial realm, decision-making power unconstrained by norms of domestic and international justice, and liberty to use these resources for the individual—national—interest. This includes the right to appropriate maximum economic benefits from the resources by extracting, commodifying, or transferring the extractive rights. I have argued that the extension of sovereign rights to natural resources to the continental shelf has not promoted justice in the ocean commons. It has led to a highly unequal division of marine space and resources, the extension of politically unjust exercise of resource sovereignty, and legal and economic reification of the marine environment that conflicts with the demands of ecological justice.

The obvious question arising in light of this critical assessment is how to imagine a more just use of the oceans' natural resources, what regime is best equipped to promote it, and what role, if any, could sovereignty play. Are sovereign rights fundamentally defective and ill-placed to be applied in the domain of the ocean, and should they be replaced? Are there any alternatives available for a more equitable and sustainable use of ocean resources? Or could sovereign rights be

[140] *See* Seaspiracy (Netflix 2021).

[141] *See* Anna Wienhues, *Sharing the Earth: A Biocentric Account of Ecological Justice*, 30 J. Agric. & Env't Ethics 367 (2017) (claiming that ecological justice is justified by at least three distinct and compelling reasons: 1) the circumstances of scarcity, vulnerability, and the lack of reciprocity between humans and ecosystems, 2) the ability of nature to flourish and hence the need to protect the flourishing of all living beings and non-human natural environments, 3) the interdependence of all living beings, their sharing the destiny on the planet Earth and thus forming a "community of fate," as opposed to environmental justice that is concerned mainly with how to distribute environmental goods between humans and how to avoid unfair allocation of environmental burdens—pollution, climate change).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

recast to promote justice for the ocean commons, on the continental shelf, and beyond it? In the last section of the Article, I will focus on the question of whether there is a possibility of envisioning a role for sovereign rights in the just use of the ocean. The argument I outline is for the continuous role of the reinvented sovereign rights in the ocean commons so that they become the key vehicle for governance in the era of climate change and biodiversity crisis. The argument bears on three considerations: (1)Tthe urgent need for all ocean resource regimes to provide better environmental protection of the marine environment to address the environmental and climate crisis; (2) the defects of available alternatives to sovereign rights; (3) the possibility of the reinvention and transformation of sovereignty as a form of Earth Trusteeship.[142] Let me discuss each in turn.

I. Ocean in Crisis

The oceans are in a crisis as a result of excessive human impact and extraction of marine resources. The perilous state of the world's oceans and marine ecosystems has been extensively mapped in reports produced by the networks of scientists for governments, transnational regulatory bodies, UN, NGOs, and research and policy institutes.[143] These reports paint a bleak picture of the decline and depletion of the marine environment. Marine biodiversity, especially of coral reefs, is declining as a result of warming and acidification caused by anthropogenic greenhouse gas emissions.[144] Biodiversity is further threatened by massive pollution caused by plastic, crude oil, detergents, pesticides, and other toxic substances that poison fish and marine mammals and cause the growth of bacteria which deplete oxygen levels and create dead zones.[145] Large-scale industrial overfishing has brought multiple fish stocks near extinction and continues to harm marine animals through destructive fishing techniques, such as bottom trawling, bycatch discarding, and plastic pollution from discarded fishing gear.[146] Offshore mineral and hydrocarbon extraction, as discussed above, releases toxic substances and greenhouse gasses into the oceans, further harming biodiversity and disrupting fragile marine ecosystems. Although the benefits of the (over) exploitation have been shared by the few, the ensuing externalities and negative environmental impacts are borne mainly by those who contributed the least to the pollution and overuse, including marine life. The excessive anthropogenic footprint—pollution, heating, excessive extraction—diminishes the ocean's ability to support life on Earth, harbor marine biodiversity, regulate weather patterns, sequester carbon, and support humans by providing food, energy, and communication routes.[147]

The view of the ocean that emerges from the current diagnosis of depletion, overuse, pollution, and biodiversity decline is that of a rich yet fragile underwater world, home to precious and still unknown species and complex assemblages of ecosystems that are valuable in their own right. In more instrumental terms of ecosystem services, the ocean can also be seen as a system key to our planet's health because it regulates global temperature, weather patterns, cycles of evaporation and

[142]Klaus Bosselmann, Earth Governance: Trusteeship of the Global Commons (2015).

[143]Inter Gov't Panel on Climate Change [IPCC], *The Ocean and Cryosphere in a Changing Climate: Special Report of the Intergovernmental Panel on Climate Change*, at 6–16; FAO, *supra* note 137; Inter Gov't Oceanographic Comm'n, *State of the Ocean Report*, at 1 (2022).

[144]*See generally* Lorin Hancock, *Everything You Need to Know about Coral Bleaching—and How We Can Stop It*, World Wildlife Fund, https://www.worldwildlife.org/pages/everything-you-need-to-know-about-coral-bleaching-and-how-we-can-stop-it (last visited Oct 11, 2024) (saying that coral reefs, which support 25% of marine life, are among the most vulnerable ecosystems to climate change andheir disappearance would be a tragedy for marine biodiversity and for coastal communities depending on fishing).

[145]*See* Chris Armstrong, A Blue New Deal: Why We Need a New Politics for the Ocean 22–26 (2022).

[146]Antonio Pusceddu, Silvia Bianchelli, Jacobo Martín, Pere Puig, Albert Palanques, Pere Masqué, Roberto Danovaro, *Chronic and Intensive Bottom Trawling Impairs Deep-Sea Biodiversity and Ecosystem Functioning*, 111 Proc. Nat'l. Acad. Sci. U.S.A. 8861, 8862–63 (2014).

[147]*See* Armstrong, *supra* note 145, at 22–26.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

rainfall, functions as the most important carbon sink, and produces half of the oxygen for our planet. Despite its vastness and the difficulty of being occupied and fully tamed, the ocean has become highly susceptible to human impact. As the planetary boundaries discourse has framed it, there are biophysical limits to what humans can appropriate from this large planetary domain, including how much they can extract and put in.[148] Exceeding these limits threatens the stability, integrity, and the life-supporting function of the ocean commons and negatively affects other biophysical systems and planetary boundaries. It also has major social-ecological and justice implications for present and future human and nonhuman generations.[149]

If we accept the view of the ocean as a planetary domain harboring intrinsically valuable marine life and performing a range of ecosystem functions—and at the same time having been subject to harmful overexploitation—then the main goal of the resource regimes ought to be to safeguard this planetary domain: Protect the integrity, resilience, and health of its ecosystems; and prevent its further depletion and exploitation. Ocean resource regimes ought to be primarily oriented toward duties and responsibilities rather than rights and freedoms. They ought to espouse principles of common concern and the fiduciary duty to protect the marine environment for its own sake and for the common good of humanity and future generations. The progressing erosion of the marine environment and continuous injustice suggest we urgently need to implement a different governance paradigm that elevates environmental marine protection above individual and short-term economic interests to extract maximum resources from the sea. Many voices have, in fact, called for such a change with respect to seabed mining: Scientists, environmental organizations, indigenous groups, and many countries. For example, Germany, Costa Rica, France, Spain, Chile, New Zealand, and several Pacific nations have called for a precautionary pause to deep seabed mining.[150] Big corporations—Google, Volkswagen, BMW, Volvo, and Samsung SDI—signed a World Wildlife Fund (WWF) call for a moratorium on seabed mining and committed to not sourcing any minerals from the seabed, to excluding such minerals from their supply chains, and to not financing deep seabed mining activities.[151] These initiatives elevate the loss of seafloor habitat, species extinction, destruction of unknown biodiversity caused by destructive vacuuming of the seabed, noise and chemical pollution, and sediment plumes over the benefits of seabed mining.[152]

Ocean governance based on non-extractive use that protects, restores, or conserves the marine environment rather than depletes it can, in principle, be embodied in different regimes and promoted by a variety of actors—states, communities, international organizations, and even private actors.[153] Given the dominance of sovereignty in the ocean commons and the fact that most living resources and exploitable seafloors are divided up among states and fall under sovereign resource rights, the main question is if it is possible to transform sovereign rights from instruments facilitating maximum resource extraction to instruments realizing collective goals of protection of the marine environment. Before I outline how sovereign rights can be transformed in light of this paradigm, let me briefly mention the alternative regimes of ocean governance and their weaknesses.

[148]Johan Rockström et al. *A Safe Operating Space for Humanity*, 461 Nature 472 (2009); Will Steffen et al. *Planetary Boundaries: Guiding Human Development on a Changing Planet,* 347 Science 736 (2015).

[149]*See* IOC-UNESCO, State of the Ocean Report at 11 (2024); Johan Rockström et al., *The Planetary Commons: A New Paradigm for Safeguarding Earth-Regulating Systems in the Anthropocene*, 121 Proceedings of the National Academy of Sciences 1, 1–2 (2024).

[150]Deep Sea Conservation Coallition, *Momentum for a Moratorium*, Deep Sea Conservation Coallition: Solutions, https://deep-sea-conservation.org/solutions/no-deep-sea-mining/momentum-for-a-moratorium/ (last visited Apr. 19, 2025).

[151]*Id.*

[152]*See No Deep Seabed Mining*, WWF, https://wwf.panda.org/discover/oceans/ocean_habitats/no_deep_seabed_mining/ (last visited Oct. 11, 2024).

[153]*Id.*

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

II. Non-sovereign Alternatives and Their Flaws

With respect to natural resources, the ocean regimes established by UNCLOS fall into two broad categories—national maritime zones with exclusive sovereign rights to natural resources and the commons regimes. The latter includes an open-access regime of the high seas and a common property regime of the deep seabed. The high seas is an area beyond exclusive economic zones. In continuation with the previous principle of the free sea, the high seas are open to all states, governed by the freedom of the high seas principle, which includes freedom of navigation, of overflight, to lay submarine cables and pipelines, to construct artificial islands, and of fishing and scientific research.[154] Due to the emphasis on freedoms and the lack of an institutionalized regime with an international organization governing the area, the high seas have been highly vulnerable and subject to overuse, plunder, and other kinds of harmful or illegal activities by states, companies, and other agents.[155]

Freedom of fishing on the high seas embodies the defects of this liberal open access regime and represents a textbook example of the tragedy of the commons—an outcome potentially arising in a situation where individual agents are free to use a shared, scarce resource.[156]Instead of collectively devising a system of rules for sustainable use, the agents choose to pursue individual short-term interests to maximize economic gain.[157] The result of an unregulated—or inefficiently regulated—use of shared resources by self-interested agents is the tragedy of depletion.[158] By legal definition, the high seas are an open-access realm and fishing is a right of all states.[159] There are regional fisheries management organizations that manage selected fish stocks. These organizations have been widely criticized as insufficient vehicles of good and efficient governance—they focus selectively on a few commercially exploited species of fish and rely on the concept of "maximum sustainable yield," which is largely considered ecologically, socially, and economically flawed and unsuitable for protecting complex marine ecosystems.[160] Their regulations are inconsistent with conservation and management provisions of the 1995 UN Fish Stocks Agreement[161] and the 1995 UN FAO Code of Conduct for Responsible Fisheries.[162] Regional fisheries management organizations are also affected by institutional shortcomings—they rely on incomplete data, inadequate systems of administration and monitoring, and ineffective rule enforcement. The current regime of high seas fishing fails to stop overfishing and has led to the depletion of nearly

[154]*See* UNCLOS, *supra* note 2, at art. 141 (statingthat the high seas shall be reserved for peaceful purposes); *id*. at art. 99 (prohibiting slave trade); *id*. at art. 100 (prohibiting pracy); *id*. at art. 108 (prohibiting illicit trafficking of narcotics); *id*. at art. 109 (prohibiting unauthorized broadcasting).

[155]*See* Ian Urbina, The Outlaw Ocean: Journeys across the Last Untamed Frontier 395–400 (2019) (documenting the state of the high seas today and describing them as a lawless frontier of violence, workers' exploitation, modern slavery, poaching, animal slaughtering, and piracy). *See also* Armstrong, *supra* note 145, at 115.

[156]*See generally* Stephanie F. McWhinnie, *The Tragedy of the Commons in International Fisheries: An Empirical Examination,* 57 J. Enviro Econ. Management 321 (2009); Erin A. Clancy, *The Tragedy of the Global Commons,* 5 Ind. J. Global Legal Stud 601 (1998); Janice G. Boswell, The Atlantic Bluefin Tuna: A Tragedy of the Commons on the High Seas, Student Theses (2014). https://research.library.fordham.edu/environ_2014/5

[157]*Id.*

[158]*See generally* Garrett Hardin, *The Tragedy of the Commons: The Population Problem Has No Technical Solution; It Requires a Fundamental Extension in Morality*., 162 Sci. 1243 (1969).

[159]UNCLOS, *supra* note 2, at art. 87.

[160]*See generally* Gabrielle Carmine, Guillermo Ortuño Crespo, *Un-Tangled: How the Global Ocean Treaty Can Help Repair High Seas Mismanagement*, Greenpeace International, https://www.greenpeace.org/international/publication/67495/untangled-global-ocean-treaty-high-seas-mismanagement/ (2024); Michael Lodge, *Managing International Fisheries: Improving Fisheries Governance by Strengthening Regional Fisheries Management Organizations*, Eur. Sources Online, https://www.europeansources.info/record/managing-international-fisheries-improving-fisheries-governance-by-strengthening-regional-fisheries-management-organizations/#:~:text=By%20bringing%20together%20coastal%20states%20and%20fishing%20nations%2C,examples%20of%20RFMOs%20sustainably%20managing%20their%20target%20stocks (2007).

[161]Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 Decemeber 1892 Relating to the conservation and management of Stradling Fish Stocks and Highly Migratory Fish Stocks, Sept. 8 1995, 37 U.N.T.S. 164.

[162]Food and Agriculture Organization [FAO], *Code of Conduct for Responsible Fisheries*, at 10–11, Res. 4/95 (1995).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

three-quarters of fish stocks.[163] The new High Seas Treaty, which creates a legal framework for the establishment of new Marine Protected Areas (MPAs), leaves the problem of overfishing fishing, the main source of biodiversity depletion and plastic pollution, completely out of the agreement.[164]

The common property regime for seabed minerals, the other ocean commons regime, was established to create an alternative to both exclusive zones of sovereign rights and the liberal regime of the high seas to avoid a situation of unlimited and unregulated exploitation of resources by technologically advanced and economically and politically powerful actors. According to UNCLOS, the seabed and ocean floor and subsoil thereof beyond the limits of national jurisdiction (called *the Area*), and the minerals here, are designated as the "common heritage of mankind."[165] The common heritage principle prohibits claims and exercises of sovereignty and sovereign rights, reserves the Area for peaceful purposes, and prescribes cooperative international management and benefit-sharing mechanisms to be created by the International Seabed Authority (ISA).[166] The Common Heritage of Mankind principle is indeed a novel and innovative jurisdictional principle for the collective management and sharing of mineral natural resources of the seabed. It represents a progressive notion that some domains and their assets should benefit not a selected few, but everyone. The Common Heritage of Mankind principle, therefore, vests the ownership of resources in mankind as a whole and prescribes a collective and peaceful international management and equitable sharing of the benefits of resource extraction, with a special preferential view to the needs of developing countries.[167] However, the progressive vision behind the Common Heritage of Mankind principle has not materialized in its institutional structure. The seabed mining code that specifies rules for the mining activities and prescribes benefit-sharing mechanisms has not been finished to this day.[168] As critics have been pointing out, the process has been marked by a series of compromises shaped by business and pro-extractive interests, sidelining and diluting both redistributive aspirations and environmental concerns about the harmful impacts of seabed mining.[169]

Invoking the duty to protect the marine environment articulated throughout UNCLOS, some thinkers have attempted to extrapolate the Common Heritage of Mankind principle beyond its origin and recast it as a principle of environmental protection.[170] However, such interpretations defy both the legal definition provided by UNCLOS and the contours of the emerging seabed regime as shaped by ISA and its drafting of the mining code.[171] As Isabel Feichtner showed, the Common Heritage of Mankind principle has been proposed and legalized primarily as a

[163]*See generally* Food and Agriculture Organization [FAO], *Towards Blue Transformation* (2022) (estimating that somewhere between two-thirds to three-quarters of fish stocks are now depleted or overfished).

[164]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, June 19, 2023, C.N.203.2023.

[165]UNCLOS, *supra* note 2, at art. 136.

[166]UNCLOS, *supra* note 2, at art. 137.

[167]UNCLOS, *supra* note 2, at art. 140 & art 13 annex (enshringing the benefit-sharing which specify the financial terms of mining contracts and payment obligations and provide detailed provisions for the calculation of royalties and profit shares).

[168]Int'l Seabed Auth., Draft Regulations on Exploitation of Mineral Resources in the Area, https://www.isa.org.jm/wp-content/uploads/2022/06/isba_25_c_wp1-e_0.pdf.

[169]*See* Isabel Feichtner, *Sharing the Riches of the Sea: The Redistributive and Fiscal Dimension of Deep Seabed Exploitation,* 30 Eur. J. Int'l L. 601 (2019) (demonstrating that the ISA is adopting an individualist stakeholder orientation and is deferring to commercial interests in profitability in the context of the growing expectation that marine resources can supply the much needed resources for green economic growth, thus abandoning redistributive ambitions).

[170]*See* Prue Taylor, An Ecological Approach to International Law (1998).

[171]UNCLOS, *supra* note 2, at art. 136, 137, 140 (stating that the mineral resources of the Area are the common heritage of mankind to be recovered for the economic benefit of all countries, taking into particular consideration the interests and needs of developing states).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

jurisdictional principle for the regulation of economic exploitation of seabed riches, allocation of extraction rights, and management of the economic benefits from mining.[172] The Common Heritage of Mankind principle does not provide any sources to develop an effective regime for the protection of marine ecosystems. In the context of the ocean commons, it is not up to the task defined above—to restore and safeguard the marine environment, protect biodiversity, and stop extractive overuse. Neither of the ocean commons regimes beyond national jurisdiction is, thus, well equipped to mitigate distributive inequalities and meet the demands of stringent ecological protection. Sovereignty, therefore, remains the main candidate for reform.

III. Sovereignty and Earth Trusteeship

There are two other important reasons to consider sovereign rights as the main vehicles of just governance of marine natural resources. First, sovereignty remains the most relevant organizing principle of the international system. It has been and will remain a pivotal principle of modern international law and world politics.[173] All institutions and principles of international law rely, directly or indirectly, on state sovereignty, including human rights. Sovereignty is the main source of international law, and it depends on states to make and enforce its provisions. Sovereign statehood has been remarkably resilient institutionally, its significance unchallenged despite the contestations and the emergence of transnational orders. As a supreme and exclusive jurisdiction and control over population and territory, sovereignty also enjoys remarkable support from international law. Compared to other structures and organizational forms, sovereign states remain the main organizational principle and institutional structure capable of effectively securing order, control of territory, and rule enforcement.

Second, although sovereignty is endowed with capacity and potency and enjoys a prominent standing in the international legal order, it has also been recast in normative terms. Sovereignty can, and has been, redefined to promote justice. It is now widely accepted that human rights limit sovereignty as the supreme and highest authority within territorial boundaries and place substantial limits on how states can treat their citizens.[174] As international legal norms, human rights grant each person an extensive perimeter of rights, protecting them from severe political, legal, and social abuses perpetrated by states or non-state actors. Human rights compromise sovereignty, so to speak, in the name of universal standards of legitimate state conduct. Many international law and international political theory scholars argued that sovereignty and human rights are two elements of a single notion of legitimate statehood and rightful state action in the contemporary international legal order.[175] The doctrine of responsibility to protect, adopted in the early 2000s as a reaction to widespread human rights violations and inconsistent global approach to humanitarian catastrophes, also reflects this view that state sovereignty is not a license for governments to trample on human rights.[176] Instead, it implies responsibility for the protection of the people; and that the international community should encourage and help states to exercise this responsibility.[177]

The existence of the international legal regime of human rights, whose primary function is to provide universal standards for regulating the behavior of states toward those under their

[172]*See* Feichtner, *supra* note 169, at 604.

[173]*See* Samantha Besson, *Sovereignty*, Oxford Public International Law (2011), https://opil.ouplaw.com/display/10.1093/law:epil/9780199231690/law-9780199231690-e1472?prd=EPIL.

[174]*See generally* Patrick Macklem, The Sovereignty of Human Rights (2015); Allen E. Buchanan, The Heart of Human Rights (2014).

[175]*See generally* Christian Reus-Smit, *Human Rights and the Social Construction of Sovereignty*, 27 Rev. Int'l Studs. 519, 520 (2001); Anne Peters, *Humanity as the A and Ω of Sovereignty*, 20 Eur. J. Int'l L. 513, 525 (2009); Besson, *supra* note 173; Macklem, *supra* note 71; Miodrag Jovanović & Ivana Krstić, *Human Rights and the Constitutionalization of International Law*, *in* Human Rights in the 21st Century 13, 14–15 (Tibor Várady & Miodrag Jovanović eds., 2020).

[176]See Cristina Lafont, *Sovereignty and the International Protection of Human Rights*, 24 J. of Pol. Phil. 427, 437–40 (2016). *See also* Peters, *supra* note 175, at 522–24.

[177]*See* Press Release, Secretary-General Kofi Annan, Secretary-General Presents His Annual Report to General Assembly, U.N. Press Release SG/SM/7136 (Sept. 20, 1999).

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

jurisdiction and beyond, led some thinkers to argue for the understanding of sovereignty in normative terms of trusteeship. According to Samantha Besson, sovereign states are not the bearers of ultimate value but exist for the sake of the people.[178] In contemporary international law, states are constructed as "trustees for the people" who are committed to their care.[179] The trusteeship function is, of course, a direct implication of human rights. It is also the point of other norms of international law. Ultimately, international law as a whole is oriented to the well-being of human individuals rather than to an unlimited freedom or autonomy of states.[180] Moreover, as Eyal Benvenisti argued, in a world where a high degree of interdependence and integration between countries and communities is an unavoidable fact, the concept of sovereignty can no longer be thought to apply within exclusive territorial borders.[181] Sovereignty should be conceptualized as a trusteeship not only toward a state's own citizens, but also toward humanity at large. As "trustees of humanity," sovereigns have an obligation to take into account the interests of affected others and promote global welfare.[182]

These normative interpretations imply that sovereignty can no longer be defended and justified as a discretionary prerogative unlimited by the demands of domestic and global justice. Sovereign power and sovereign rights are legitimized by acting through the people and for the people, respecting their human rights, delivering welfare, and following international law. This idea of sovereignty, redescribed in terms of trusteeship, also has an important material dimension. According to Eyal Benvenisti, who elaborated the idea of sovereignty as trusteeship most systematically, sovereignty as an absolute control over a territory and resources within a carved-out space, and framed as an exclusive private claim to ownership, is obsolete, inadequate, and not justifiable.[183] The Earth belongs to humanity in common.[184] Sovereign territorial control of portions of Earth's space and resources within it is justified by the regulatory necessity to manage commonly owned resources sustainably and efficiently. The assignment of territorial property to states ought to be regarded as a mode of public regulation and serving the global public good, not as a discretionary and unlimited prerogative. Moreover, in an interconnected global world, using resources has a significant impact on others. The material aspect of sovereignty as trusteeship thus implies the obligation to promote global welfare and to take others' compelling interests into account when managing the environment and using natural resources.[185]

IV. Earth Trusteeship of the Global Commons

The dominance and importance of sovereignty and the possibility of recasting it in terms of trusteeship are two other reasons why sovereignty ought to play the key role in the just governance of the ocean global commons—on the continental shelf and beyond. The concept of sovereignty as trusteeship over the environment that complements the concept of sovereignty as trusteeship of humanity can be said to involve two interlinked dimensions. On the one hand, states are required to manage their territories and natural resources within them sustainably, efficiently, and without

[178] *See* Besson, *supra* note 173 at ¶ 93.

[179] *See* Besson, *supra* note 173, at ¶ 93. *See* also Jeremy Waldron, *Are Sovereigns Entitled to the Benefit of the International Rule of Law?*, 22 Eur. J.Int'L L. 315, 325 (2011).

[180] Many other thinkers argued that sovereignty in the contemporary system of international law is substantially limited by human rights and means, first and foremost, the responsibility to protect the equal moral status of all individuals and provide welfare to citizens that goes well beyond providing the most basic needs of security and survival. *See generally* Patrick Macklem, The Sovereignty of Human Rights (2015); Allen E. Buchanan, The Heart of Human Rights (2014).

[181] *See* Eyal Benvenisti, *Sovereigns as Trustees of Humanity: On the Accountability of States to Foreign Stakeholders*, 107 Am. J. Int'l L. 295, 298 (2013).

[182] *Id.* at 314–18.

[183] *Id.* at 308–12.

[184] *See* Mathias Risse, On Global Justice 109–29 (2012) (presenting the idea of common ownership of the Earth was articulated by many philosophers since the dawn of the modern age—for example, Grotius, Vattel, Locke, and Kant).

[185] *See* Benvenisti, *supra* note 181, at 308–09.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

causing externalities and harm to outsiders. On the other hand, states are required to protect the uninhabited global commons beyond national jurisdiction as part of their duty to protect the integrity of the Earth's planetary domains and ecosystems and to prevent their further depletion for the sake of the whole of humanity, future people, and non-human forms of life. Managing national resources within the state territory justly, sustainably, and efficiently for national economic development and well-being of the people requires politically legitimate, democratic, and human rights-respecting governance and fairness in allocating economic benefits and environmental and social burdens of the resource use within a society. Managing parts of the global commons, the fragile, depleted, biodiverse ocean commons in particular, requires meeting more stringent demands of sustainability and ecological justice.[186]

To express the idea of an ecologically demanding form of trusteeship, Klaus Bosselmann has developed the concept of Earth governance and trusteeship of the global commons.[187] The core precept of Earth governance is that nature is an interconnected web of life, not merely a thing to be instrumentally exploited without limits.[188] As humans, we are members of this web of life and we are duty-bound to reciprocate the care Earth gives us in the community of life. Humans have responsibilities not only for each other and for future human generations, but also for other members of the community of life—all living beings and the Earth as a whole. The core of the Earth Trusteeship is the responsibility to preserve the integrity and health of the Earth as a whole and its ecosystems, as it is the environment in which the wider community of life lives.[189] Care, responsibility, and protection, elevated above rights, liberties, and exclusive and self-serving interests, shape the content of Earth Trusteeship and the prominent role of humans as trustees of Earth's domains and resources.[190] This idea of Earth Trusteeship has been promoted by a number of scholars, legal practitioners, and organizations. It coincides with a number of other initiatives and developments in the landscape of international environmental and human rights law;[191] and aligns with many principles of global justice—human rights, indigenous rights, rights of nature, and intergenerational equity. In particular, the concern for future generations is a familiar feature in international and environmental law, highlighted in a number of treaties and international law instruments, including the Stockholm Declaration,[192] the Rio Declaration,[193] the World Charter for Nature,[194] the Convention on Biological Diversity,[195] and the United Nations Framework Convention on Climate Change (UNFCCC).[196]

[186]*See* Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 Mich. L. Rev. 471, 477 (1970) (developing a similar argument that certain natural resources of domains, such as navigable waters, shorelines, parklands, water resources, are to be held in public trust by the state and managed in the name of broad public interest that concerns free access and the preservation of ecosystem integrity of these domains).

[187]*See* Klaus Bosselmann, Earth Governance: Trusteeship of the Global Commons 39–47 (2015); Klaus Bosselmann, *Environmental Trusteeship and State Sovereignty: Can They be Reconciled?,* 11 Transnat'l Legal Theory 47, 7–11 (2020).

[188]*See* Klaus Bosselmann, *The Hague Principles: Responsibilities and Rights concerning Humans and the Earth*, *in* Earth Trusteeship. Mother Earth and a New 21st-Century Governance Paradigm 115, 120–21 (Justin Sobion & Hans van Willenswaard eds., 2023).

[189]*See The Hague Principles for a Universal Declaration on Human Responsibilities and Earth Trusteeship*, Earth Trusteeship (2018), https://www.earthtrusteeship.world/the-hague-principles-for-a-universal-declaration-on-human-responsibilities-and-earth-trusteeship/ (articulating the concept of Earth Trusteeship, which endorsed collaboration among representatives from a wide spectrum of environmental, indigenous, and human rights organizations which came together under the auspices of the Earth Trusteeship Initiative (ETI)).

[190]*See* Klaus Bosselmann, *Saving the Earth for Future Generations: Some Reflection*, 54 Env'l Pol'y & L. 109 (2024).

[191]*See, e.g.,* U.N. Docs. A/75/982 (2021); *Global Pact for the Environment* (Draft Int'l Treaty 2017); *Global Movement for the Rights of Nature* (Int'l Initiative); *The Earth Charter* (Earth Charter Comm'n 2000); G.A. Res. 73/284, art. 5 (2019).

[192]G.A. Res. 2398 (XXII) & 2581 (XXIV), principle 1 (1969).

[193]G.A. Res. 151/26, at principle 3 (1992).

[194]G.A. Res 37/7, at pmbl. (1982).

[195]Convention on Biological Diversity, pmbl., art. 2, May 6, 1992, 1760 U.N.T.S. 30619.

[196]United Nations Framework Convention on Climate Change, pmbl., May 9, 1992, S. Treaty Doc No. 102-38, 1771 U.N.T.S. 107.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

The concept of Earth Trusteeship can serve as a starting point for states to develop a suitable model for the 21st century governance of the global commons, oceans in particular. Nationally, each state acts as a trustee of its territory and resources. Globally, states act jointly as trustees of the global commons such as the oceans, the atmosphere, or Antarctica. The main principles of holding the global commons collectively in trust are shared concern, collective good raised above the economic and geopolitical interests of individual commoners, the duty of individual actors to do the maximum share in contributing to the protection of the marine environment, biodiversity, and mitigation of climate change through cooperative management. In the context of the ocean commons, Earth Trusteeship requires prioritizing the protection of the marine environment for its own sake, preserving its integrity and functions for the common good of humanity and future generations, and mitigating the climate crisis and avoiding further environmental degradation. Concerning the continental shelf that has been the subject of this Article, the new approach requires us to see it as biota teeming with life and the habitats for *benthos*—the community of precious and still largely unknown seafloor organisms that thrive and reproduce through unique metabolic mechanisms—rather than seeing it as parceled out areas rich in minerals, hydrocarbons, and harvestable living resources.

States are uniquely positioned to act as Earth trustees of the global commons. Transforming from sovereigns over natural resources to trustees of the Earth who conserve, protect, and restore the integrity of Earth's ecological systems requires they give up full property-like claims involved in sovereign rights to marine natural resources. States may retain jurisdictional rights over already acquired marine areas to make and enforce rules connected to Earth Trusteeship and to protect them against potential predators, explorers, and extractors. In any case, Earth Trusteeship clearly does not support the usual understanding of resource rights and the full bundle of powers as described above.[197] Sovereign resource rights need to be restructured to be reconciled with Earth Trusteeship. Although they may include exclusive jurisdictional rights to make and enforce the boundaries and the rights of access and the rules connected to Earth Trusteeship, they cannot involve a full bundle of property rights to natural resources, especially not the right of withdrawal, the right of alienation, and the right to derive income from a given asset. Only when these instances of rights are renounced would sovereigns act as trustees of the global commons. This role would align with the trusteeship duty towards the Earth as a whole and all life. It would also provide a genuine solution to the justice problems discussed above—unequal shares of natural wealth for exclusive national benefit, (ab)use of resources for unjust ends, and extractive reification of environmental domains for instrumental purposes.

E. Conclusion

This Article focused on the continental shelf as a distinct invention of the law of the sea extending sovereign rights into the ocean global commons. The main aim was to show that the extension of sovereign rights to natural resources has had three problematic consequences from the point of view of justice. Three issues were identified and discussed:Distributive inequality, unjust politics of resource sovereignty, and legal and economic reification of marine ecosystems. Concerning the first, I argued that the establishment of zones of sovereign rights in the ocean commons entrenched the division of the Earth's exploitable space into unequal territorial and natural resource holdings. This unequal division, unjust from the distributive point of view, is all the more problematic because sovereign rights preclude the possibility of sharing natural resources and managing them collectively. Concerning the second, I argued that the exercise of sovereign resource rights in the national maritime zones features the same political defects as on state territory—authoritarian and human rights-violating resource policies, corrupt capture of resource rents and revenues, and other issues concerning uneven social and environmental impacts of

[197]See Benvenisti, *supra* note 181, at 311–12; Bosselmann, *supra* note 188, at 109.

https://doi.org/10.1017/glj.2025.28 Published online by Cambridge University Press

resource use. Although these defects are corrigible through the democratization and accountability reforms, the question is whether such improvements are a sufficient solution for the governance of the distinct, fragile, and already polluted and depleted marine environment. As I have pointed out, even democratic resource sovereignty promotes legal and economic reification of the ecological space. Sovereign rights legally construct marine natural resources as environmentally disembedded, extractable units and reify them as economic goods, turning them into objects of property rights of states that extract them for their economic benefit. The extraction undermines marine ecological spaces' abilities to flourish and conflicts with the demands of ecological justice—more stringent ecosystem protection widely considered necessary to restore the health of the depleted and polluted marine environment.

In the last part of the Article, I asked if sovereignty should be abandoned or whether sovereign rights can be reinvented to promote justice in the ocean commons. I have argued that given the urgent need to establish effective regimes of environmental protection in the depleted and polluted oceans, sovereign rights have to play a continuous role in ocean governance. The argument for sovereign rights as key institutions of ocean governance in the era of climate change and biodiversity crisis was supported by brief discussions of (a) the defects of available alternatives to sovereign rights; (b) the open access regime of the high seas and the common property regime in the deep seabed beyond national jurisdiction; and (c) the possibility of the reinvention and transformation of sovereignty as a form of Earth Trusteeship of the global commons. Within the paradigm of Earth Trusteeship, states hold the global commons collectively in trust and use their sovereign rights not to extract maximum economic benefit but to protect the marine environment for its own sake, preserve its integrity and functions for the common good of humanity and future generations, and mitigate the climate crisis and avoid further environmental degradation.

Acknowledgments. The author would like to express gratitude and appreciation to Alexandra Ehresmann for her dilligent research assistance with data and reference collection and editing. The author also thanks an anonymous reviewer for helpful suggestions that greatly improved this piece.

Competing Interests. The author declares none.

Funding Statement. No specific funding has been declared in association with this Article.

Cite this article: Gümplová P (2025). Justice on the Seafloor: A Critical Appraisal of the Extension of Sovereign Rights to Natural Resources on the Continental Shelf. *German Law Journal*, 1–32. https://doi.org/10.1017/glj.2025.28