

Second Wave Due Diligence: The Case for Incorporating Free, Prior, and Informed Consent into the Deep Sea Mining Regulatory Regime

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This Article calls for the norm of free, prior, and informed consent (FPIC) for indigenous peoples to be applied to deep sea mining (DSM) projects carried out in the international seabed, particularly in the Pacific region, where numerous indigenous communities stand to be directly and disproportionately impacted by this new extractive industry. Our argument, while novel, relies on core prescriptions of Part XI of the United Nations Convention on the Law of the Sea (UNCLOS) requiring compliance with international law in general, including pertinent rules of international environmental and indigenous rights law. UNCLOS's clear parameters on the prevention of harm to the marine environment, expounded upon by the International Tribunal for the Law of the Sea in a series of key decisions, have created a due diligence standard that is imposing ever higher duties on an increasingly wide range of actors, including in areas beyond national jurisdiction. This standard is evolving alongside a robust norm requiring the FPIC of indigenous peoples threatened by large-scale extractive activities, even if those activities are not directly carried out on indigenous land. When applied to DSM, whose exploratory stage has already resulted in an array of adverse impacts to Pacific indigenous peoples, these normative legal developments coalesce into a compelling argument for placing impacted indigenous peoples into

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key decisionmaking roles. Such an approach, which we call a “second wave” of due diligence, represents a decisive break from a destructive history in which the Pacific served as a proving ground for the experiments of others, and a concrete step toward sustainable, rights-based development in the twenty-first century and beyond.

I. INTRODUCTION	4
II. IMPACTS OF DSM	9
III. PART XI OF UNCLOS AND THE DSM REGULATORY REGIME.....	16
A. Common Heritage of Mankind	16
B. The Protection of the Marine Environment and of Human Life	20
IV. FREE, PRIOR, AND INFORMED CONSENT FOR EXTRACTIVE ACTIVITY IMPACTING INDIGENOUS PEOPLES.....	26
A. United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).....	32
B. International Treaties & Treaty Bodies	35
C. Case Law & Jurisprudence	40
D. Other Influential Support	42
V. “SECOND WAVE” DUE DILIGENCE: INCORPORATING FPIC INTO THE DSM REGIME	47
A. Due Diligence in the UNCLOS Context.....	47
VI. CONCLUSION	55

I. INTRODUCTION

The Pacific Ocean is the site of a new global gold rush,¹ as multiple countries and multinational corporations scramble to obtain rights to explore and ultimately exploit the mineral-rich deposits located in the deep seabed within and beyond the maritime jurisdiction of many Pacific Island (PI) states.² While the exact value of these mineral deposits is not

1. See, e.g., Brian Clark Howard, *The Ocean Could Be the New Gold Rush*, NAT'L GEOGRAPHIC (July 13, 2016), <https://news.nationalgeographic.com/2016/07/deep-sea-mining-five-facts>; Rebecca Trager, *Countries Poised to Roll Out Deep Sea Mining in New 'Gold Rush'*, CHEMISTRY WORLD (Mar. 7, 2017), <https://www.chemistryworld.com/news/countries-poised-to-roll-out-deep-sea-mining-in-new-gold-rush/2500509.article>.

2. ECORYS, *Study to Investigate State of Knowledge of Deep Sea Mining: Final Report Annex 5 Ongoing and Planned Activity* (2014), https://webgate.ec.europa.eu/maritimeforum/system/files/Annex%205%20Ongoing%20and%20planned%20activity_rev.pdf, 9-14. See also Gemima Harvey, *The Deep Sea Resources Rush*, THE DIPLOMAT (Aug 30, 2013), <https://thediplomat.com/2013/08/the-deep-sea-resources-rush/>; *Scramble for the seabed*, THE ECONOMIST (Dec 30, 2008), <https://www.economist.com/special-report/2008/12/30/scramble-for>

certain, their scale has been described by commentators as “staggering,”³ worth potentially hundreds of billions of dollars.⁴ As of this writing, the International Seabed Authority (ISA)—the body that, under the United Nations Convention on the Law of the Sea (UNCLOS), administers all mineral-related activities in the international seabed beyond areas of national jurisdiction, or “the Area”—has issued twenty-nine deep sea mining (DSM) exploration licenses.⁵ Twenty-two of these are located in the Pacific Ocean, with sixteen licenses designated for exploration of a vast undersea expanse known as the Clarion-Clipperton Fracture Zone (CCFZ) located approximately five hundred miles southeast of Hawai’i.⁶ To illustrate the scale of individual licenses, one British company, UK Seabed Resources, has secured from the ISA exploration rights to an area larger than the entire United Kingdom.⁷

At the same time that exploration is proceeding in the Area, there has been significant interest in exploiting deep sea minerals located in the national waters of individual states, typically in their exclusive economic zones (EEZs) or extended continental shelves.⁸ Many if not most PI

the-seabed.

3. David Shukman, *UK Seabed Resources Joins Deep-Ocean Mineral-Mining Rush*, BBC NEWS (Mar. 14, 2013), <https://www.bbc.com/news/science-environment-21774447>.

4. The Clarion-Clipperton Fracture Zone (CCFZ), which has been identified as having the richest supply of manganese nodules, is believed to contain deposits worth hundreds of billions of dollars. Kevin Douglas Grant, *Deep-sea mining could make 'largest footprint of any single human activity on the planet'*, PRI (Dec 19, 2013), <https://www.pri.org/stories/2013-12-19/deep-sea-mining-could-make-largest-footprint-any-single-human-activity-planet>.

5. *Deep Seabed Minerals Contractors*, INT’L SEABED AUTH (2018), <https://www.isa.org.jm/deep-seabed-minerals-contractors> [hereinafter ISA DSM Contractors].

6. The CCFZ, an abyssal plain as wide as the continental United States, spans 4.5 million square kilometers (1.7 million square miles) between Hawaii and Mexico and contains trillions of polymetallic nodules. *The Clarion-Clipperton Zone: Valuable Minerals and Many Unusual Species Can Be Found on the Eastern Pacific Ocean Seafloor*, PEW CHARITABLE TR. (Dec. 15, 2017), <http://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2017/12/the-clarion-clipperton-zone>.

7. David Shukman, *Deep Sea Mining Licences Issued*, BBC NEWS (July 23, 2014), <https://www.bbc.com/news/science-environment-28442640>. According to ISA Regulations, over the first eight years of the exploration contract, half of the allotted area is to be relinquished. *Overview*, INT’L SEABED AUTH., <https://www.isa.org.jm/deep-seabed-minerals-contractors/overview>.

8. *See* United Nations Convention on the Law of the Sea arts. 55, 57, Dec. 10, 1982, 1833 U.N.T.S. 397 [hereinafter UNCLOS]. UNCLOS defines the “Exclusive Economic Zone” as “an area beyond and adjacent to the territorial sea,” extending to two hundred nautical miles from a baseline constructed from points on the land territory of the state. *Id.* While an analysis of the domestic legal frameworks of individual PI states relative to deep sea mining (DSM) activities within national borders is beyond the scope of this article, an independent review of the DSM legislation of 14 PI states published in 2016 includes a detailed country mapping of available legislation and regulations. *See generally* BLUE OCEAN LAW & PAC. NETWORK ON GLOBALISATION, RESOURCE ROULETTE: HOW DEEP SEA MINING AND INADEQUATE REGULATORY FRAMEWORKS IMPERIAL THE PACIFIC AND ITS PEOPLES 10-17 (2016),

countries also possess valuable deposits in their seabed, and have begun to negotiate exploitation with mineral prospectors.⁹ Others have sponsored companies' exploration licenses in the Area.¹⁰ Plans for the world's first commercial deep sea mine have been underway for more than a decade in Papua New Guinea's territorial sea, with commercial-scale mining projected to begin within the next year or two.¹¹ Meanwhile, the European Union (EU) has committed 4.4 million Euros to the Secretariat of the Pacific Community (SPC)-EU Deep Sea Minerals Project as part of its initiative to obtain access to new markets for raw materials.¹² The Project has produced regional legislative frameworks to regulate DSM in PI states, which largely serve as greenlights for industry to move forward with resource exploitation.¹³

http://nabf219anw2q7dgn1rt14bu4.wpengine.netdna-cdn.com/files/2016/06/Resource_Roulette-1.pdf [hereinafter RESOURCE ROULETTE].

9. The three main types of mineral deposits of commercial interest in the region are: 1) seafloor massive sulfides (SMS), which are formed along hydrothermal vents and contain large deposits of gold, silver, copper, and zinc; 2) manganese nodules, which are small potato-sized compounds formed over millions of years on abyssal plains, and contain large deposits of manganese, nickel, copper, and other rare earth elements; and 3) cobalt-rich crusts (CRC), which form along seamounts and contain large deposits of cobalt and a wide array of other valuable metals such as copper, platinum, and manganese. Kathryn A. Miller et al., *An Overview of Seabed Mining Including the Current State of Development, Environmental Impacts, and Knowledge Gaps*, 4 FRONTIERS MARINE SCI. 418 (Jan. 10, 2018), <https://doi.org/10.3389/fmars.2017.00418>. Papua New Guinea, Fiji, Tonga, Vanuatu, and the Solomon Islands are all known to have significant quantities of SMS. The waters of Kiribati, the Cook Islands, and to a lesser extent, Niue and Tuvalu all contain manganese nodules, while CRCs occur in Kiribati, the Marshall Islands, the Federated States of Micronesia, Niue, Palau, Samoa, and Tuvalu. PRECAUTIONARY MANAGEMENT OF DEEP SEA MINING POTENTIAL IN PACIFIC ISLAND COUNTRIES, WORLD BANK 15 (May 2, 2016), <http://pubdocs.worldbank.org/en/125321460949939983/Pacific-Possible-Deep-Sea-Mining.pdf>. Tonga, Fiji, Vanuatu, and the Cook Islands, among others, have issued exploration licenses for prospecting in their waters. See RESOURCE ROULETTE, *supra* note 8, at 10-17.

10. Kiribati, Nauru, and Tonga are all currently sponsoring exploration in the Area. Srivani Venna, *Tuvalu and Kiribati Join Group to Set Seabed Mining Rules*, MINING TECH. (Feb. 17, 2015), <https://www.mining-technology.com/news/newstuvalu-and-kiribati-join-group-to-set-seabed-mining-rules-4514539/>.

11. Miller et al., *supra* note 9.

12. SPC-EU Deep Sea Minerals Project, *About the SPC-EU Deep Sea Minerals Project*, SECRETARIAT PAC. CMTY, (2018), <http://gsd.spc.int/dsm> [hereinafter SPC-EU DSM Project]. A non-binding 2018 European Parliament resolution calls for a moratorium on commercial DSM exploitation licenses until the effects of DSM are better understood; as yet it does not seem to have resulted in an actual policy shift with respect to either the Raw Materials Initiative or European states' national DSM agendas. European Parliament Resolution of 16 January 2018 on International Ocean Governance: An Agenda for the Future of Our Oceans in the Context of the 2030 SDGs, EUR. PARL. DOC. 2017/2055(INI) ¶ 42 (2018).

13. See, e.g., SPC-EU EDF10 DEEP SEA MINERALS PROJECT, PACIFIC-ACP STATES REGIONAL LEGISLATIVE AND REGULATORY FRAMEWORK FOR DEEP SEA MINERALS EXPLORATION AND EXPLOITATION (2012) [hereinafter RLRFF]. While emphasizing the benefits of DSM throughout the document, the Regional Legislative and Regulatory Framework (RLRF) cites unsubstantiated indications from DSM operators that "the anticipated impact of DSM activities on

While the potential adverse environmental impacts of DSM are increasingly documented,¹⁴ far less attention has been paid to the range of human rights violations, particularly of the rights of indigenous peoples, which may be occasioned by DSM.¹⁵ This oversight is attributable to a legal assumption among interested parties that because most DSM activity is designated for areas beyond national jurisdiction (ABNJ), namely in the Area, the rights of indigenous peoples, including those living in coastal states closest to proposed DSM sites, are simply not implicated. This assumption is flawed in two respects. First, although DSM prospecting and exploration is now being done mostly in the Area (with exploitation to follow), it is also occurring in the EEZs of Pacific Island states—and in some cases, in high traffic seas close to coastal indigenous communities dependent on the ocean for subsistence. Second, the obligations that international law imposes on state and non-state actors engaged in DSM flow not because of where these activities occur, but rather where their effects are felt. So long as indigenous peoples can credibly assert that DSM activities—whether within or beyond the EEZs of their enclosing states—threaten to adversely impact them or the enjoyment of their rights with regard to their traditional lands, territories, and resources, they may properly invoke the protections of international law.

Accordingly, the global DSM regime must be recalibrated to comply

fish (in the less deep water column) is extremely minimal.” *Id.* § 20.2. The Framework also claims that “DSM exploration... may have almost no impact in early evaluation stages,” *id.* § 18.6. It states that an Environmental Impact Assessment (EIA) may or may not be necessary depending on the project size, and that different levels of EIAs may also be sought, *id.* § 18.8, allowing activities that will have a “minor or transitory impact” or those with “well-known effects” to proceed without any EIA. *Id.* §§ 18.6, 18.8-18.9. The RLRf also reframes potentially negative impacts as opportunities for research, science and education, while insufficiently addressing any negative impacts of DSM in the initial, prospecting phase. *Id.* §§ 4.5-4.8. For more, see BLUE OCEAN LAW, AN ASSESSMENT OF THE SPC REGIONAL LEGISLATIVE AND REGULATORY FRAMEWORK FOR DEEP SEA MINERALS EXPLORATION AND EXPLOITATION (2016), <http://blueoceanlaw.com/publications>.

14. See, e.g., Diva J. Amon et al., *Insights into the Abundance and Diversity of Abyssal Megafauna in a Polymetallic-Nodule Region in the Eastern Clarion-Clipperton Zone*, 6 NATURE: SCI. REPORTS 1, 6-8 (2016), <https://www.nature.com/articles/srep30492.pdf>. See also Cindy Lee Van Dover et al., Correspondence, *Biodiversity Loss from Deep-Sea Mining*, 10 NATURE GEOSCIENCE 464, 464 (2017); Andrew J. Gooday et al., *Giant Protists (Xenophyophores, Foraminifera) Are Exceptionally Diverse in Parts of the Abyssal Eastern Pacific Licensed for Polymetallic Nodule Exploration*, 207 BIOLOGICAL CONSERVATION 106, 114-15 (2017); Adrian G. Glover & Craig R. Smith, *The Deep-Sea Floor Ecosystem: Current Status and Prospects of Anthropogenic Change by the Year 2025*, 30 ENVTL. CONSERVATION 219, 230, fig.3 (2003); Daniel O.B. Jones et al., *Biological Responses to Disturbance from Simulated Deep-Sea Polymetallic Nodule Mining*, 12 PLOS ONE 2, 18 (2017), <https://doi.org/10.1371/journal.pone.0171750>; Miller et al., *supra* note 9, at 15.

15. See Julie Hunter, Pradeep Singh, & Julian Aguon, *Broadening Common Heritage: Addressing Gaps in the Deep Sea Mining Regulatory Regime*, HARV. ENVTL. L. REV. (Apr. 16, 2018), <http://harvardelr.com/2018/04/16/broadening-common-heritage/>.

with international legal requirements to protect the rights of indigenous peoples, particularly in the context of extractive industries. Drawing on developments in international environmental law regarding the legal norm of due diligence, we argue that indigenous peoples' right to free, prior, and informed consent (FPIC) must be incorporated into the DSM regulatory regime. This shift, while novel, is in fact supported by a close reading of the UNCLOS, the treaty establishing the governance framework for DSM. Part XI of the UNCLOS defines seabed minerals of the Area as belonging to the common heritage of mankind, and requires that any DSM activities be undertaken in conformity with the larger corpus of international law. Thus, per the terms of the treaty itself, the ISA is already mandated to comply with developments in international law in its administration of the DSM regime. The regime must therefore heed applicable developments in international environmental and indigenous rights law, including the obligation of states and private actors to obtain the FPIC of indigenous peoples ahead of large-scale and potentially destructive extractive projects such as DSM.

Moreover, under the UNCLOS, the international law norm of due diligence applies squarely to DSM. By itself, due diligence is simply a standard used across the many disparate fields of international law to evaluate state compliance with various international legal obligations. However, numerous advances in international environmental law—including decisions of the International Court of Justice (ICJ), findings of treaty monitoring bodies, and rulings of the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS)—suggest that the normative content of due diligence is steadily expanding, imposing ever higher duties and obligations on states and non-state actors respecting the protection of the marine environment. In particular, a broad and progressively conceived notion of due diligence is gaining traction in the law of the sea context, shifting its fixation with strict maritime boundaries. Under the new view, the duties of states in relation to marine environmental protection have become less a matter of where their borders are fixed, and more a matter of where they exercise control over a given actor or activity. In other words, wherever it can be said that a state is exercising jurisdiction or control, that state can be held liable for potential harms caused to third parties.

As this Article shall explain, the steadily expanding scope of the due diligence norm—particularly as it has developed in the law of the sea context—can be read as encompassing state obligations not only under international environmental law but also under international human and indigenous rights law. We characterize this natural progression as due diligence's "second wave"—an innovation in international law that, while

unprecedented, is anchored in the plain language of the UNCLOS and situated well within the parameters of prevailing legal regimes. The argument proceeds as follows.

Part II of this Article details some of the environmental and social impacts of DSM, drawing from an established body of scientific studies, as well as documented impacts reported by indigenous Pacific Islanders. Part III lays out the contours of the international legal framework for DSM, as set forth in UNCLOS and its implementation agreements. It examines UNCLOS provisions that mandate the protection of marine and human environments in the Area, and explains how industry proponents have nonetheless dominated the discourse so as to exclude consideration of the rights of indigenous peoples who may be impacted by DSM. Part IV sets out the international indigenous rights regime as enshrined in numerous international instruments, in particular as it pertains to the obligation of international actors to obtain the FPIC of indigenous peoples prior to commencing extractive activity with the potential to adversely impact them. Part V then merges the two bodies of law, contending that the former cannot exist in a vacuum or continue to ignore the robust developments in the latter, particularly when DSM's impacts threaten the livelihoods and rights of indigenous islanders. Part V explains that there is no true doctrinal obstacle to incorporating FPIC into the DSM regulatory regime, and that, indeed, FPIC should be viewed as part of a general due diligence obligation on the part of states and non-state actors engaged in DSM. The Article concludes with reflections on what these normative developments entail for emerging DSM regimes.

II. IMPACTS OF DSM

In contrast to relatively benign depictions of DSM in some regulatory documents and Environmental Impact Assessments (EIAs),¹⁶ it has become increasingly apparent that DSM poses a grave threat to many vital seabed functions, including biodiversity and climate regulation. In order to extract minerals from the deep seabed, large, remote vehicles will chemically leach or physically cut crust from substrate on the seafloor or use highly pressurized water to strip the crust.¹⁷ These methods will produce large sediment plumes and involve the discharge of waste and tailings back into the ocean, significantly disturbing seafloor

16. *See supra* note 13. *See also* NAUTILUS MINERALS NIUGINI LIMITED, ENVIRONMENTAL IMPACT STATEMENT (2008), [http://www.nautilusminerals.com/irm/content/pdf/environment-reports/Environmental%20Impact%20Statement%20Executive%20Summary%20\(English\).pdf](http://www.nautilusminerals.com/irm/content/pdf/environment-reports/Environmental%20Impact%20Statement%20Executive%20Summary%20(English).pdf), 14-15, 26-34 [hereinafter *Nautilus EIS*].

17. INTERNATIONAL SEABED AUTHORITY, COBALT-RICH CRUSTS 3 (2008), <https://www.isa.org.jm/sites/default/files/files/documents/eng9.pdf>.

environments.¹⁸ Several studies have assessed short and long-term environmental impacts of small-scale experimental DSM, finding immediate adverse impacts on ecosystem health, species abundance, and biodiversity.¹⁹ Most studies found little to no recovery of mined locations, even years after the experimental operations concluded.²⁰ Industrial-scale operations will be both more intense—operating continuously for significant periods²¹—and more extensive, “devastat[ing] much larger areas of seafloor,” on the order of 10,000 to 100,000 square kilometers.²² Commercial mining operations are anticipated to have far greater environmental impacts than exploratory DSM activities, including seabed ecosystem destruction and species extinction;²³ disturbance of large marine animals;²⁴ contamination of fish and other larger pelagic animals from heavy metals and other toxic substances;²⁵ and potential oil spills

18. Miller, *supra* note 9, at 15. See also Cindy Lee Van Dover, *Impacts of Anthropogenic Disturbances at Deep-Sea Hydrothermal Vent Ecosystems: A Review*, 102 MARINE ENVTL. RES. 59, 65–66 (2014); Jochen Halfar & Rodney M. Fujita, *Danger of Deep-Sea Mining*, 316 SCIENCE 987, 987 (2007); Katia Moskvitch, *Health Check for Deep Sea Mining: European Project Evaluates Risks to Delicate Ecosystems*, 512 NATURE 122, 123 (2014), <https://perma.cc/H4R8-CSWD>.

19. The studies examined a single disturbance event over areas ranging from one to eleven square kilometers. See Glover & Smith, *supra* note 14, at 230-31 (collecting studies); *id.* fig.3; Dmitry M. Miljutin et al., *Deep-Sea Nematode Assemblage Has Not Recovered 26 Years After Experimental Mining of Polymetallic Nodules (Clarion-Clipperton Fracture Zone, Tropical Eastern Pacific)*, 58 DEEP SEA RES. I 885, 886, 891 (2011) (also covering collecting studies); H. Bluhm et al., *Megabenthic Recolonization in an Experimentally Disturbed Abyssal Manganese Nodule Area*, 13 MARINE GEORESOURCES & GEOTECHNOLOGY 393, 393 (1995); T. Radziejewska, *Responses of Deep-Sea Meiobenthic Communities Sediment Disturbance Simulating Effects of Polymetallic Nodule Mining*, 87 INT’L REV. HYDROBIOLOGY 457, 466-69 (2002); Nicole Rodrigues et al., *Impact of Benthic Disturbance on Megafauna in Central Indian Basin*, 48 DEEP-SEA RES. II 3411, 3422-24 (2001); Y. Shirayama, *The Responses of Deep-Sea Benthic Organisms to Experimental Removal of the Surface Sediment*, IV OCEAN MINING SYMPOSIUM 77, 78-80 (2001).

20. See, e.g., H. Bluhm, *Re-establishment of an Abyssal Megabenthic Community After Experimental Physical Disturbance of the Seafloor*, 48 DEEP-SEA RES. II 3841, 3841 (2001) (abundance and diversity of megafauna remained below pre-disturbance levels seven years after disturbance); T. Fukushima et al., *The Characteristics of Deep-sea Epifaunal Megabenthos Community Two Years After an Artificial Rapid Deposition Event*, 39 PUBL. SETO MARINE LAB. 17, 25–6 (2000) (two years after disturbance abundance of megafauna remained depressed). *But see* C. Borowski, *Physically Disturbed Deep-sea Macrofauna in the Peru Basin, Southeast Pacific Revisited 7 Years After the Experimental Impact*, 48 DEEP-SEA RES. II 3809, 3819–20, 3828–29 (2001) (macrofaunal abundance achieved pre-disturbance levels seven years after disturbance, but macrofaunal diversity remained depressed).

21. Glover & Smith, *supra* note 14, at 231.

22. *Id.*

23. See, e.g., Cindy Lee Van Dover et al., *supra* note 14, at 1; Andrew J. Gooday et al., *supra* note 14, at 114–15; Glover & Smith, *supra* note 14, at 230, fig.3.

24. See, e.g., Daniel O.B. Jones et al., *supra* note 14, at 18. See also Diva J. Amon et al., *supra* note 14, at 6–8.

25. HELEN ROSENBAUM & FRANCIS GREY, DEEP SEA MINING CAMPAIGN, ACCOUNTABILITY ZERO: A CRITIQUE OF THE NAUTILUS MINERALS ENVIRONMENTAL AND SOCIAL BENCHMARKING ANALYSIS OF THE SOLWARA 1 PROJECT 10 (2015), <http://www.deepseamining>

and other surface accidents,²⁶ leading to increased acidification and destruction of coral reefs, among other harms.²⁷ Environmental impacts arising from the onshore processing of harvested minerals, which would likely be concentrated in less developed countries, are also expected to be significant.²⁸ Recent research suggests that the substantial environmental damage caused by DSM activities would be largely irreversible.²⁹

Many of these projected environmental impacts would likewise have destructive effects on human communities. In addition to the value loss from species extinction and biodiversity, including foreclosed future scientific or medical discoveries with respect to these resources,³⁰ DSM could affect food security, polluting fish stocks and affecting health through the consumption of contaminated marine organisms.³¹ Many fisheries, such as tuna, are wide-ranging, and their contamination could affect populations and fisheries in multiple regions.³² DSM in the Area is

outfourdepth.org/wpcontent/uploads/accountabilityZERO_web.pdf.

26. RICHARD STEINER, INDEPENDENT REVIEW OF THE ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED NAUTILUS MINERALS SOLWARA 1 SEABED MINING PROJECT, PAPUA NEW GUINEA 5–6 (2009), <http://www.deepseaminingoutfourdepth.org/wp-content/uploads/Steiner-Independent-review-DSM1.pdf> (conducted for the Bismarck-Solomon Seas Indigenous Peoples Council) [hereinafter Steiner EIS Review]. Most PI nations do not have the resources or capacity to clean up oil spills or other major marine disasters. See RESOURCE ROULETTE, *supra* note 8, at 7, 21, 31 (“Many PI nations have only a few patrol boats and lack the air or marine power to survey their waters effectively, depending upon external powers to do so.”)

27. Geophysicist Maurice Tivey of Woods Hole Oceanographic Institution noted that the highly acidic slurry piped out of the seabed “could acidify a whole reef” if an accident occurred. Brooke Jarvis, *Deep-Sea Mining—Bonanza or Boondoggle?*, NOVANEXT PBS (Jan. 25, 2013), <https://www.pbs.org/wgbh/nova/article/deep-sea-mining/>; Nautilus EIS, *supra* note 16, at 33.

28. Till Markus & Pradeep Singh, *Promoting Consistency in the Deep Seabed: Addressing Regulatory Dimensions in Designing the International Seabed Authority’s Exploitation Code*, 25 REV. EUR. COMMUNITY & INT’L ENVTL. L. 347, 360-361 (2016). Onshore processing has been singled out as one of the three chief environmental impacts that would arise from DSM activities. See J.M. Markussen, *Deep Seabed Mining and the Environment: Consequences, Perceptions and Regulations*, in GREEN GLOBE YEARBOOK OF INTERNATIONAL CO-OPERATION ON ENVIRONMENT AND DEVELOPMENT 33 (H.O. Bergesen & G. Parmann eds., 1994).

29. Cindy Lee Van Dover et al., *supra* note 14, at 464–65. An experimental deep seabed dredging expedition illustrated that some of the mined areas of the deep seabed had shown little sign of recovery after nearly three decades and would potentially never return to pre-disturbance conditions. See Miljutin, *supra* note 19 at 889-91, 895-96 (finding that the 26-year period post-disturbance was “not sufficient for the nematode assemblage to re-establish its former density, diversity, and structure,” and that “[i]f the environment returns to its pre-disturbance condition slowly (as in the present study), the original living community may never be re-established.”).

30. Amy E. Wright, *Medicines from the Deep Sea: Discoveries to Date*, NAT’L OCEANIC ATMOSPHERE ADMIN. (2003), <https://oceanexplorer.noaa.gov/explorations/03bio/background/medicines/medicines.html>.

31. See *Environmental Impacts and Risks of Deep-Sea Mining*, JPI OCEANS, <https://miningimpact.geomar.de> (describing an ongoing investigation of the impacts of DSM in the CCFZ).

32. HELEN ROSENBAUM, DEEP SEA MINING CAMPAIGN, MININGWATCH CAN., OUT OF OUR

likely to impact major fisheries, as well as wide-ranging species such as sharks, whales, sea turtles, and other marine animals of cultural significance to indigenous peoples that move in and out of national waters.³³ Similarly, the anticipated increase in toxic plumes, accidents, and spills stemming from DSM activities would be difficult to contain, potentially resulting in widespread human harm whether DSM occurs in national waters or in the Area. Such environmental harms are likely to disproportionately affect indigenous Pacific Islanders, both because marine resources are integral to their way of life, and because the majority of DSM activity, including that slated for the Area, is located in the Pacific. Although PI states could potentially gain some revenue through their involvement with DSM, either from sponsoring DSM in the Area³⁴ or pursuing DSM domestically, it is unclear whether royalties would be sufficient to compensate for substantial (and disproportionately high) environmental and human harms, or whether hypothetical benefits would cover liability costs for transboundary damage claims.³⁵

Moreover, if, as has been predicted, the destruction of deep sea ecosystems caused by DSM results in the release of sequestered methane on the ocean floor or otherwise interferes with not yet fully understood processes of global climate regulation, the impacts could be devastating on a far greater level. Indeed, researchers have explained that “[t]here is more methane on the ocean floor than there are other forms of fossil fuels left in the oceans, and if it were all released it would be a doomsday climatic event.”³⁶ The release of methane from DSM in the Area would

DEPTH: MINING THE OCEAN FLOOR IN PAPUA NEW GUINEA 24 (2011), <http://www.deepseaminingoutofourdepth.org/wp-content/uploads/Out-Of-Our-Depth-low-res.pdf> (“Jerome Tioti from Papua New Guinea’s national Fisheries Authority argues that ‘vast areas could be polluted and with tuna being a highly migratory species, contamination of the stock could have dire consequences for the entire region, far overstretching the immediate impact zone of the mine.’”).

33. See Miller et al., *supra* note 9, at 2, 13-16. See also Paolo Luschi, *Long-Distance Animal Migrations in the Oceanic Environment: Orientation and Navigation Correlates*, 2013 ISRN ZOOLOGY (2003), 6-8, <https://doi.org/10.1155/2013/631839>.

34. See, e.g., *Nauru company eyes huge economic potential in ocean floor mining*, RADIO NEW ZEALAND (Oct. 11, 2010), <https://www.radionz.co.nz/international/pacific-news/193045/nauru-company-eyes-huge-economic-potential-in-ocean-floor-mining>.

35. With respect to the Area, a sponsoring state is liable for any damage incurred by any sponsored mining activity, unless “the State Party has taken all necessary and appropriate measures to secure effective compliance.” UNCLOS, *supra* note 8, art. 139. With respect to domestic mineral royalties, the development potential of PI states could be affected by limited capacity to manage resource wealth and effectively regulate and monitor operations, as well as endemic corruption in jurisdictions like Papua New Guinea (PNG). See RESOURCE ROULETTE, *supra* note 8, at 6-9 (discussing “resource curse”). Small countries such as Tonga already face challenges enforcing taxes and fees against local entities, and risk being unable to verify mineral take and other relevant data, given that mineral transfers are largely expected to occur offshore. *Id.* at 7, 21.

36. David Stauth, *Hydrothermal Vents, Methane Seeps Play Enormous Role in Marine Life*, *Global Climate*, OR. ST. U. (May 27, 2016), <http://oregonstate.edu/ua/ncs/archives/2016/>

have climate change impacts in national waters and terrestrial jurisdictions, further harming indigenous peoples, who tend to be disproportionately affected by climate change (particularly if they live on small islands).³⁷ And yet, the status of the ocean as the world's largest active carbon sink³⁸ and the specific role played by deep sea ecosystems in this regard has largely been omitted from DSM discussions.³⁹

In the Pacific, the exploratory (i.e., pre-mining) phase of DSM is already having adverse impacts on human communities. The world's first deep sea commercial mine site, developed by Canadian company Nautilus Minerals Inc., has encountered substantial opposition in Papua New Guinea, where villagers and indigenous coastal groups report significant adverse effects and anomalies potentially attributable to Nautilus's activity.⁴⁰ The first and most well-noted example has been a steep decrease in shark presence in the area, impacting the traditional fishing custom of "shark calling" carried out by indigenous islanders in the villages of Mesi, Tembin, and Kontu.⁴¹ In addition to being a source of

may/hydrothermal-vents-methane-seeps-play-enormous-role-marine-life-global-climate.

37. See, e.g., Indigenous Peoples and Climate Change, Native Title Report 2008, Chapter 5, Australian Human Rights Commission, https://www.humanrights.gov.au/sites/default/files/content/social_justice/nt_report/ntreport08/pdf/chap5.pdf, 136; see also Climate change and indigenous peoples, UN Permanent Forum on Indigenous Issues, Backgrounder, http://www.un.org/en/events/indigenousday/pdf/Backgrounder_ClimateChange_FINAL.pdf, and Indigenous Peoples in the Pacific Region, UN Permanent Forum on Indigenous Issues, Fact Sheet, http://www.un.org/en/events/indigenousday/pdf/factsheet_Pacific_FINAL.pdf.

38. DAN LAFFOLEY & GABRIEL GRIMSDITCH, EDS., INT'L UNION FOR CONSERVATION OF NATURE AND NAT. RES.S, THE MANAGEMENT OF NATURAL COASTAL CARBON SINKS 1 (Nov. 2009), https://cmsdata.iucn.org/downloads/carbon_managment_report_final_printed_version.pdf, 1. See also, Christopher Sabine et al., *The Oceanic Sink for Anthropogenic CO₂*, 305 SCIENCE 367, 370 (2004) ("[T]he ocean has constituted the only true net sink for anthropogenic CO₂ over the past 200 years. Without this oceanic uptake, atmospheric CO₂ would be about 55 ppm higher today than what is currently observed (380 ppm).").

39. There is scant mention of climate and the ocean's role as a carbon sink in any of the ISA's materials (a website search reveals only three cursory mentions of climate in other contexts, see, e.g., <https://www.isa.org.jm/search/node/climate>); rather, the ISA makes far-reaching claims that seabed mining will have reduced carbon emissions compared to land without taking into account emissions from onshore processing and potential methane release from destruction of deep sea ecosystems. See, e.g., *What are the benefits of mining the seabed compared to mining on land?*, INT'L SEABED AUTH., <https://www.isa.org.jm/faq/what-are-benefits-mining-seabed-compared-mining-land>.

40. Nautilus has been exploring PNG's waters since 1997 and has conducted exploratory drilling in the Bismarck Sea since 2006, drilling hundreds of holes to depths of eighteen meters or more, as well as collecting chimney samples. *Annual Information Form for the Fiscal Year Ended December 31, 2015, Nautilus Minerals Inc.* 41-43 (2016), <http://www.nautilusminerals.com/IRM/PDF/1735/AnnualInformationFormforfiscalyearendedDecember312015>. In January 2011, Nautilus was granted a twenty-year mining lease by the PNG government for the development of the Solwara 1 deposit. RESOURCE ROULETTE, *supra* note 8, at 28.

41. *New Ireland Locals Fear Nautilus Destroying Shark Calling*, DEEP SEA MINING CAMPAIGN (Oct. 18, 2012), <http://www.deepseaminingoutofourdepth.org/new-ireland-locals-fear->

tourism revenue, shark calling represents an important coming-of-age rite for young men in these societies, traditionally occurring as part of an annual festival.⁴² The affected communities allege that sharks and other large marine animals have been disturbed by underwater drilling, causing them to abandon their traditional habitat.⁴³ As a result, the practice of shark calling may soon disappear, representing a loss of traditional knowledge with potent psychological and cultural impacts.

In addition to effects on shark fisheries, villagers have reported dusty, cloudy waters in traditional dive spots, and schools of dead tuna and strange sea creatures hot to the touch washing up on shore since exploration began.⁴⁴ Other impacts include affected customary fishing routes, diminished ecotourism prospects, and disturbance of other cultural beliefs and practices.⁴⁵

Similarly, in Tonga, indigenous islanders have reported effects from exploratory DSM occurring even further out in their waters, including impacts on fisheries and cultural practices. The presence of large mining and exploration vessels has crowded traditional fishing sites, changing fish patterns and affecting local fishermen, who report having to make costly detours to find new fishing grounds.⁴⁶ Tongan fishermen are

nautilus-destroying-shark-calling; Jo Chandler, *Mining the Abyss*, DEEP SEA MINING CAMPAIGN (Dec. 6, 2014), <http://www.deepseaminingoutofourdepth.org/mining-the-abyss>; *Real Shark Tale Waiting to Vanish*, PNG MINE WATCH (Feb. 7, 2015), <https://ramumine.wordpress.com/2015/02/07/real-shark-tale-waiting-to-vanish/>; Juliet Eilperin, *Shark Callers: The Daring Spiritual Practice of Papua New Guinea*, HUFFINGTON POST (Aug. 26, 2012), http://www.huffingtonpost.com/2012/08/26/shark-callers-photos_n_1828134.html.

42. *Id.*; *New Ireland Province*, PAPUA N.G. TOURISM PROMOTION AUTHORITY, 2015, <http://www.papuanewguinea.travel/newireland>.

43. RESOURCE ROULETTE, *supra* note 8, at 33.

44. Jo Chandler, *Mining the Abyss*, THE GLOBAL MAIL (Dec. 6, 2013), <https://web.archive.org/web/20150318111209/http://www.theglobalmail.org/feature/mining-the-abyss/760/index.html>; Meghan Miner, *Will Deep-Sea Mining Yield an Underwater Gold Rush?*, NAT'L GEOGRAPHIC NEWS (Feb. 3, 2013), <https://news.nationalgeographic.com/news/2013/13/130201-underwater-mining-gold-precious-metals-oceans-environment/>; *Deep Sea Mining: The Pacific Experiment, Chain Reaction*, FRIENDS EARTH AUSTL. MAG. (Apr. 2013), <http://www.deepseaminingoutofourdepth.org/deep-sea-mining-the-pacific-experiment/>; Freddy Mou, *Dead Sea Creatures Causing Awful Smell in Namatanai*, LOOP PNG (Apr. 13, 2016), <http://www.looppng.com/content/dead-sea-creatures-causing-awful-smell-namatanai>.

45. The active development, in both New Ireland and East New Britain, of marine-based ecotourism, particularly around the hubs of Kokopo and Kavieng, could be threatened if degradation to the marine environment continues. See *Papua New Guinea Tourism Receives Some Attention*, BUSINESS ADVANTAGE PNG (Feb. 12, 2014), <http://www.businessadvantagepng.com/papua-new-guinea-tourism-receives-attention>. The indigenous people of Lavongai Island have expressed concern that they will be unable to pass into the afterlife to join their ancestors because the very body of water from which they are to “pass over,” per their cultural teachings, is part of an area for which Nautilus has received a prospecting permit from the PNG government. RESOURCE ROULETTE, *supra* note 8, at 33.

46. RESOURCE ROULETTE, *supra* note 8, at 21-22.

particularly concerned about deepwater fisheries, which include snapper who feed on organisms located around hydrothermal vents and swim at depths where mining is projected to take place.⁴⁷ The Head of Tonga's Fishermen's Association has stated that the effects from DSM on Tonga's growing fisheries—a substantial contributor to Tonga's economy—could be disastrous, especially if tailings or plumes are dispersed by strong deep water currents or storm systems and taken up by wildlife.⁴⁸

As in PNG, shark calling is a cultural practice in Tonga and could be similarly affected.⁴⁹ Tonga, like other PI nations, is also particularly susceptible to the effects of climate change.⁵⁰ Many civil society groups express trepidation as well as frustration for having failed to be consulted with respect to engaging in potentially destructive new extractive activities that could further destabilize fragile marine and island ecosystems.⁵¹

As mentioned, many of the impacts reported by indigenous islanders thus far relate only to the activities of exploratory mining, and do not anticipate the greater impacts that will occur when full-scale mining commences. Combined with the aforementioned body of scientific studies documenting serious, irreversible harms from seabed mining, the possibility of harms to indigenous peoples (and societies at large) as a result of DSM in the Area is undeniable and should not be ignored. The

47. Ross Shotton, *Deepwater Fisheries*, FOOD & AGRIC. ORG. U.N., <http://www.fao.org/docrep/009/y5852e/y5852e09.htm>; *Fishing in the Dark*, WORLD OCEAN REV. (2013), <http://worldoceanreview.com/en/wor-2/fisheries/deep-sea-fishing>. See also *Kingdom of Tonga Fisheries Data*, FOOD & AGRIC. ORG. U.N. (Apr. 2002), <http://www.fao.org/fi/oldsite/FCP/en/ton/profile.htm> (“Deep-water snappers . . . is [sic] a major export of the country. Fish are caught by a fleet of about 16 vessels which range in size from 28 to 40 feet. Two species of deep water snapper, the longtailed red snapper (*Etelis coruscans*) and the pink snapper (*Pristipomoides filamentosus*) are especially valuable and are exported to Hawaii and Japan.”); *Fishery and Aquaculture Country Profiles: The Kingdom of Tonga*, FOOD & AGRIC. ORG. U.N. (2016), <http://www.fao.org/fishery/facp/TON/en> (“In the deepwater bottom fishery, the major resources are numerous species of snappers, groupers, and other demersal fish.”); GOV'T OF TONGA, TONGA FISHERIES SECTOR PLAN 2016-2024, http://www.spc.int/coastfish/countries/Tonga/Deepwater_Snapper_Fishery_Management_Plan.pdf. RESOURCE ROULETTE, *supra* note 8, at 22 (“Deep sea fishing regularly drops lines at depths of 1000 meters and more, and other valuable fisheries occupying depths of 500 to 1200 meters could be directly impacted by exploratory drilling.”).

48. Interview with Head of Tonga Fishermen's Ass'n, in Nuku'Alofa, Tonga (Mar. 11, 2016).

49. Interview with Tonga Leitis Ass'n, in Nuku'Alofa, Tonga (Mar. 9, 2016).

50. Tonga is situated approximately at sea level. Tonga, GRAPHICMAPS, <https://www.graphicmaps.com/tonga> (last modified Feb. 6, 2018).

51. Interview with Tonga Leitis Ass'n, in Nuku'Alofa, Tonga (Mar. 9, 2016); Interview with Civil Society Forum of Tonga, in Nuku'Alofa, Tonga (Mar. 10, 2016); Interview with Tupou Tertiary Initiative (TTI), in Nuku'Alofa, Tonga (Mar. 8, 2016); Interview with Matangi Tonga Online, in Nuku'Alofa, Tonga (Mar. 11, 2016); Interview with National Forum of Church Leaders, in Nuku'Alofa, Tonga (Mar. 9, 2016).

following three sections explain the legal norms that are relevant in this context, arguing for why they should govern.

III. PART XI OF UNCLOS AND THE DSM REGULATORY REGIME

The 1982 United Nations Convention on the Law of the Sea (UNCLOS or Convention), often described as a “constitution for the oceans,”⁵² is the principal international legal instrument governing the use of the sea. Consisting of 17 Parts, 320 Articles, and 9 Annexes, the Convention establishes a comprehensive legal order for the oceans which aims to promote, among other objectives, peaceful use of the oceans; equitable and efficient utilization of ocean resources; conservation of ocean life; and the study, protection, and preservation of the marine environment.⁵³ The Convention prescribes the rights and duties of States Parties, particularly with respect to the various maritime zones it establishes,⁵⁴ and further designates the range of appropriate state behavior in a wide range of circumstances in those zones. With respect to DSM, the UNCLOS (1) designates seabed minerals as part of the “common heritage of mankind” and sets out the regulatory regime for exploitation of those resources; and (2) mandates that States Parties ensure the protection and preservation of the marine environment—an obligation implicated by DSM given the industry’s potential for environmental destruction (see Part II).

A. *Common Heritage of Mankind*

Part XI of the UNCLOS, together with the 1994 Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (1994 Agreement),⁵⁵ sets out the DSM regulatory regime applicable to the international seabed beyond areas of national

52. Sustainable Dev. Knowledge Platform, *United Nations Convention on the Law of the Sea (UNCLOS)*, U.N. DEP’T ECON. & SOC. AFF., <https://sustainabledevelopment.un.org/topics/oceans/unclos>.

53. See UNCLOS, *supra* note 8, at pmbl.

54. The “exclusive economic zone” is the waters extending to 200 nautical miles from a baseline constructed from points on the land territory of the state. The “continental shelf” comprises the seabed and subsoil of the submarine areas that extend beyond a coastal state’s territorial sea throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the territorial sea is measured where the outer edge of the continental margin does not extend up to that distance. The “high seas” are all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a state, or in the archipelagic waters of an archipelagic state. Finally, the “Area” is the seabed and ocean floor and subsoil beyond national jurisdiction, and is considered the common heritage of mankind. UNCLOS, *supra* note 8, arts. 1, 55, 57, 76, 86.

55. G.A. Res. 48/263, Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (July 28, 1994) [hereinafter 1994 Agreement].

jurisdiction, or “the Area.”⁵⁶ Part XI is the most developed international legal regime based upon the principle of the “common heritage of mankind.”⁵⁷ While this same principle can be found in other international instruments such as those establishing the outer space legal regime,⁵⁸ Part XI represents its most elaborate expression in international law.⁵⁹

Article 136 of the UNCLOS provides that the Area and all its mineral resources belong to the “common heritage of mankind.”⁶⁰ Under this principle, all rights in these resources are not the provenance of any state but rather vested in “mankind as a whole,”⁶¹ on whose behalf all activities in the Area (including prospecting for, exploring, and exploiting deep sea minerals) shall be carried out,⁶² and on whose behalf the ISA shall act.⁶³ Article 140 elaborates that:

Activities in the Area shall, as specifically provided for in this Part, be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States, whether coastal or landlocked, and taking into particular consideration the interests and needs of developing States and of peoples who have not attained full independence or other self-governing status recognized by the United Nations in accordance with General Assembly resolution 1514 (XV) and other relevant General Assembly resolutions.⁶⁴

Article 140 further calls for an equitable sharing of economic benefits

56. *Id.* at 8, 15; UNCLOS, *supra* note 8, Part XI.

57. See Scott J. Shackelford, *The Tragedy of the Common Heritage of Mankind*, 28 STAN. ENVTL. L.J. 109, 111 (2009) (“Although no universal definition exists, most conceptions of the [common heritage of mankind] share five primary points. First, there can be no private or public appropriation of the commons. Second, representatives from all nations must manage resources since a commons area is considered to belong to everyone. Third, all nations must actively share in the benefits acquired from exploitation of the common heritage region. Fourth, there can be no weaponry or military installations established in commons areas. Fifth, the commons should be preserved for the benefit of future generations.”) (internal citations omitted).

58. See, e.g., Agreement Governing the Activities of States on the Moon and Other Celestial Bodies art. 11(1), Dec. 5, 1979, 1363 U.N.T.S. 3 [hereinafter Moon Agreement]; Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies art. I, *opened for signature* Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205; Convention on International Liability for Damage Caused by Space Objects pmb., *opened for signature* Mar. 29, 1972, 24 U.S.T. 2389, 961 U.N.T.S. 187; Convention on Registration of Objects Launched into Outer Space pmb., *opened for signature* Jan. 14, 1975, 28 U.S.T. 695, 1023 U.N.T.S. 15.

59. See, e.g., Rudiger Wolfrum, *The Principle of the Common Heritage of Mankind*, MAX PLANCK INSTITUTE OF PUB. INT’L L. (1983), 312, 335.

60. UNCLOS, *supra* note 8, art. 136.

61. *Id.* pmb., art. 137(2).

62. *Id.* art. 140(1).

63. *Id.* art. 137(2).

64. *Id.* art. 140(1).

derived from the Area,⁶⁵ commands that the Area be used exclusively for peaceful purposes,⁶⁶ and provides for scientific research,⁶⁷ technology transfer from more-developed to less-developed states,⁶⁸ and the protection of both the marine environment⁶⁹ and human life.⁷⁰ Taken together, these UNCLOS provisions (1) establish the general contours of the common heritage of mankind principle; and (2) instruct that the intended beneficiary of DSM in the Area is humanity itself, and thus, that it is in humanity's interest that the ISA—as the body that oversees all “activities in the Area”⁷¹—must act.⁷²

65. *Id.* art. 140(2).

66. *Id.* art. 141.

67. *Id.* art. 143.

68. *Id.* art. 144.

69. *Id.* art. 145.

70. *Id.* art. 146.

71. “Activities in the Area” means all activities related to the prospecting and exploration for, and exploitation of, the mineral resources of the Area. UNCLOS, *supra* note 8, arts. 133-34, 314. “Prospecting” is the search for minerals in the deep seabed. “Exploration” is the search for minerals in the seabed with exclusive rights. “Exploitation” is the commercial recovery of minerals in the deep seabed. For its part, the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea further clarified that “activities in the Area” include: drilling, dredging, coring, and excavation; disposal, dumping, and discharge into the marine environment of sediment, wastes, or other effluents; and construction, operation, or maintenance of installations, pipelines, and other devices related to such activities. *See Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area*, Advisory Opinion No. 17, ¶ 87 (Feb. 1, 2011), https://www.itlos.org/fileadmin/itlos/documents/cases/case_no_17/adv_op_010211.pdf [hereinafter Seabed Mining Advisory Opinion].

72. *Id.* art. 137(1). Admittedly, there is some superficial appeal to the notion that there may exist at least a theoretical tension between the common heritage of mankind principle, which is cast in global language encompassing “mankind as a whole,” on the one hand, and the recognition of indigenous peoples as a specific subset of mankind with separate and discrete rights, on the other. However, a close reading of the UNCLOS as a whole reveals that no such tension exists, as the treaty itself recognizes that not all entities, states or otherwise, are similarly situated, and that considerations of equity may warrant their differential treatment. For instance, while it is true that Article 140 of Part XI instructs that “[a]ctivities in the Area” are to be carried out for the benefit of “mankind as whole,” the same article goes on to instruct states to “tak[e] into particular consideration the interests and needs of developing States and of peoples who have not attained full independence or other self-governing status recognized by the United Nations[.]” UNCLOS, *supra* note 8, art. 140(1). Further, the preamble provides that the Convention aims to “contribute to the realization of a just and equitable international economic order which takes into account the interests and needs of mankind as a whole *and, in particular, the special interests and needs of developing countries.*” *Id.* at pmb1, ¶ 5 (emphasis added). Just as it has been recognized that developing countries have limited capacity to engage in the exploration and exploitation of marine resources, that this limited capacity inhibits the achievement of the realization of a just and equitable international economic order, and that therefore special consideration of their interests and needs are appropriate, so the interests and needs of indigenous peoples likewise warrant special consideration. Given that the latter stand to be directly and disproportionately affected by DSM activities in the Area, and given further that, historically, they have suffered human rights abuses and other deleterious impacts at disproportionate levels as a result of extractive industries, equity likewise militates in favor of indigenous rights recognition. Moreover, there is arguably no doctrinal

The common heritage DSM regime was premised on the idea that the two principles dominating the law of the sea debate at the time of the UNCLOS's drafting—the principles of sovereignty and freedom⁷³—could not guarantee the fair or equitable governance of deep sea mineral exploitation. On the one hand, the principle of sovereignty privileged the interests of coastal states, promoting their seaward extension of national jurisdiction and the general appropriation of ocean space.⁷⁴ The principle of freedom, on the other hand, privileged the interests of the non-coastal states, promoting the non-appropriation of the oceans and the freedom of myriad uses of ocean space, including navigation, overflight, and the laying of submarine cables.⁷⁵ These competing principles would have produced two markedly different regimes. The former, sovereignty, which viewed the international seabed as the natural seaward extension of coastal states' continental shelves, would have divided the seafloor among coastal states to appropriate.⁷⁶ The latter, freedom, which viewed the deep seabed as subject to the varied freedoms of the high seas, would have opened the resources of the deep seabed for exploitation by any state (presumably technologically advanced, developed states).⁷⁷

In 1967, against this backdrop of incompatible ideologies, Maltese Ambassador to the United Nations Arvid Pardo famously proposed that the deep seabed beyond the limits of national jurisdiction, together with the resources therein, be designated as the common heritage of mankind.⁷⁸ Agreeing, the U.N. General Assembly adopted the Declaration of Principles Governing the Seabed and the Ocean Floor, and Subsoil Thereof, Beyond the Limits of National Jurisdiction in 1970 (1970 Declaration), which pronounced that “[t]he sea bed and ocean floor, and the subsoil thereof, beyond the limits of national jurisdiction (hereafter

obstacle to establishing additional mechanisms within the UNCLOS framework to safeguard indigenous interests similar to those provided in the Convention on Biological Diversity framework. *See generally* Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, Oct. 29, 2010, UNEP/CBD/COP/DEC/X/1 (referencing indigenous peoples and local communities and mandating benefits-sharing relative to the exploitation of genetic resources, including in transboundary situations); *See* Hunter et al., *supra* note 15, n.65 (“[I]n much the same way scholars have argued for heightened rights of coastal states with respect to the resources in Areas Beyond National Jurisdiction (ABNJ), indigenous peoples within coastal states should likewise be accorded heightened rights in ABNJ, as they represent the subset of mankind most directly connected to the physical world and consequently most vulnerable to environmental harm[.]”).

73. John Temple Swing, *Who Will Own the Oceans?*, 54 FOREIGN AFF. 527, 527 (1976).

74. *Id.* at 530.

75. *Id.*

76. *Id.* at 531.

77. *Id.* at 527.

78. *Id.* at 530.

referred to as the area), as well as the resources of the area, are the common heritage of mankind.”⁷⁹ The Declaration further proclaimed that “[t]he area shall not be subject to appropriation by any means by States or persons, natural or juridical, and no state shall claim or exercise sovereignty or sovereign rights over any part thereof.”⁸⁰ Finally, the 1970 Declaration clarified that all exploration and exploitation of the resources of the area and other related activities shall be governed by a to-be-established international regime.

While the substance of the 1970 Declaration was reproduced in Part XI of the UNCLOS, the 1994 Agreement that implemented and brought the UNCLOS into force curtailed the original sweep of the common heritage of mankind principle. In particular, the 1994 Agreement removed some of those items considered antithetical to free market capitalism such as mandated transfers of technology from developed to developing states.⁸¹ Nevertheless, the implementing agreement accomplished its purpose in gaining the support of recalcitrant developed states while also advancing the common heritage of mankind regime rolled out in the UNCLOS.

B. *The Protection of the Marine Environment and of Human Life*

Recognizing the deep sea mineral wealth beyond areas of national jurisdiction as the “common heritage of mankind,” and in furtherance of the ISA’s mandate to govern all deep sea mineral exploitation in the Area “on behalf of mankind as a whole,” Part XI of the UNCLOS places two affirmative duties on the ISA to protect the marine environment⁸² and human life.⁸³ These provisions suggest that the ISA—in its actions and omissions to date with respect to the granting of multiple licenses to public and private actors to prospect and explore huge swaths of the Area—may already be falling short of its obligations to protect both the marine and human environments.

First, Article 145 sets forth the command to protect the marine environment, instructing the ISA to ensure that the marine environment is not irremediably harmed or impacted by DSM activities in the Area. Article 145 provides:

79. Declaration of Principles Governing the Sea-Bed and the Ocean Floor, and Subsoil Thereof, Beyond the Limits of National Jurisdiction, G.A. Res. 2749 ¶ 1, U.N. Doc. A/8028 (1970), reprinted in 10 I.L.M. 220 (1971).

80. *Id.* ¶ 2.

81. In the event of any inconsistency between the 1982 UNCLOS and the 1994 Agreement, the latter prevails. 1994 Agreement, *supra* note 55, art. 2(1).

82. UNCLOS, *supra* note 8, art. 145.

83. *Id.* art. 146.

Necessary measures shall be taken in accordance with this Convention with respect to activities in the Area to ensure effective protection for the marine environment from harmful effects which may arise from such activities. To this end the Authority shall adopt appropriate rules, regulations and procedures for inter alia:

- (a) the prevention, reduction and control of pollution and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment, particular attention being paid to the need for protection from harmful effects of such activities as drilling, dredging, excavation, disposal of waste, construction and operation or maintenance of installations, pipelines and other devices related to such activities;
- (b) the protection and conservation of the natural resources of the Area and the prevention of damage to the flora and fauna of the marine environment.⁸⁴

It is thus incumbent on the ISA to take any and all measures, including but not limited to the adoption of rules and regulations, necessary to protect the marine environment from harmful effects arising from DSM activities in the Area. As will be explained in Part III, there is mounting evidence that the ISA is not adequately discharging its duties in this regard.

Next, Article 146 contains the command to protect human life, instructing the ISA to ensure that human beings, presumably as either individuals or groups, are not harmed by DSM activities in the Area. Article 146 provides:

With respect to activities in the Area, necessary measures shall be taken to ensure effective protection of human life. To this end the Authority shall adopt appropriate rules, regulations and procedures to supplement existing international law as embodied in relevant treaties.⁸⁵

This provision provides a clear textual basis for the argument (advanced by many groups in the Pacific) that the ISA, in its management of the DSM regime, has a responsibility to ensure that DSM activities in the region do not negatively affect coastal communities.⁸⁶ It also upends the

84. UNCLOS, *supra* note 8, art. 145.

85. *Id.* art. 146.

86. Although the drafters' original intent as to the scope of "human life" meant to embraced by Article 146 is relatively unclear, the travaux préparatoires from the Third United Nations Conference on the Law of the Sea, which involved 160 countries and spanned from 1973 to 1982, provide some evidence to support an expansive, as opposed to contractive, construction. For instance, in the fourth, sixth, eighth, and twenty-first meetings of the Third Main Committee

largely superficial interpretation of the UNCLOS (to which many DSM proponents hold fast) that because much DSM slated to take place worldwide will happen in those areas beyond national jurisdiction, the rights, interests, and well-being of human groups are simply not implicated.⁸⁷

Taken together, Articles 145 and 146 indicate that the view taken by many DSM proponents – and at times, it would seem, the ISA itself⁸⁸ –

(established by the Third Conference to draft articles regarding the protection and preservation of the marine environment), representatives from Finland, Cuba, Tanzania, Bolivia, Canada, and Yugoslavia, among others, spoke about the safety and protection of human beings and human life in terms more general than not, and often in light of the overarching purposes of the Convention. See, e.g., II Official Records of the Third United Nations Conference on the Law of the Sea, 2nd Sess., mtgs. ¶ 36, U.N. Doc. A/CONF.62/C.3/SR.4 (Dec. 10, 1982); see, e.g. also, II Official Records of the Third United Nations Conference on the Law of the Sea, 2nd Sess., mtgs. ¶ 67, U.N. Doc. A/CONF.62/C.3/SR.6 (Dec. 10, 1982); II Official Records of the Third United Nations Conference on the Law of the Sea, 2nd Sess., mtgs. ¶¶ 62-63, 71, U.N. Doc. A/CONF.62/C.3/SR.8 (Dec. 10, 1982); IV Official Records of the Third United Nations Conference on the Law of the Sea, 3rd Sess., mtgs. ¶ 5, U.N. Doc. A/CONF.62/C.3/SR.21 (Dec. 10, 1982); IV Official Records of the Third United Nations Conference on the Law of the Sea, 3rd Sess., mtgs. ¶ 71, U.N. Doc. A/CONF.62/C.1/SR.21 (Dec. 10, 1982). In any event, as some scholars have argued, the original intent of the drafters should arguably play a subsidiary role in multilateral treaty interpretation. See, e.g., Dinah Shelton & Alexandre Kiss, *Guide to International Environmental Law* (2007), 7 https://scholarship.law.gwu.edu/cgi/viewcontent.cgi?article=2047&context=faculty_publications.

87. Several quotes from current ISA Secretary-General, Michael Lodge, support this contention. In his first address as Secretary-General, Lodge stated that “[t]he chief priority for the Authority at this time is to deliver a Mining Code that will enable contractors to move from exploration to exploitation.” Conversely, Secretary-General Lodge failed to mention the protection of human life as an important goal in his address. International Seabed Authority, Twenty-seventh Meeting of States Parties to the United Nations Convention on the Law of the Sea, *Statement by H. E. Michael W. Lodge, Secretary-General, International Seabed Authority under agenda item 9: ‘Information reported by the Secretary-General of the International Seabed Authority*, U.N. Doc. SPLOS/27 (June 12, 2017). Later, commenting on an article by Janet Davison, *Murky Waters: Deep-Sea Miners Say They Offer a Clean, Ethical Way to Harvest Precious Metals for a Low-Carbon Future. Environmentalists Aren’t Convinced*, CBC NEWS (Aug. 5, 2018), <https://newsinteractives.cbc.ca/longform/deep-sea-mining-environment>, Lodge referred to the piece as a “nicely balanced summary” of DSM. Michael Lodge (@MWLodge), TWITTER (Aug. 5, 018, 2:20 AM), <https://twitter.com/mwllodge/status/1026035133953056768>. Lodge made this comment despite the lack of any mention in Davison’s piece of the negative impacts mining could have on indigenous peoples, cultural practices, or other human harms. He has referred to articles calling for more environmental or human protection as “lurid and attention-seeking headlines” and has admonished those who raise concerns regarding catastrophic environmental and human impacts of DSM to approach the topic in a more “mature” fashion. Arlo Hemphill, *At the Helm: An Interview with New ISA Secretary-General Michael W. Lodge*, DSM OBSERVER (July 19, 2017), <http://dsmobserver.com/2017/07/isa-secretary-general-michael-w-lodge>.

88. To date, the ISA has entered into fifteen-year contracts with twenty-nine contractors for exploration of the deep seabed in search of polymetallic nodules. *Deep Seabed Minerals Contractors*, *supra* note 5. Sixteen of these contracts are for exploration in the Clarion-Clipperton Fracture Zone alone. *Id.* The remaining contracts are for the Western Pacific Ocean, the Central Indian Ocean Basin, the South West Indian Ridge, the Central Indian Ridge, and the Mid-Atlantic Ridge. *Id.* Although the ISA’s regulations regarding applications for initial prospecting and exploration for polymetallic nodules in the Area pay lip service to human and marine protection, Int’l Seabed Auth., *Regulations on Prospecting and Exploration for Polymetallic Nodules in the*

has been not only myopic, but also plainly unsupported by the text of the treaty itself. In short, the ISA has been construing its mandate under the UNCLOS too narrowly.

Moreover, a harmonized reading of Part XI as a whole belies such a narrow reading. Instead, the Part suggests that the ISA is bound to comply with broader principles of international law in carrying out its mandate to protect the marine environment and human life under Articles 145 and 146. Indeed, Article 138 provides:

The general conduct of States in relation to the Area shall be in accordance with the provisions of this Part, the principles embodied in the Charter of the United Nations *and other rules of international law* in the interests of maintaining peace and security and promoting international cooperation and mutual understanding.⁸⁹

Article 138 thus provides the direct link between the DSM regulatory regime administered by the ISA and the larger body of international law to which it is a part and must adhere.⁹⁰ As the ISA is responsible for regulating the conduct of states in the Area, it is incumbent upon the ISA to progressively incorporate these “other rules of international law.”⁹¹ As will be explained at length in Parts II and III of this article, the ISA’s obligations encompasses the larger

Area, <https://www.isa.org.jm/files/documents/EN/Regs/PN-en.pdf>, there is no mention of such protections in the ISA’s regulations regarding extension of such activity beyond the initial fifteen-year period. Int’l Seabed Auth., *Decision of the Council of the International Seabed Authority Relating to the Procedures and Criteria for the Extension of an Approved Plan of Work for Exploration Pursuant to Section 1, Paragraph 9, of the Annex to the Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982* (July 13–24, 2015), https://www.isa.org.jm/sites/default/files/files/documents/isba-21c-19_6.pdf.

89. UNCLOS, *supra* note 8, art. 138 (emphasis added).

90. That the phrase “other rules of international law” in Article 138 should be given a broad construction is well supported. *See, e.g.*, VI U.N. CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY 117 (Myron H. Nordquist et al. eds., 1995) [hereinafter VIRGINIA COMMENTARY] (finding that the phrase “presumably refers to all the rules of international law . . . including customary international law and treaty law”). Moreover, jurisprudence from UNCLOS tribunals themselves supports a broad construction of the phrase “other rules of international law.” *See, e.g.*, *Guyana v. Suriname*, Case No. 2004-04, Award, Hague Ct. Rep. 405-06 (Perm. Ct. Arb. 2007) (finding that “other rules of international law” in Article 293(1) of the UNCLOS encompassed not only the specific prohibition on the threat of force but also “the United Nations Charter and general international law” as well as the “norms of customary international law”); *M/V “SAIGA” (No. 2) (Saint Vincent and the Grenadines v. Guinea)*, Judgment, ITLOS Reports 1999, p. 7, at para. 155 (interpreting the phrase “other rules of international law” in Article 293 as giving the tribunal competence to apply not only the UNCLOS but also norms of customary international law).

91. UNCLOS, *supra* note 8, art. 157 (establishing the ISA as the organization through which States Parties shall organize and control activities in the Area).

corpuses of international environmental law with respect to the marine environment, and international indigenous rights law with respect to human life. These two bodies of international law have direct bearing on DSM activities not only in the Area but around the world, imposing legal obligations on all parties involved, and in a manner more stringent than the way in which the ISA has proceeded to date with respect to licensing DSM activities in the Area. This point cannot be overstated, as Part XI was never intended to serve as a complete or comprehensive guide for the management or regulation of DSM; rather, it was understood at the time of the UNCLOS's drafting that the ISA would develop rules and regulations to "fill [the] gaps in the framework left by [UNCLOS]."92

Although developing rules and regulations to ensure that DSM activities in the Area do not harm the marine and human environments is one of the ISA's chief regulatory functions,⁹³ it appears the ISA has not been generally faithful to this mandate. For instance, many of the mineral-specific regulations issued to date have arguably qualified the duty to prevent harm to the marine environment enshrined in the UNCLOS. To take but one example, regulations adopted in 2000 that govern the harvesting of polymetallic nodules (a type of deep sea mineral deposit)—while paying lip service to the duty to protect the marine environment—also provide that DSM contractors shall take measures to prevent, reduce and control pollution and other hazards to the marine environment arising from its activities in the Area "as far

92. See James Harrison, MAKING THE LAW OF THE SEA: A STUDY IN THE DEVELOPMENT OF INTERNATIONAL LAW 166 (2011). See also, The Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982, 28 July 1994, Annex Section 1:3 (stating "the setting up and the functioning of the organs and subsidiary bodies of the Authority shall be based on an evolutionary approach").

93. While the ISA has yet to finalize regulations on the actual exploitation of mineral resources in the deep seabed, it issued Draft Regulations on Exploitation of Mineral Resources in the Area in June 2018. Int'l Seabed Auth., *Draft Regulations on Exploitation of Mineral Resources in the Area*, U.N. Doc. ISBA/24/LTC/WP.1 (Apr. 30, 2018). This draft is currently under review, with an anticipated release of final regulations in 2019. *Summaries of Stakeholder Submissions on the ISA Draft Exploitation Regulations: Second Report of the Code Project*, PEW CHARITABLE TR. (Mar. 1, 2018), <http://www.pewtrusts.org/en/research-and-analysis/white-papers/2018/03/summaries-of-stakeholder-submissions-on-the-isa-draft-exploitation-regulations>. Moreover, to date, the ISA has issued three sets of regulations governing DSM prospecting and exploration in the Area, each of which pertain to one of the three major resource types, i.e., seafloor massive sulfides, polymetallic nodules, and cobalt-rich crusts. Int'l Seabed Authority, *The Mining Code*, <https://www.isa.org.jm/mining-code/Regulations>. These regulations, together with a number of guidelines issued by the ISA, set forth both specific rules pertaining to one or more aspects of the Authority's mandate (e.g., protection of the marine environment) as well as model contractual terms for private actors engaged in DSM activities in conjunction with states. *Id.*

as reasonably possible using the best technology available[.]”⁹⁴ Although the UNCLOS contemplates some harm to the marine environment arising from human activity, the ISA’s language nevertheless signals a retreat from the terms of the treaty and its protective intent, as no such qualifying language appears in Article 145 of Part XI, or any of the other UNCLOS provisions concerning the duty to prevent harm to the marine environment. Further, the same regulations go on to confer upon the ISA’s Legal and Technical Commission the unfettered discretion to create a list of DSM exploration activities that may be considered as having no potential for causing harm to the marine environment.⁹⁵ According to one member of the Commission, this provision was intended to “free contractors from having to assess [the] impact” of more commonly used technologies.⁹⁶

Further still, a growing number of commentators both within and outside the ISA bemoan a lack of transparency surrounding the agency’s approval of DSM exploration contracts. Particularly problematic is the work of the Legal and Technical Commission (LTC), whose meetings and deliberations are confidential and whose position remains that certain environmental data disclosed to the Commission by DSM operators, including environmental impact assessments in some cases, are likewise confidential.⁹⁷ Most

94. Int’l Seabed Auth., *Decision of the Assembly of the International Seabed Authority relating to the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area*, Regulation 31(3), U.N. Doc. ISBA/16/A/12/Rev.1 (May 7, 2010) [hereinafter *Regulations on Polymetallic Sulphides*].

95. *Id.* Regulation 34(1).

96. Jean-Pierre Lenoble, *The Legal Framework for Deep-Seabed Polymetallic Nodule Exploration, Presentation to the International Seabed Authority*, in *STANDARDIZATION OF ENVIRONMENTAL DATA AND INFORMATION: DEVELOPMENT OF GUIDELINES 27, 34* (Int’l Seabed Authority ed., 2002).

97. Todd Woody, *Seabed Mining: The 30 People Who Could Decide the Fate of the Deep Ocean*, DEEP SEA CONSERVATION COAL (Sept. 6, 2017), <http://www.savethehighseas.org/2017/09/06/seabed-mining-30-people-decide-fate-deep-ocean>. To be sure, part of the problem with the regulations is that the sections dealing with issues of proprietary data and the confidentiality of information are worded very broadly. *See* *Regulations on Polymetallic Sulphides*, *supra* note 94, Regulation 35(1) (“Data and information submitted or transferred to the Authority or to any person participating in any activity or programme of the Authority pursuant to these Regulations or a contract issued under these Regulations, and designated by the contractor, in consultation with the Secretary-General, as being of a confidential nature, shall be considered confidential unless it is data and information which: (a) Is generally known or publicly available from other sources; (b) Has been previously made available by the owner to others without an obligation concerning its confidentiality; or (c) Is already in the possession of the Authority with no obligation concerning its confidentiality.”). This language allows for all types of data and information, including environmental data, to be smuggled under the confidentiality regime of Part VI. Moreover,

documents considered by the LTC are not even disclosed to the Council (the executive organ of the ISA), which ultimately issues the license; instead the Council is forced to rely on recommendations made by the LTC without having the benefit of reviewing the relevant documents.⁹⁸

More disconcerting is the ISA's anemic view of what constitutes the "common heritage of mankind." As documented elsewhere,⁹⁹ the deep sea environment and the benthic communities that thrive there make critical contributions to marine biodiversity and climate regulation.¹⁰⁰ However, the ISA appears to be operating under an exceedingly dated notion of "common heritage of mankind," which ignores these vital seabed functions and consists almost entirely of the speculated monetary value of deep sea mineral deposits.¹⁰¹ It is imperative that this understanding of common heritage be updated to reflect significant advances in relevant science and best practices respecting the protection of the marine environment.¹⁰²

Most problematic of all, however, is the ISA's failure to date to view its duty to administer the DSM regulatory regime in accordance with Part XI of the UNCLOS, which, by way of Article 138, must be done in a manner compliant with other rules of international law. As detailed below, this includes the duty to ensure that this new extractive industry does not violate the rights of indigenous peoples.

IV. FREE, PRIOR, AND INFORMED CONSENT FOR EXTRACTIVE ACTIVITY

Regulation 35 is particularly problematic in that it potentially vests the threshold determination of what types of information can be considered "confidential" in as few as two individuals, the relevant DSM contractor and the ISA Secretary-General himself. *Id.*

98. See, e.g., Briefing to the International Seabed Authority for the 24th Session 16-27 July 2018, Deep Sea Conservation Coalition, 5, <http://www.savethehighseas.org/wp-content/uploads/2018/07/DSCC-ISA-briefing-2018-FINAL.pdf>. See also Jeff Ardrone, Henry Ruhl, & Daniel Jones, *Incorporating transparency into the governance of deep-seabed mining in the Area beyond national jurisdiction*, 89 MARINE POLICY (2018), 58, 63.

99. See Hunter et al., *supra* note 15.

100. See generally *id.*

101. An example of this attitude is apparent in an article from the *U.N. Chronicle*, which describes the ISA's responsibility as "balanc[ing] the societal benefits of deep seabed mining, including access to essential minerals . . . against the need to protect the marine environment." Michael Lodge, *The International Seabed Authority and Deep Seabed Mining*, LIV U.N. CHRONICLE (2017), <https://unchronicle.un.org/article/international-seabed-authority-and-deep-seabed-mining>. Protecting the marine environment is portrayed as limiting on the benefits that can be exploited from the ocean, rather than a benefit in and of itself.

102. Sabine Christiansen, Harald Ginzky, Pradeep Singh, & Torsten Thiele, *The International Seabed – The Common Heritage of Mankind*, IASS Policy Brief (2018), http://publications.iass-potsdam.de/pubman/item/escidoc:3358890:3/component/escidoc:3383894/IASS_Policy_Brief_2018_2_en.pdf.

IMPACTING INDIGENOUS PEOPLES

As we have explained, under Part XI of UNCLOS, the ISA is obligated to comply with other rules of international law, including international indigenous rights law. Of particular import in the DSM context is the norm of free, prior, and informed consent (FPIC), which requires actors to solicit and obtain the consent of indigenous communities prior to undertaking projects that may impact their territories or resources. This Part delineates the modern contours of the norm of FPIC focusing on the duty established through international standards to obtain FPIC from indigenous peoples before undertaking extractive activity that could adversely impact the enjoyment of their rights.¹⁰³

FPIC is highly relevant in the DSM context. DSM is a new extractive industry expected to disproportionately affect indigenous Pacific Islanders due to its concentration in the Pacific Island (PI) region.¹⁰⁴

103. The relationship between extractive industries and indigenous peoples has been problematic, to say the least. Time and again extraction of natural resources has centered on indigenous peoples' lands and territories to their detriment. Historically, the limited protections afforded indigenous peoples by their national governments have resulted in grave human rights violations, including land grabbing, forced evictions, the destruction of indigenous land, livelihoods, and health, gender-based violence, and other atrocities extending to torture, ethnic cleansing, and crimes against humanity. See generally NATURAL RESOURCE EXTRACTION AND INDIGENOUS LIVELIHOODS: DEVELOPMENT CHALLENGES IN AN ERA OF GLOBALIZATION (Emma Gilberthorpe & Gavin Hilson eds., 2014); Liam Downey et al., *Natural Resource Extraction, Armed Violence, and Environmental Degradation*, 23 ORG. & ENV'T 417 (2010). See also S. James Anaya (Special Rapporteur on the Rights of Indigenous Peoples), *Extractive Industries and Indigenous Peoples: Report of the Special Rapporteur on the Rights of Indigenous Peoples*, U.N. Doc. A/HRC/24/41 (Jul. 1, 2014); Directorate-Gen. for External Policies of the Union, *Indigenous Peoples, Extractive Industries and Human Rights*, EUR. PARLIAMENT (Sept. 2014), [http://www.europarl.europa.eu/RegData/etudes/STUD/2014/534980/EXPO_STU\(2014\)534980_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2014/534980/EXPO_STU(2014)534980_EN.pdf); *Gold's Costly Dividend: Human Rights Impacts of Papua New Guinea's Porgera Gold Mine*, HUM. RTS. WATCH (Feb. 1, 2011), <https://www.hrw.org/report/2011/02/01/golds-costly-dividend/human-rights-impacts-papua-new-guineas-porgera-gold-mine>.

104. Although there is no official definition of "indigenous" within the U.N. system, the following are examples of recognized criteria that help determine indigeneity: self-identification as indigenous peoples at the individual level and acceptance by the community as such; historical continuity with pre-colonial or pre-settler societies; strong links to territories and surrounding natural resources; distinct social, economic, or political systems; and a distinct language, culture, and beliefs, among others. *Who Are Indigenous Peoples?* U.N. PERMANENT F. ON INDIGENOUS ISSUES, http://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf. See also *World Directory of Minorities and Indigenous Peoples*, MINORITY RTS. GROUP INT'L, <http://minorityrights.org/directory> (noting indigenous populations of 56.8% in Fiji, 96.2% in Kiribati, 58% in Nauru, 95% in Solomon Islands, and unspecified majorities in the Marshall Islands, Palau, Samoa, Tonga, Tuvalu, and Vanuatu). See also Kekuni Blaisdell, *The Indigenous Rights Movement in the Pacific*, IN MOTION MAG. (May 25, 1998), <http://www.inmotionmagazine.com/pacific.html>; *Indigenous Peoples in the Pacific Region*, U.N. PERMANENT F. ON INDIGENOUS ISSUES, http://www.un.org/en/events/indigenousday/pdf/factsheet_Pacific_FINAL.pdf. The modern understanding of "indigenous" may also include an element of non-dominance in that indigenous peoples are often those who, at present, "form non-dominant groups of society" (see UN Factsheet

However, thus far, DSM actors in the region—including private companies, the SPC-EU Project, foreign governments, and PI governments—have largely proceeded with DSM exploration licensing without even the most elementary community consultations.¹⁰⁵ Meanwhile, exploratory DSM has negatively affected indigenous communities in Papua New Guinea and Tonga through disturbances to fishing practices, cultural rites, and the local environment.¹⁰⁶ Pacific states were also some of the first to sponsor private companies for exploration licenses in the Area, a process that again occurred at the level of government officials and did not engage indigenous communities.¹⁰⁷ Moreover, there has been little to no recognition to date that DSM activities in the Area may cause serious damage to the marine environment, including critical biodiversity and climate functions,¹⁰⁸ damage which could likewise cause considerable harm to indigenous peoples as well as populations at large.

Beyond indigenous rights law, a slew of other international human rights and environmental law principles are implicated by DSM. To the extent that DSM will impact basic human rights, it automatically triggers a wide body of binding protections under established international human

above); thus, some may argue that certain Pacific islanders are not indigenous by virtue of constituting the majorities of their societies (however, minorities such as the Māori of New Zealand, the Kanak of New Caledonia, the Kānaka Maoli of Hawai'i, etc., would indubitably qualify). In part to account for this, the phrase “indigenous peoples and local communities” has entered into international law and policy usage to encompass other Pacific Islanders and their long-standing cultural, religious, economic, and social practices relating to the natural environment. Recent international law has expanded and applied the norm of FPIC to both indigenous peoples and local communities (see, e.g., the Nagoya Protocol, a supplementary agreement to the Convention on Biological Diversity, <https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf>). Moreover, both state and indigenous representatives working within the various fora of the United Nations decided long ago not to include a formal definition of “indigenous peoples” in any international legal instrument, including the UN Declaration on the Rights of Indigenous Peoples, due to the vast diversity among different groups of indigenous peoples, which would invariably render any such definition under-inclusive. See *Indigenous Peoples, Indigenous Voices Factsheet: Who Are Indigenous Peoples?*, United Nations Permanent Forum on Indigenous Issues (last accessed Nov. 20, 2018), http://www.un.org/esa/socdev/unpfii/documents/5session_factsheet1.pdf; See also Dep't on Econ. & Soc. Affairs, *The Concept of Indigenous Peoples: Background Paper Prepared by the Secretariat of the Permanent Forum on Indigenous Issues*, U.N. Doc. PFII/2004/WS.1/3, 2-3 (Jan. 2004); Comm'n on Human Rights, *Discrimination Against Indigenous Peoples: Report of the Working Group on Indigenous Populations on Its Fourteenth Session*, UN Doc. E/CN.4/Sub.2/1996/21 (Aug. 16, 1996). Given their near universal experience of colonization, their inclusion in UN Permanent Forum on Indigenous Issues activities, the importance lent in particular to the subjective criteria of self-identification and the self-identification of many Pacific Islanders as indigenous, state and non-state actors looking to engage in DSM in the Pacific region should start from the baseline legal assumption that many Pacific Islanders may be considered indigenous.

105. RESOURCE ROULETTE, *supra* note 8, at 19, 29, 38, 40.

106. See *id.* at 8-10.

107. See, e.g., *id.* at 22.

108. Hunter et al., *supra* note 15.

rights law. Protected rights which are likely to be implicated include the right to life, the right to health, the right to work, the right to a livelihood and an adequate standard of living, the right to be free from discrimination, the right to self-determination, the right to an effective remedy or redress, and the right to cultural life, among others.¹⁰⁹ Although we focus in this article specifically on indigenous populations and the norm of FPIC, there is no escaping the fact that the aforementioned human rights obligations are mandatory for states, and must be considered when contemplating DSM or enacting seabed mining regulatory frameworks.

Existing law and emerging jurisprudence create a strong presumption in favor of a duty to obtain FPIC from indigenous peoples potentially impacted by extractive industry, including DSM. Due to indigenous

109. These rights are fundamental and are expressly recognized in the International Bill of Rights, comprised of the Universal Declaration of Human Rights, G.A. Res. 217 (III)A (Dec. 10, 1948) [hereinafter UDHR], the International Covenant on Economic, Social and Cultural Rights, G.A. Res. 2200A (XXI) (Dec. 16, 1966) [hereinafter ICESCR], and the International Covenant on Civil and Political Rights, G.A. Res. 2200A (XXI) (Dec. 16, 1966) [hereinafter ICCPR] – as well as other widely ratified human rights treaties such as the International Convention on the Elimination of Racial Discrimination, G.A. Res. 2106 (XX), Annex (Dec. 21, 1965) [hereinafter ICERD], the Convention on the Elimination of All Forms of Discrimination against Women, G.A. Res. 34/180 (Dec. 18, 1979) [hereinafter CEDAW], and the Convention on the Rights of the Child, G.A. Res. 44/25, annex (Nov. 20, 1989) [hereinafter CRC] (providing specific protections for marginalized or vulnerable groups).

DSM could affect the right to life, food security, and health through severe environmental contamination, including of fisheries and other marine life consumed by humans, as well as fragile island ecosystems, *see* RESOURCE ROULETTE, *supra* note 8. Many Pacific Islanders are dependent on marine industries or subsistence living which could be impacted by DSM, affecting their ability to work and pursue a livelihood in oft-times limited economies or situations of scarcity. *Id.* at ii. As with many extractive industries, the negative effects of DSM will likely disproportionately fall on minorities, indigenous peoples, women, and children, implicating discrimination provisions and protections specifically provided for these groups. *See, e.g., Fact Sheet: Disaster and Gender Statistics*, INT’L UNION FOR CONSERVATION NATURE, http://cmsdata.iucn.org/downloads/disaster_and_gender_statistics.pdf (last accessed Aug. 8, 2018); Jill Lawler, *Children’s Vulnerability to Climate Change and Disaster Impacts in East Asia and the Pacific*, UNICEF (2011), http://www.unicef.org/environment/files/Climate_Change_Regional_Report_14_Nov_final.pdf.

The right to self-determination and by virtue thereof “to freely pursue [one’s] economic, social, and cultural development” is a jus cogens norm, recognized generally in the UN Charter, and explicitly in the ICCPR, art. 1.1, and the ICESCR, art 1.1. DSM could interfere with the free pursuit of economic, social, and cultural development of PI communities by destroying marine ecosystems and limiting the development of alternative industries such as ecotourism and sustainable fisheries, in addition to its impacts on social and cultural life (particularly of indigenous communities), and is further proceeding despite widespread opposition among Pacific civil society. Because DSM will occur at sea, both within national jurisdiction and the Area, it will be difficult to assert damages and claim remedies for harms that may occur. There are as yet no specific grievance mechanisms (or adequate anticipation of the need for such) set up to account for such harms, including transboundary pollution. Finally, cultural life has already been impacted by DSM; the dependence of Pacific Islanders on the ocean and its resources for much of their traditional cultural practice, Hunter et al., *supra* note 15, at n. 63, makes cultural impacts resulting from severe degradation to this environment inevitable. Property rights and the right to a clean environment, among others, may also be affected.

peoples' history of exploitation by extractive industries¹¹⁰ and their designation as particularly vulnerable members of society,¹¹¹ indigenous peoples are now recognized as being vested with rights to the effective protection of their traditional lands, territories and resources as well as their distinctive cultures, practices and traditions.¹¹² These rights are established norms under international mechanisms such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP),¹¹³ the International Labour Organization Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries (ILO Convention No. 169),¹¹⁴ and various treaty bodies and case law from institutions such as the Inter-American Court of Human Rights (IACHR),¹¹⁵ the United Nations Human Rights Committee,¹¹⁶ the Committee on Economic,

110. See *supra* note **Error! Bookmark not defined.**

111. See, e.g., UNDESA Div. Inclusive Soc. Dev. Indigenous Peoples, *Indigenous Peoples at the UN*, U.N. DEP'T ECON. & SOC. AFF., <https://www.un.org/development/desa/indigenouseoples/about-us.html> ("Indigenous peoples today, are arguably among the most disadvantaged and vulnerable groups of people in the world.").

112. See G.A. Res. 61/295, United Nations Declaration on the Rights of Indigenous Peoples, pmbl. paras. 6-7, arts. 8, 9, 11, 12, 26, 27, 34, 40 (Sept. 13, 2007) [hereinafter UNDRIP]. Territories home to indigenous peoples coincide with areas that hold about eighty percent of the planet's biodiversity. *Indigenous Peoples*, WORLD BANK, <http://www.worldbank.org/en/topic/indigenouseoples> (last updated Sep. 24, 2018). See also *Indigenous peoples' collective rights to lands, territories and natural resources*, INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT, https://www.ifad.org/documents/38714170/40272519/IPs_Land.pdf/ea85011b-7f67-4b02-9399-aaea99c414ba, 4 (last accessed Nov 18, 2018) ("indigenous peoples' natural resources management practices, selection species and agricultural techniques have contributed to shaping and protecting areas long identified as pristine wilderness").

113. *Id.*

114. Convention Concerning Indigenous and Tribal People in Independent Countries, June 27, 1989, 1650 U.N.T.S. 383 (entered into force Sept. 5, 1991) [hereinafter ITPIC].

115. The Inter-American Court of Human Rights is the regional court system of the Organization of American States. Recently relevant case law from this court is *Kaliña and Lokono Peoples v. Suriname*, Merits, Reparations and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 36, ¶ 2 (Nov. 25, 2015) (concluding that Suriname "violated the right to property" by failing to conduct "a consultation process aimed at obtaining [the Kaliña and Lokono peoples'] free, prior and informed consent in keeping with Inter-American standards"). For its part, the Inter-American Commission on Human Rights has also been particularly progressive in the area of FPIC law, requiring "special measures to ensure recognition of the particular and collective interest that indigenous people have in the occupation and use of their traditional lands and resources and their right not to be deprived of this interest except with fully informed consent . . ." *Mary and Carrie Dann v. United States*, Case 11.140, Inter-Am. Comm'n H.R., Report No. 75/02, OEA/Ser.L/V/II.117, doc. 1 rev. 1 ¶ 131 (2003). The Commission has explained that FPIC is generally applicable "to decisions by the State that will have an impact upon indigenous lands and their communities, such as the granting of concessions to exploit the natural resources of indigenous territories." *Maya Indigenous Community of the Toledo District v. Belize*, Case 12.053, Inter-Am. Comm'n H.R., Report No. 40/04, OEA/Ser.L/V/II.122 doc. 5 rev. 1 ¶ 142 (2004).

116. See, e.g., U.N. Hum. Rts. Comm. (HRC), *CCPR General Comment No. 23: Article 27 (Rights of Minorities)*, ¶ 3.2, U.N. Doc. CCPR/C/21/Rev.1/Add.5 (Aug. 8, 1994) [hereinafter *Rights of Minorities*]; Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies, Note by the Secretariat, U.N. Doc. HRI/GEN/1/Rev.1 at ¶ 7 (Jul. 29,

Social and Cultural Rights (CESCR),¹¹⁷ and the Committee on the Elimination of Racial Discrimination (CERD).¹¹⁸

As outlined below, the duty to obtain indigenous peoples' FPIC regarding development activities that impact their lands, communities, and culture is expressly recognized by these international instruments and bodies, reflecting the emergence of the FPIC norm as both an international standard to be adhered to by all states in their engagements with indigenous peoples and as a best practice which, when followed, has mitigated social conflict and environmental harms, and often led to better outcomes for extractive operations.¹¹⁹ As the body of indigenous rights

1994) (“Culture manifests itself in many forms, including a particular way of life associated with the use of land resources, especially in the case of indigenous peoples”).

117. See, e.g., U.N. Comm. on Econ., Soc. & Cultural Rights (CESCR), *General Comment No. 21: Right of Everyone to Take Part in Cultural Life (art. 15, para. 1a of the Covenant on Economic, Social and Cultural Rights)*, U.N. Doc. E/C.12/GC/21 (Dec. 21, 2009) [hereinafter CESCR General Comment No. 21].

118. See, e.g., U.N. Comm. on the Elimination of Racial Discrimination, *General Recommendation 23: Rights of Indigenous Peoples*, at 122, U.N. Doc. A/52/18, annex V (1997), reprinted in *Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies*, U.N. Doc. HRI/GEN/1/Rev.6 at 212 (2003) [hereinafter CERD Recommendation 23].

119. Such agreement often functions as a “social license to operate” and is increasingly being sought by mineral developers. Jason Prno & D. Scott Slocombe, *Exploring the Origins of ‘Social License to Operate’ in the Mining Sector: Perspectives from Governance and Sustainability Theories*, 37 *RESOURCES POL’Y* 346, 346 (2012); see also ABBI BUXTON & EMMA WILSON, *FPIC AND THE EXTRACTIVE INDUSTRIES: A GUIDE TO APPLYING THE SPIRIT OF FREE, PRIOR AND INFORMED CONSENT IN INDUSTRIAL PROJECTS 4* (2013), <http://pubs.iied.org/pdfs/16530IIED.pdf>. Impact Benefit Agreements (IBAs), contracts negotiated by affected indigenous communities and companies, have also contributed, particularly in the Canadian context, to improved outcomes in the resource sector (although they are not free from problems and do not necessarily meet the requirements of FPIC). See, e.g., Martin Papillon & Thierry Rodon, *Proponent-Indigenous Agreements and the Implementation of the Right to Free, Prior, and Informed Consent in Canada*, 62 *ENVTL. IMPACT ASSESSMENT REV.* 216, 217 (2017) (“A proponent-driven process for securing Indigenous consent has its advantages. It facilitates stable, substantial relationships between proponents and communities.”); see also MARTIN PAPILLON & THIERRY RODON, *ENVIRONMENTAL ASSESSMENT PROCESSES AND THE IMPLEMENTATION OF INDIGENOUS PEOPLES [SIC] FREE, PRIOR AND INFORMED CONSENT: REPORT TO THE EXPERT PANEL REVIEWING FEDERAL ENVIRONMENTAL ASSESSMENT PROCESSES 12* (2016), https://www.chairedveloppement.nord.ulaval.ca/sites/chairedveloppementnord.ulaval.ca/files/environmental_assessment_processes_and_the_implementation_of_indigenous_peoples_fpic.pdf (“Not all Indigenous peoples are systematically opposed to economic development on their lands. Numerous studies show that if the conditions are right (the project is based on sustainability principles, benefits are shared, impacts are minimized and a relationship based on trust and mutual respect is established), Indigenous peoples can be supportive of extractive projects or infrastructure developments.”) [hereinafter Papillon & Rodon Report]; INT’L FUND FOR AGRIC. DEV., *INDIGENOUS PEOPLES’ COLLECTIVE RIGHTS TO LANDS, TERRITORIES AND NATURAL RESOURCES: LESSONS FROM IFAD-SUPPORTED PROJECTS 4* (2018), https://www.ifad.org/documents/38714170/40272519/IPs_Land.pdf (noting that “lands governed under community-based tenure systems . . . often have well-established local institutions and practices that have historically helped to sustain fragile ecosystems, such as tropical forests, rangelands and large-scale rotational agricultural systems.”). With respect to DSM given

law continues to grow and solidify, the already well-defined FPIC norm will only become more explicit.

A. *United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)*

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), adopted in 2007 by an overwhelming majority of states,¹²⁰ represents the clearest contemporary elaboration of the requirement for FPIC in any existing international instrument.¹²¹ Multiple UNDRIP provisions call upon states to secure indigenous peoples' FPIC before initiating or approving projects with known or potentially deleterious impacts on traditional lands, territories, and resources. These include Articles 10, 11, 19, 28, and 29, which require states to obtain the FPIC of indigenous peoples in regard to the development, occupation, and use of their property and any measures that may affect their community.¹²² In addition, Article 32(2) specifically calls for FPIC in the context of resource development:

States shall consult and cooperate in good faith with the Indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of *any*

the expected disproportionate impacts on indigenous islanders of DSM carried out in the Area, any benefit-sharing scheme would need to contemplate a similarly proportionate distribution of benefits (and remedies, given the likely need to repair harm).

120. The UNDRIP was adopted by an affirmative majority of 144 countries. OFFICE OF THE U.N. HIGH COMMISSIONER FOR HUMAN RIGHTS, INDIGENOUS PEOPLES AND THE U.N. HUMAN RIGHTS SYSTEM: FACT SHEET NO. 9/REV.2 4 (2013), <https://www.ohchr.org/Documents/Publications/fs9Rev.2.pdf>.

121. The U.N. General Assembly passed a resolution on October 2, 2007, adopting the UNDRIP and “solemnly proclaim[ing]” it as a “standard of achievement to be pursued in a spirit of partnership and mutual respect.” G.A. Res. 61/295, preamble, (Oct. 2, 2007). *See also id.* art. 32(2) (“States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.”); *Kichwa Indigenous People of Sarayaku v. Ecuador*, Merits and Reparations, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 245, ¶ 232 (June 27, 2012) (concluding that Ecuador was “responsible for the violation of the right to communal property of the Sarayaku People recognized in Article 21 of the Convention”) [hereinafter *Kichwa People*]; *Saramaka People v. Suriname*, Preliminary Objections, Merits, Reparations, and Costs, Judgment, Inter-Am. Ct. H.R. (ser. C) No. 174, ¶ 131 (Nov. 28, 2007) (drawing on the UNDRIP in arriving at its conclusion regarding the right of indigenous peoples to FPIC) [hereinafter *Saramaka People*].

122. Other protected rights of indigenous peoples under the UNDRIP include the rights to life, *id.* art. 7; religion and customs, *id.* art. 12; tradition and history, *id.* art. 13; health, *id.* art. 24(2); traditional “lands, territories, waters and coastal seas and other resources,” *id.* arts. 25-26; redress and compensation for lands and resources taken or damaged without their FPIC, *id.* art. 28; and conservation and protection of the environment, *id.* art. 29.

*project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.*¹²³

This language clearly encompasses marine projects and would extend to DSM in the Area as an activity that could affect indigenous territories and resources. Under the plain language of UNDRIP, any project, particularly relating to mineral exploitation, that may impact indigenous “*territories and other resources*” cannot go forward without the FPIC of affected indigenous peoples. The phrase “territories” has been interpreted expansively, including not only the land directly cultivated or inhabited by indigenous peoples, but also “the broader territory, encompassing the total environments of the areas which [indigenous peoples] occupy or otherwise use,” including, but not limited to, “natural resources, rivers, lakes, and coasts.”¹²⁴ In essence, this articulation expands the scope of indigenous peoples’ rights to make autonomous decisions regarding development projects beyond the limits of their traditional lands. Article 25 of UNDRIP also extends indigenous rights into the marine realm, stating that “[i]ndigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied . . . waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard.”¹²⁵

123. *Id.* art. 32(2) (emphasis added).

124. BIRGITTE FEIRING, INT’L LAND COAL., INDIGENOUS PEOPLES’ RIGHTS TO LANDS, TERRITORIES, AND RESOURCES, 17 (2018), <http://www.landcoalition.org/sites/default/files/documents/resources/IndigenousPeoplesRightsLandTerritoriesResources.pdf>.

125. UNDRIP, *supra* note 112, art. 25. This provision is directly implicated by DSM. *See* discussion *supra* Part II. An argument can also be made, similar to the situation of the Inuit with respect to areas of the Arctic Ocean, that Pacific peoples’ “territories” (or at the least, “resources”) extend not only into the coastal sea, but throughout large swaths of the Pacific Ocean, where islanders practiced expert navigation and sustainable resource practices long before the codification of states’ exclusive economic zones. *See, e.g.*, Liesl Clark, *Polynesia’s Genius Navigators*, NOVA (Feb. 15, 2000), <http://www.pbs.org/wgbh/nova/ancient/polynesia-genius-navigators.html>; Doug Herman, *How the Voyage of the Kon-Tiki Misled the World About Navigating the Pacific*, SMITHSONIAN MAG. (Sept. 4, 2014), <http://www.smithsonianmag.com/smithsonian-institution/howvoyage-kon-tiki-misled-world-about-navigating-pacific180952>

478; John Pickford, *Polynesian Navigators Revive a Skill That Was Nearly Lost*, BBC NEWS (July 22, 2013), <http://www.bbc.com/news/magazine-23359495>; *Polynesian History and Origin*, PBS, <http://www.pbs.org/wayfinders/polynesian2.html>.

In the case of indigenous peoples of the Pacific, marine resources in particular were integral to life and culture, with customary fishing and voyaging routes extending far out into the high seas. *See* Epeli Hau’ofa, *The Ocean in Us*, 10 CONTEMP. PACIFIC 391, 405-07 (1998); Tēvita O Ka’ili, *Tauhi vā: Nurturing Tongan Sociospatial Ties in Maui and Beyond*, 17 CONTEMP. PACIFIC 83, 86 (2005). In many parts of the Pacific, local communities still retain customary control over their waters, often referred to as “indigenous sea tenure.” Shankar Aswani, *Customary Sea Tenure in Oceania as a*

There has been some debate over the application of the FPIC norm and the inclusion in UNDRIP Article 32(2) of both the terms “consult” and “consent”¹²⁶ The general emerging consensus, as expressed by former Special Rapporteur on Indigenous Rights James Anaya and in several landmark international law cases, is that with respect to extractive industries or large-scale development projects, the FPIC norm is unquestionably a state requirement, in part because of the high degree of adverse impact affected indigenous communities are likely to experience (and have experienced in the past) as a result of such projects.¹²⁷

Although DSM advocates have persisted in arguing that the industry will have minimal impacts,¹²⁸ this is a specious argument in two respects. First, the argument rests on a conspicuous lack of knowledge about the environment with which it is concerned (the deep sea and seabed); as even pre-eminent marine scientists admittedly do not fully understand the extent of DSM’s potential impacts,¹²⁹ proponents cannot conclude that those impacts will be minimal.¹³⁰ Second, the argument disregards documented, deleterious impacts on indigenous islanders resulting from the initial, exploratory phase of DSM. As former Special Rapporteur Anaya states, indigenous consent is presumptively a requirement for extractive operations that have “a direct bearing on areas of cultural significance, in particular sacred places, or on natural resources that

Case of Rights-Based Fishery Management: Does it Work?, 15 REVS. FISH BIOLOGY & FISHERIES 285, 290 (2005).

126. See, e.g., Mauro Barelli, *Free, Prior and Informed Consent in the Aftermath of the UN Declaration on the Rights of Indigenous Peoples: Developments and Challenges Ahead*, 16 INT’L J. HUM. RTS. 1, 19-20 (2012) (discussing the evolution of Article 32 from constituting an indigenous veto over development projects to asking states to “‘seek’ the consent of indigenous peoples”); Karen Engle, *On Fragile Architecture: The UN Declaration on the Rights of Indigenous Peoples in the Context of Human Rights*, 22 EUR. J. INT’L L. 141, 157 (2011) (discussing indigenous peoples’ preference for FPIC over consultation).

127. James Anaya (Special Rapporteur on Indigenous Rights), *Report of the Special Rapporteur on the Rights of Indigenous Peoples*, U.N. Doc. A/HRC/21/47 ¶¶ 64-65 (July 6, 2012). Not all indigenous scholars agree with this interpretation, arguing instead that FPIC is an either/or proposition in which indigenous peoples possess an effective veto on activities taking place on their traditional lands or affecting the same. Papillon & Rodon Report, *supra* note 119, at 9.

128. RESOURCE ROULETTE, *supra* note **Error! Bookmark not defined.**, at 15.

129. Cindy Van Dover, director of the Marine Lab at Duke University and participant in the first manned biological exploration of hydrothermal vents, is among those scientists who state that “[w]e don’t yet know what we need to know” with respect to the impacts of mining on any deep-sea life. Miner, *supra* note **Error! Bookmark not defined.**

130. *Id.*

are traditionally used by indigenous peoples in ways that are important to their survival.”¹³¹ Given its documented impacts, DSM falls well within the bounds of this interpretation of the FPIC norm.

B. *International Treaties & Treaty Bodies*

Myriad treaties likewise reinforce the FPIC norm and suggest its applicability in the DSM context. First, the Committee on the Elimination of Racial Discrimination has repeatedly affirmed the FPIC norm. The CERD’s 1997 General Recommendation No. 23 on indigenous peoples recognizes that the legally-binding International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) applies to indigenous peoples¹³² and that states are bound accordingly.¹³³ In addition to calling on states to recognize and protect indigenous peoples’ culture, lands, and economic and social development, Recommendation No. 23 represents one of the earlier influential articulations of FPIC. It reaffirms the equal rights of indigenous peoples to effective participation in public life, requiring that “no decisions directly relating to [indigenous peoples’] rights and interests [be] taken without their informed consent.”¹³⁴ Paragraph 5 further

calls upon States parties to recognize and protect the rights of indigenous peoples to own, develop, control and use their communal lands, territories and resources and, where they have been deprived of their lands and territories traditionally owned or otherwise inhabited or *used without their free and informed consent*, to take steps to return those lands and territories.¹³⁵

According to the UN Office of the High Commissioner for Human Rights (OHCHR), CERD has highlighted “the obligation of States to ensure that the right of indigenous peoples to free, prior and informed consent is respected in the planning and implementation of projects affecting the use of their lands and resources.”¹³⁶

131. Anaya, *supra* note 127, ¶ 65.

132. CERD Recommendation 23, *supra* note 118, ¶ 2.

133. The application of the ICERD to indigenous peoples represents a binding obligation on states that have signed and ratified the treaty, which includes many PI states.

134. CERD Recommendation 23, *supra* note 118, ¶ 4(d).

135. CERD Recommendation 23, *supra* note 118, ¶ 5 (emphasis added). The right to restitution preferences the return of land and territories. Only in cases where such a return would be impossible does paragraph 5 allow other forms of “just, fair and prompt compensation.” *Id.*

136. Office of the United Nations High Comm’r for Human Rights, Rule of Law, Equality and Non-Discrimination Branch, *Free, Prior and Informed Consent of Indigenous Peoples* (Sept. 2013), <https://www.ohchr.org/Documents/Issues/ipeoples/freepriorandinformedconsent.pdf>.

A wealth of concluding observations, letters, and communications issued by the CERD further delineate the state requirement to obtain FPIC. For example, CERD's concluding observations on Ecuador in 2003 note that:

[a]s to the exploitation of the subsoil resources of the traditional lands of indigenous communities . . . merely consulting these communities prior to exploiting the resources falls short of meeting the requirements set out in the Committee's general recommendation XXIII on the rights of indigenous peoples. The Committee therefore recommends that the prior informed consent of these communities be sought . . .¹³⁷

Other concluding observations have reiterated the right of indigenous peoples to be consulted and to reach agreement “*before* concessions are granted” in the area of natural resource exploitation, particularly given the “deleterious effects” of such exploitation on the environment, health, and culture of indigenous peoples.¹³⁸ The CERD has requested information from States Parties and sent early warning urgent action letters in cases where the free, prior, and informed consent of local indigenous peoples with respect to extractive activities was not sought.¹³⁹

Other treaty-making bodies have also interpreted and expanded on the norm of FPIC. For example, the Committee on Economic, Social, and Cultural Rights (CESCR), in its 2009 General Comment No. 21, recognized that international instruments have affirmed “the rights of indigenous peoples to their cultural institutions, ancestral lands, natural

137. U.N. Committee on the Elimination of Racial Discrimination (CERD), *Consideration of Reports Submitted by States Parties Under Article 9 of the Convention: Concluding Observations of the Committee on the Elimination of Racial Discrimination, Ecuador*, ¶ 16, U.N. Doc. CERD/C/62/CO/2 (June 2, 2003), https://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=CERD%2F62%2FCO%2F2&Lang=en.

138. CERD, *Consideration of Reports Submitted by States Parties Under Article 9 of the Convention: Concluding Observations of the Committee on the Elimination of Racial Discrimination, Suriname*, ¶¶ 13-15, U.N. Doc. CERD/C/64/CO/9 (Apr. 28, 2004) (emphasis added), https://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=CERD%2F64%2FCO%2F9&Lang=en.

139. See, e.g., Chairperson of CERD, Letter dated Mar. 12, 2010 to Gopinathan Achamkulangare, Permanent Representative of the Permanent Mission of India to the U.N. (Mar. 12, 2010), https://www.ohchr.org/Documents/HRBodies/CERD/EarlyWarning/India_12.03.2010.pdf (requesting information on measures taken “in order to seek and clearly and fully obtain [the Dongria Kondh peoples’] prior, free and informed consent” to mining activities polluting their environment); Chairperson of CERD, Letter dated Aug. 24, 2007 to S.E.M. Enrique A. Manalo, Permanent Representative of the Permanent Mission of the Philippines to the U.N. (Aug. 24, 2007), https://www.ohchr.org/Documents/HRBodies/CERD/EarlyWarning/philippines_letter.pdf (regarding the failure to obtain FPIC for extractive activities affecting indigenous peoples’ sacred sites).

resources and traditional knowledge”¹⁴⁰ The Comment establishes that “[i]ndigenous peoples’ cultural values and rights associated with . . . nature should be regarded with respect and protected, in order to prevent the degradation of their particular way of life, including their means of subsistence, the loss of their natural resources and, ultimately, their cultural identity.”¹⁴¹ It also urges States Parties to “take measures to recognize and protect the rights of indigenous peoples to own, develop, control and use their communal lands, territories and resources, and, where they have been otherwise inhabited or used without their free and informed consent, take steps to return these lands and territories.”¹⁴² The recommendation calls explicitly for States parties “to respect the principle of free, prior and informed consent of indigenous peoples in all matters covered by their specific rights.”¹⁴³ The Committee also requires “States to take measures to prevent third parties from interfering” in the exercise of cultural rights, with specific obligations to “[r]espect and protect the cultural productions of indigenous peoples . . . [including] protection from illegal or unjust exploitation of their lands, territories and resources by State entities or private or transnational enterprises and corporations.”¹⁴⁴ Finally, the Committee interprets the International Covenant on Economic, Social and Cultural Rights (ICESCR) as entailing an obligation

[t]o allow and encourage the participation of . . . indigenous peoples . . . in the design and implementation of laws and policies that affect them. In particular, States parties should obtain their free and informed prior consent when the preservation of their cultural resources, especially those associated with their way of life and cultural expression, are at risk.¹⁴⁵

One of the founding human rights instruments, the ICESCR is a widely ratified treaty with 169 States Parties.¹⁴⁶ The CESCR’s Comments help establish the normative content of the Covenant and give concrete meaning to state obligations with respect to protecting its enumerated

140. CESCR General Comment No. 21, *supra* note 117, ¶ 3. CESCR is the body tasked with oversight of the International Covenant on Economic, Social and Cultural Rights.

141. *Id.* ¶ 36.

142. *Id.*

143. *Id.* ¶ 37.

144. *Id.* ¶ 50.

145. *Id.* ¶ 55(e).

146. *Status of Ratification Interactive Dashboard: International Covenant on Economic, Social and Cultural Rights*, OFFICE OF THE U.N. HIGH COMM’R FOR HUMAN RIGHTS, <http://indicators.ohchr.org> (last visited Nov. 9, 2018).

rights.¹⁴⁷ This detailed interpretation of the Covenant by the Committee constitutes a convincing and definitive interpretation of state obligations (including with respect to third parties) to obtain FPIC in situations in which indigenous cultural practices and ways of life, including through resource exploitation, are at risk.

Giving force to its own comments and further interpreting the ICESCR, the CESCR in its 2010 Concluding Observations on Colombia recommended the adoption of legislation that “clearly establishes the right to free, prior and informed consent,” with respect to “infrastructure, development and mining megaprojects” affecting indigenous and Afro-Colombian communities.¹⁴⁸

In affirming the right to FPIC, both the CERD and the CESCR draw on legal principles established by the 1989 International Labour Organization Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries (ILO Convention No. 169). In addition to mandating special measures to safeguard indigenous peoples, and particularly indigenous peoples’ cultures, rights, and environment,¹⁴⁹ ILO Convention No. 169 requires the participation of indigenous peoples “in the formulation, implementation and evaluation of plans and programmes for national and regional development which may affect them directly.”¹⁵⁰ The ILO Convention explicitly requires governments to consult with indigenous peoples “before undertaking or permitting any programmes for the exploration or exploitation of such resources pertaining to their lands.”¹⁵¹ The Convention specifically defines lands to “include the concept of territories, which covers *the total environment of the areas which the peoples concerned occupy or otherwise use.*”¹⁵² Article 15 further provides for the special safeguarding of indigenous natural

147. See, e.g., Kerstin Mechlem, *Treaty Bodies and the Interpretation of Human Rights*, 42 VAND. J. TRANSNAT’L L. 905, 908 (2009) (stating that “committees interpret the treaties they supervise . . . [and] thereby play an important role in establishing the normative content of human rights and in giving concrete meaning to individual rights and state obligations.”).

148. CESCR, *Consideration of Reports Submitted by States Parties Under Articles 16 and 17 of the Covenant: Concluding Observations of the Committee on Economic, Social and Cultural Rights, Colombia*, ¶ 9, U.N. Doc. E/C.12/COL/CO/5 (June 7 2010); see also CESCR, *Concluding Observations on the Sixth Periodic Report of Colombia*, ¶ 17, U.N. Doc. E/C.12/COL/CO/6, (Oct. 19, 2017) (“[The Committee] remains concerned at reports of inadequate implementation of the process of prior consultation with a view to obtaining free, prior and informed consent, particularly in relation to natural resource development and exploitation projects likely to affect their territories.”).

149. ITPIC, *supra* note 114, arts. 2, 4.

150. *Id.* art. 7.1.

151. *Id.* art. 15.2.

152. *Id.* art. 13.2 (emphasis added). This usage definition would apply to marine environments in the case of indigenous Pacific Islanders.

resources and “the right of [indigenous] peoples to participate in the use, management and conservation of these resources.”¹⁵³ Consultation under the Convention must be carried out in good faith, through participation “at all levels of decision-making.”¹⁵⁴ Although not as widely ratified as the ICESCR or the CERD, the ILO Convention remains in force,¹⁵⁵ and has been ratified by multiple states contemplating DSM activities.¹⁵⁶

The UN Human Rights Committee (HRC), the treaty monitoring body for the International Covenant on Civil and Political Rights (ICCPR), has also issued various decisions recognizing the right to FPIC in cases of resource exploitation. Of particular relevance, in 2009, the HRC adopted a decision affirming FPIC in assessing an alleged violation by Peru, which concerned the impacts of various development projects diverting water away from indigenous peoples’ lands.¹⁵⁷ The case holds important parallels to Pacific Islanders affected by DSM in that the suspect activity did not occur directly on indigenous land, but rather impacted “a particular way of life” associated with the use of traditional indigenous resources—in this case, water for alpaca- and llama-raising and other traditional and subsistence uses.¹⁵⁸ In addition to recognizing positive legal measures to protect “traditional activities [such] as fishing or hunting,”¹⁵⁹ the Committee affirmed that the requisite level of indigenous peoples’ participation in the decision-making processes, in order to be effective, required not mere consultation but rather “the free, prior and informed consent of the members of the community.”¹⁶⁰ Numerous other

153. *Id.* art. 15.1.

154. *Id.* art. 6. The consultation requirement can be considered emerging customary international law. See Catherine J. Iorns Magallanes, *International Law Association Interim Report on a Commentary on the Declaration of the Rights of Indigenous Peoples*, 2 VICTORIA U. WELLINGTON LEGAL RES. PAPERS 13 (2012), <http://ssrn.com/abstract=2175897>; see also Tara Ward, *The Right to Free, Prior, and Informed Consent: Indigenous Peoples’ Participation Rights Within International Law*, 10 NW. J. INT’L HUM. RTS. 54, 54-55 (2011) (“[T]here is a clear consensus within international human rights jurisprudence that at a minimum States must engage in good faith consultations with indigenous peoples prior to the exploration or exploitation of resources within their lands or actions that would impact their traditionally used resources.”).

155. See ITPIC, *supra* note 114.

156. See *Ratifications of C169 - Indigenous and Tribal Peoples Convention, 1989 (No. 169)*, ILO, https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11300:0::NO:11300:P11300_INS TRUMENT_ID:312314:NO. Fiji, Mexico, and Brazil have all ratified ILO Convention No. 169; Fiji and Mexico have both contemplated seabed mining in their national waters, see RESOURCE ROULETTE, *supra* note 8, at 6, 39-40, and Brazil is a state sponsor of exploration in the Area, see *Deep Seabed Mineral Contractors*, *supra* note 5.

157. HRC, *Views on Communication No. 1457/2006*, U.N. Doc. CCPR/C/95/D/1457/2006 (Apr. 24, 2009).

158. *Id.* ¶ 7.2.

159. *Id.*

160. *Id.* ¶ 7.6.

concluding observations by the HRC likewise support the right to FPIC for indigenous peoples.¹⁶¹ Like those of the CESCR, HRC decisions are highly influential, serve as authoritative sources interpreting the ICCPR, and have been recognized by domestic courts as constituting binding precedent.¹⁶²

In the environmental realm, the Convention on Biological Diversity (1992), a widely ratified treaty with 188 States Parties, implicitly affirms the principle of FPIC. Article 8(j) of the treaty recognizes that each contracting party shall promote the wider application of the knowledge, innovations, and practices of indigenous and local communities “with the *approval* and involvement of the holders of such knowledge, innovations and practices.”¹⁶³ The word “approval” has been interpreted and explicitly affirmed in a 2016 Decision by the Conference of the Parties to the Convention as having the same meaning as free, prior, and informed consent.¹⁶⁴

C. Case Law & Jurisprudence

Case law from regional human rights courts, particularly the Inter-American Court of Human Rights (IACHR) and, more recently, the African Court of Human and Peoples’ Rights (AfCHPR), have further affirmed the legal obligation to obtain the FPIC of indigenous peoples in relation to development projects affecting their traditional lands, territories, and resources.

In the seminal case of *Saramaka People v. Suriname*,¹⁶⁵ the IACHR found that Suriname had breached its legal duty toward the Saramaka People when it granted concessions for the extraction of natural resources

161. See, e.g., HRC, *Consideration of Reports Submitted by States Parties Under Article 40 of the Covenant, Concluding Observations of the Human Rights Committee, Togo*, ¶ 21, U.N. Doc. CCPR/C/TGO/CO/4 (Apr. 18, 2011); HRC, *Consideration of Reports Submitted by States Parties Under Article 40 of the Covenant, Concluding Observations of the Human Rights Committee, Colombia*, ¶ 25, U.N. Doc. CCPR/C/COL/CO/6 (Aug. 4, 2010); HRC, *Consideration of Reports Submitted by States Parties Under Articles 40 of the Covenant, Concluding Observations of the Human Rights Committee, Panama*, ¶ 21, U.N. Doc. CCPR/C/PAN/CO/3 (Apr. 17, 2008) (expressing the Committee’s concern regarding “the absence of a process of consultation to seek the prior, free and informed consent of [indigenous] communities to the exploitation of natural resources in their territories”); U.N. Human Rights Committee, *Consideration of Reports Submitted by States Parties Under Articles 40 of the Covenant, Concluding Observations of the Human Rights Committee, Canada*, ¶ 22 U.N. Doc. CCPR/C/CAN/CO/5 (Apr. 20, 2006).

162. See, e.g., S.T.S., July 17, 2018 (J.T.S., No 1002/2017) (Spain).

163. Convention on Biological Diversity at 8j, 1760 U.N.T.S. 79; 31 I.L.M. 818 (1992) (emphasis added).

164. Convention on Biological Diversity, Decision Adopted by the Conference of the Parties to the Convention on Biological Diversity 6, U.N. Doc. CBD/COP/DEC/XIII/18 (Dec. 17, 2016).

165. *Saramaka People*, *supra* note 121.

in their traditional territories without actively consulting them, in good faith, with the objective of reaching an agreement.¹⁶⁶ The Court elaborated upon the FPIC duty, providing instruction as to the appropriate subjects of consultation, the timing of consultations, and the manner in which they should be carried out.¹⁶⁷ The Court went on to explain that the duty of consultation is heightened where the proposed development is large-scale or has the potential to threaten the physical or cultural survival of the indigenous peoples concerned; in such cases, the duty to obtain indigenous FPIC is paramount. The Court clarified that “survival” should be understood as the ability of indigenous people to “preserve, protect and guarantee the special relationship that [they] have with their territory”¹⁶⁸ so that “they may continue living their traditional way of life, and that their distinct cultural identity, social structure, economic system, customs, beliefs and traditions are respected, guaranteed and protected.”¹⁶⁹

Subsequently, in *Kichwa Indigenous People of Sarayaku v. Ecuador*,¹⁷⁰ the IACHR found Ecuador liable for breaching the Sarayaku peoples’ right to FPIC by signing concessions with third parties for the exploration of hydrocarbons and crude oil in and around Sarayaku traditional territories.¹⁷¹ Citing Ecuador’s responsibilities under ILO Convention No. 169, the Court affirmed that consent should be the “aim” of consultations carried out with indigenous peoples in good faith.¹⁷² As in *Saramaka People v. Suriname*, the Court went to great length to detail the extensive participatory rights of indigenous peoples in the context of these consultations, ordering the State to discuss with and involve the Sarayaku in any future projects or activities that could affect Sarayaku territory.¹⁷³

In the more recently established African system, the AfCHPR issued a significant decision in 2017 expounding upon the right of FPIC in the context of an indigenous hunter-gatherer community, the Ogiek people, forcefully removed from their ancestral lands in the Mau forest of

166. *See id.* paras. 133-37, 158. As the Court recognized, “the aim and purpose of the special measures required on behalf of the members of indigenous and tribal communities is to guarantee that they may continue living their traditional way of life, and that their distinct cultural identity, social structure, economic system, customs, beliefs and traditions are respected, guaranteed, and protected by the states.” *Id.* para. 121.

167. *Id.* paras. 133-137.

168. *Id.* para. 129.

169. *Id.* para. 121.

170. *Kichwa People*, *supra* note 121.

171. *Id.* paras. 177-227, 232.

172. *Id.* paras. 185-186.

173. *Id.* paras. 299-300.

Kenya.¹⁷⁴ In a case of first impression, the Court ruled on the right of the Ogiek people to FPIC. Drawing on Article 26 of the UNDRIP, the AfCHPR found Kenya had breached its obligations to the Ogiek people, ordering the State to take formal measures to recognize and ensure the right of the Ogiek people to FPIC regarding development of their traditional territories within the Mau Forest.¹⁷⁵ The AfCHPR, like the IACHR, recognized that FPIC is grounded in fundamental rights. In its holding the court explained that by failing to obtain FPIC, the Kenyan government had violated the African Charter in several respects, including infringing the Ogiek people's rights to property,¹⁷⁶ development,¹⁷⁷ and permanent sovereignty over their natural resources.¹⁷⁸

D. Other Influential Support

Additional influential support for the FPIC principle can be found in the United Nations Development Group's Guidelines on Indigenous Peoples' Issues, which arguably represent the model approach to development that respects the rights of indigenous peoples.¹⁷⁹ Based on the UNDRIP, the ILO Convention No. 169, the Convention on Biological Diversity, and other relevant international instruments, the UNDG Guidelines affirm that indigenous peoples have the right to define and decide their own development priorities.¹⁸⁰ The UNDG Guidelines also specifically provide that indigenous peoples possess the right to FPIC and the right to benefit-sharing arrangements even for the exploitation of state-owned sub-surface resources.¹⁸¹ Additionally, any government-issued permits for extraction—or even prospecting—of natural resources should not be granted if the FPIC of indigenous peoples concerned has not been obtained or if the proposed development hinders their ability to continue to use or benefit from these areas.¹⁸²

Other elaborations of FPIC-related requirements can be found in the

174. African Commission on Human and Peoples' Rights v. Republic of Kenya, Application No. 006/2012, Judgment, African Court on Human and Peoples' Rights [Afr. Ct. H.P.R.] (May 26, 2017).

175. *Id.* paras. 131, 227.

176. *Id.* paras. 122-131.

177. *Id.* paras. 210-211.

178. *Id.* paras. 197-201.

179. U.N. Dev. Grp., Guidelines on Indigenous Peoples' Issues, U.N. Doc. HR/P/PT/16 (2009), https://undg.org/wp-content/uploads/2016/10/UNDG_guidelines_EN.pdf [hereinafter UNDG Guidelines].

180. *Id.* at 15-16.

181. *Id.* at 18.

182. *Id.* at 19.

regulatory regimes of international institutions such as the World Bank Group, whose 2004 review of extractive industries included recommendations to incorporate FPIC-related items in their performance standards.¹⁸³ Such sources register the growing realization among non-state actors of the need to pay due regard to indigenous peoples' right to FPIC. In 2016, the World Bank approved a new draft Environmental and Social Framework, continuing the modernization of its policies aimed at preventing Bank-funded development projects from harming the physical or human environment.¹⁸⁴ The Framework's Standard No. 7 established rules that borrowing countries must follow in order to protect the rights of indigenous groups that may be impacted by their projects. Specifically, borrowing countries must identify likely impacts on indigenous peoples, develop a robust consultation strategy with them, and obtain FPIC.¹⁸⁵ Where FPIC is not obtained, the Bank may withdraw its support of a development project.¹⁸⁶

The Equator Principles, developed by the Equator Principles Association (an organization of sustainability-minded financial institutions) and adopted by ninety-four global financial institutions in thirty-seven countries for use in the various development projects they fund, affirm that “[p]rojects with adverse impacts on indigenous people will require their Free, Prior, and Informed Consent.”¹⁸⁷ In addition to providing that one of the purposes of FPIC is to ensure meaningful participation of indigenous peoples at every level of decision-making, the Equator Principles instruct actors to look to International Finance Corporation (IFC) Performance Standard No. 7 (“Indigenous Peoples”) when implementing the procedural requirements of FPIC.¹⁸⁸ The Food and Agriculture Organization of the United Nations (FAO) has also issued an authoritative manual on FPIC, instructing practitioners on how to incorporate FPIC into the design and implementation of projects and

183. See World Bank Grp., *Striking a Better Balance—The World Bank Group and Extractive Industries: The Final Report of the Extractive Industries Review* 16, 20-23 (2004), <http://documents.worldbank.org/curated/en/961241468781797388/pdf/300010GLB.pdf>.

184. WORLD BANK, ENVIRONMENTAL AND SOCIAL FRAMEWORK 2 (2016), <http://documents.worldbank.org/curated/en/383011492423734099/pdf/114278-WP-REVISED-PUBLIC-Environmental-and-Social-Framework.pdf>.

185. *Id.* at 79-82.

186. *Id.* at 10.

187. EQUATOR PRINCIPLES ASS'N, THE EQUATOR PRINCIPLES 8 (2013), http://equator-principles.com/wp-content/uploads/2017/03/equator_principles_III.pdf; *EP Association Members & Reporting*, EQUATOR PRINCIPLES ASS'N, <http://equator-principles.com/members-reporting> (last visited Nov. 3, 2018).

188. EQUATOR PRINCIPLES ASS'N, THE EQUATOR PRINCIPLES 21 (2013), http://equator-principles.com/wp-content/uploads/2017/03/equator_principles_III.pdf.

programs.¹⁸⁹ The FAO manual defines FPIC as a right that pertains specifically to indigenous peoples, allowing them to give or withhold consent to projects that may affect them or their territories and enabling them to negotiate the conditions under which projects will be designed, implemented, monitored, and evaluated.¹⁹⁰ It further recognizes the duty to obtain indigenous peoples' FPIC prior to the approval or commencement of any project that may affect their lands, territories, and resources.¹⁹¹

In the climate realm, the United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation (UN-REDD Programme), issued the UN-REDD Guidelines and an associated legal primer on FPIC in 2012, outlining a normative policy and operational framework for UN-REDD partner countries to seek and obtain FPIC from indigenous communities.¹⁹² In 2018, the Green Climate Fund (GCF) issued its long-awaited policy on indigenous peoples, affirming as a requirement for its projects that proponents obtain the FPIC of affected indigenous communities. To obtain GCF financing, accredited entities must seek FPIC for all proposed projects on land occupied or used by indigenous peoples.¹⁹³

In addition to international and regional instruments,¹⁹⁴ there are

189. FAO, FREE PRIOR AND INFORMED CONSENT: AN INDIGENOUS PEOPLES' RIGHT AND A GOOD PRACTICE FOR LOCAL COMMUNITIES: MANUAL FOR PROJECT PRACTITIONERS 4-5 (2016), <http://www.fao.org/3/a-i6190e.pdf>.

190. *Id.* at 12-13.

191. *Id.* at 17.

192. UN-REDD PROGRAMME, GUIDELINES ON FREE, PRIOR AND INFORMED CONSENT (2013), <https://www.uncclearn.org/sites/default/files/inventory/un-redd05.pdf>. The Guidelines characterize FPIC as a norm and standard that both supplements and provides a means to effectuate such substantive rights as property, participation, non-discrimination, self-determination, culture, food, health, and freedom against forced relocation. *Id.* at 9.

193. GREEN CLIMATE FUND, INDIGENOUS PEOPLES POLICY 14-16 (2018), https://www.greenclimate.fund/documents/20182/574763/GCF_policy__Indigenous_Peoples_Policy.pdf/6af04791-f88e-4c8a-8115-32315a3e4042.

194. Numerous other soft law instruments emerging at the regional level further elaborate on the nature and parameters of the obligation of state and non-state actors to obtain FPIC. In the Americas, the American Declaration on the Rights of Indigenous Peoples, adopted by the Organization of American States in 2016, provides that states must consult and cooperate in good faith with indigenous peoples "in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water, or other resources." Org. of Am. States, American Declaration on the Rights of Indigenous Peoples art. XXIX, § 4, OAS Doc. AG/RES.2888 (XLVI-O/16) (2016). In Asia, the final statement of the 2017 ASEAN Civil Society Conference/ASEAN People's Forum (ACSC/APF 2017) also affirmed the right of FPIC, declaring an intention to "[p]rioritize the participation and presentation of marginalized sectors, including . . . indigenous peoples," as well as asking states to comply with the FPIC of indigenous peoples "in development and corporate projects that threaten their lands and livelihoods." ACSC/APF 2017, ASEAN PEOPLES' DEMANDS FOR A JUST, EQUITABLE, AND HUMANE

multiple domestic legal instruments and case law expounding upon the duty to obtain the FPIC of indigenous peoples. For example, the influential Colombian Constitutional Court has held that “the information or notification that is given to the indigenous community in connection with a project of exploration or exploitation of natural resources does not have the same value as consultation.”¹⁹⁵ Rather, “formulas for concerted action or agreement with the community” should be presented so that the indigenous community “declares, through their authorized representatives, either their consent or their dissatisfaction in relation with the project, and the way in which their ethnic, cultural, social, and economic identity is affected.”¹⁹⁶

Likewise, the Supreme Court of Canada has consistently upheld the duty to consult with and obtain consent from indigenous peoples, even where the potential impacts on traditional territories and resources may be relatively minor.¹⁹⁷ Most recently, in the 2017 case of *Clyde River (Hamlet) v. Petroleum Geo-Services Inc.*, the Court overturned an oil company’s plan to collect seismic data in Inuit territory, honing in on the “informed” prong of FPIC and explaining that the right of FPIC is infringed where the Inuit are not informed about the potential impacts of a project.¹⁹⁸

With respect to mining in particular, in 2003, the South African Constitutional Court recognized and confirmed indigenous peoples’

SOUTHEAST ASIAN REGION 5 (2017), http://www.rmpnrm.org/sites/default/files/downloads/ACSCStatementon30thASEANSummit_Apr27.pdf. In the Scandinavian region, Finland, Norway, and Sweden, together with their respective Saami Parliaments, continue to negotiate the final text of the Saami Convention; Article 36 of the draft Convention expressly forbids the permitting of prospecting or extracting natural resources that would affect Saami utilization of the areas concerned without the consent of the Saami parliament and the affected Saami. Atle Staalesen, *Historic Sámi Agreement Starts Long Way Towards Ratification*, BARENTS OBSERVER (Jan. 16, 2017), <https://thebarentsobserver.com/en/2017/01/historic-sami-agreement-starts-long-way-towards-ratification>; Nordic Saami Convention art. 36 (2016) (unsigned draft), <https://www.sametinget.se/105173>. The 2011 Tirana Declaration, adopted by the International Land Coalition at a conference involving 150 representatives of international agencies and governments, civil society organizations, and social movements, denounces land grabbing that occurs without the FPIC of the indigenous peoples concerned. INT’L LAND COAL., TIRANA DECLARATION (2011), <http://www.landcoalition.org/sites/default/files/documents/resources/tiranadeclaration.pdf>.

195. Corte Constitucional [C.C.] [Constitutional Court], Feb. 3, 1997, Sentencia SU-039/97 (Colom.), *reprinted and translated in* ROQUE ROLDÁN ORTEGA, *INDIGENOUS PEOPLES OF COLOMBIA AND THE LAW: A CRITICAL APPROACH TO THE STUDY OF PAST AND PRESENT SITUATIONS* 104 (2000).

196. *Id.*

197. *See, e.g.,* Delgamuukw v. British Columbia, [1997] 3 S.C.R. 1010 (Can.); Taku River Tlingit First Nation v. British Columbia (Project Assessment Director), [2004] 3 S.C.R. 550 (Can.); Haida Nation v. British Columbia (Minister of Forests), [2004] 3 S.C.R. 511 (Can.).

198. *Clyde River (Hamlet) v. Petroleum Geo-Services Inc.*, [2017] 1 S.C.R. 1069, 1094-97 (Can.).

ownership of subsoil and other resources, precluding any right of the state to issue concessions on indigenous lands, and recognizing the need for indigenous peoples' FPIC.¹⁹⁹ In Australia, consent from indigenous peoples must be obtained in connection with mining through statutorily created indigenous-controlled Land Councils,²⁰⁰ while, in New Zealand, domestic law recognizes Maori rights to consent to activities that may affect their land.²⁰¹ Meanwhile, the Supreme Court of India issued a precedent-setting decision in the 2013 Niyamgiri case, affirming the rights of forest-dwelling indigenous peoples, particularly their right to give or withhold consent to the bauxite mining activities of Vedanta/Sterlite.²⁰²

199. *Alexkor Ltd. v. Richtersveld Cmty.* 2004 (5) SA 460 (CC) para. 64 (S. Afr.). *See also* *United States v. Shoshone Tribe of Indians of Wind River Reservation in Wyo.*, 304 U.S. 111 (1938) (holding that treaty creating reservation conferred right to minerals and timber); *Delgamuukw*, 3 S.C.R. at 1086-88 (recognizing indigenous ownership of the subsoil).

200. *Aboriginal Land (Jervis Bay Territory) Act*, 1986 (Cth) ss 43, 52A(1), (2) (Austl.); *Aboriginal Land Rights (Northern Territory) Act*, 1976 (Cth) pt IV (Austl.); *Aboriginal Land Rights Act*, 1983 (NSW) s 45(5) (Austl.); *Aboriginal Land Act*, 1991 (Qld) s 42 (Austl.); *Torres Strait Islander Land Act*, 1991 (Qld) s 80 (Austl.); *Mineral Resources Act 1989 (Qld) s 54 (Austl.)*; *Mineral Resources Development Act*, 1995 (Tas) pt 7 (Austl.).

201. *Crown Minerals Act 1991*, s 80 (N.Z.).

202. *Orissa Mining Corp. v. Ministry of Env't & Forest*, [2013] 6 SCR 881 (India). Other state examples abound. For instance, the Constitution of Peru recognizes that indigenous peoples have the right to be consulted in processes of state decision-making where any legislative or administrative measure would affect them or their traditional territories. *See* CONSTITUTE PROJECT, PERU'S CONSTITUTION OF 1993 WITH AMENDMENTS THROUGH 2009 art. 191 (2009), https://www.constituteproject.org/constitution/Peru_2009.pdf?lang=en. In 2011, the Peruvian Congress adopted the Law on the Right of Consultation of Indigenous Peoples, a national law incorporating the right of FPIC as expressed in the UNDRIP and the ILO Convention No. 169. *See* Glob. Legal Monitor, *Peru: New Law Granting Right of Consultation to Indigenous Peoples*, LIBRARY OF CONG. (Sept. 27, 2011), <https://www.loc.gov/law/foreign-news/article/peru-new-law-granting-right-of-consultation-to-indigenous-peoples>. The new law confers upon Peru's indigenous communities the right to be consulted in regard to "any activity, plan, administrative or legal measure, or development or project that would involve, affect, or take place in their ancestral territories." *Id.*

Similarly, the Constitution of the Plurinational State of Bolivia recognizes, among other things, consultation for the formation of autonomous native indigenous peasant territories, consultation on decisions relating to the environment, and consultation relating to the exploitation of natural resources on indigenous lands and territories. CONSTITUTE PROJECT, BOLIVIA (PLURINATIONAL STATE OF)'S CONSTITUTION OF 2009 arts. 290, 293-95, 343, 352, 403 (Max Planck Institute trans., 2009). The Plurinational Constitutional Tribunal of Bolivia, interpreting these constitutional provisions, declared that a free, prior, and informed consultation process is "a fundamental right inherent to these [indigenous] communities, their territory and way of life." The Tribunal affirmed the significance of mutual respect within the consultation process and the "State's respect for indigenous institutions which must actively participate in the process prior to the consultation, as well as its implementation." Carla García Zendejas, *Constitutional Judgment Reaffirms the Significance of Bolivia's Indigenous Rights*, WORLD JUSTICE PROJECT (Oct. 21, 2012), <https://worldjusticeproject.org/news/constitutional-judgment-reaffirms-significance-bolivia-s-indigenous-rights> (emphasis omitted) (quoting a decision of the Plurinational Constitutional Tribunal).

In sum, the legal obligation to obtain the FPIC of indigenous peoples ahead of large-scale extractive industry having the potential to harm them in their ancestral spaces—including in the use of their traditional resources—has become firmly established in international law. As explained in the following section, DSM activities undertaken pursuant to or under the authority of Part XI of UNCLOS must heed this development in international law.

V. “SECOND WAVE” DUE DILIGENCE: INCORPORATING FPIC INTO THE DSM REGIME

There is a strong case for incorporating FPIC into the DSM regulatory regime administered by the ISA. Article 138 of UNCLOS plainly instructs that any and all “[a]ctivities in the Area” must comply with “other rules of international law.”²⁰³ This would include the larger bodies of international environmental and indigenous rights law.²⁰⁴ As explained in this section, incorporating FPIC into the DSM regulatory regime should also be seen as mandated by UNCLOS as part of the general due diligence obligation of states engaged or seeking to engage in DSM activities in the Area. This Part will proceed as follows. First, it will explain the role of due diligence in the UNCLOS in general and DSM in particular, noting how the due diligence norm has been rapidly expanding to encompass a broad range of state responsibilities. Next the Part will draw on UNCLOS and broader principles of international law to explain that the modern due diligence norm comfortably encompasses FPIC. Given this reality, the ISA should take steps to incorporate FPIC into the regime it administers.

A. *Due Diligence in the UNCLOS Context*

The legal norm of due diligence is firmly entrenched in international environmental law and has expanded into the law of the sea, directed toward the protection of the marine environment. It has also evolved into an expansive concept, placing broad obligations on states to protect both marine and human environments. Adherence to this norm should be

203. Moreover, according to Dinah Shelton and Alexandre Kiss, “other rules of international law” and subsequent states parties’ practice “have proven more important in multilateral treaty interpretation than the original intent of the drafters, which the VCLT relegates to a subsidiary role The emphasis on the text and subsequent practice is particularly useful in giving effect to multilateral agreements, where the original intent of nearly 200 states would be extremely difficult to ascertain independently of the agreed-upon text.” Dinah Shelton & Alexandre Kiss, *Guide to International Environmental Law* (2007), 7 https://scholarship.law.gwu.edu/cgi/viewcontent.cgi?article=2047&context=faculty_publications.

204. UNCLOS, *supra* note 8, arts. 134, 138. See generally Alan Boyle, *Relationship Between International Environmental Law and Other Branches of International Law*, in *THE OXFORD HANDBOOK OF INTERNATIONAL ENVIRONMENTAL LAW* (2008).

required in any DSM regulatory regime. Part XII of the UNCLOS (Articles 192 through 237), which contains the general provisions related to marine environmental protection, sets out a series of obligations for states toward that end.²⁰⁵ Article 192 codifies the overarching “general obligation” of states, declaring that “States have the obligation to protect and preserve the marine environment.”²⁰⁶ Moreover, while Article 193 recognizes that “States have the sovereign right to exploit their natural resources pursuant to their environmental policies,” it limits the exercise of that right, requiring states to act “in accordance with their duty to protect and preserve the marine environment.”²⁰⁷

Article 194 elaborates on the general responsibilities of states to prevent harm to the marine environment, commanding states not only to adopt “all measures . . . necessary to prevent, reduce and control pollution of the marine environment,”²⁰⁸ but also to avoid causing any transboundary harm.²⁰⁹ Article 206 instructs that “[w]hen States have reasonable grounds for believing that planned activities under their jurisdiction or control may cause substantial pollution of or significant and harmful changes to the marine environment, they shall, as far as practicable, assess the potential effects of such activities on the marine environment.”²¹⁰ Article 213 further instructs states to adopt any and all necessary domestic measures to implement the duties set out in Part XII.²¹¹ Finally, Article 235 clarifies that states are “responsible for the fulfillment of their international obligations concerning the protection and preservation of the marine environment” and that “[t]hey shall be liable in accordance with international law.”²¹² The duties to prevent transboundary harm and to conduct environmental impact assessments are direct obligations under UNCLOS and general obligations under

205. *Id.* arts. 192-237.

206. *Id.* art. 192.

207. *Id.* art. 193.

208. *Id.* art. 194(1).

209. *Id.* art. 194(2). The duty to avoid causing transboundary harm is categorical: “States shall take all measures necessary to ensure that activities under their jurisdiction or control are so conducted as not to cause damage by pollution to other States and their environment, and that pollution arising from incidents or activities under their jurisdiction or control does not spread beyond the areas where they exercise sovereign rights in accordance with this Convention.” *Id.*

210. *Id.* art. 206.

211. *Id.* art. 214 (“States . . . shall adopt laws and regulations and take other measures necessary to implement applicable international rules and standards established through competent international organizations or diplomatic conference to prevent, reduce and control pollution of the marine environment arising from or in connection with seabed activities . . .”).

212. *Id.* art. 235(1).

customary international law, both of which apply to the Area.²¹³

UNCLOS tribunals have confirmed that the various duties respecting the prevention of harm to the marine environment form part of the general due diligence obligations of states in relation to their use of the sea and their respective commitments in connection with the same. For instance, in the 1999 *Southern Bluefin Tuna Cases*, ITLOS issued provisional measures in a matter brought by Australia and New Zealand against Japan, alleging that Japan's experimental fishing program violated its obligation under the UNCLOS to cooperate in the conservation of the southern bluefin tuna species.²¹⁴ Linking the specific duty to prevent harm to that tuna species to the general obligation of states to act with due diligence, the tribunal ordered all parties to "act with prudence and caution to ensure that effective conservation measures are taken to prevent serious harm to the stock of southern bluefin tuna."²¹⁵

This connection between due diligence and the precautionary principle was affirmed again in the 2011 Seabed Mining Advisory Opinion.²¹⁶ There, the Seabed Disputes Chamber of ITLOS construed the meaning of the sponsoring state's "responsibility to ensure" with respect to the protection of the marine environment in Article 139 of Part XI of the UNCLOS in relation to DSM activities in the Area. The Seabed Disputes Chamber determined that the obligation to "ensure" is not one

213. UNCLOS, *supra* note 8, art. 194(2); see *Trail Smelter Case* (U.S. v. Can.), 3 R.I.A.A. 1905, 1905 (Perm. Ct. Arb. 1941); United Nations Conference on the Human Environment, *Declaration of the United Nations Conference on the Human Environment*, princ. 21, U.N. Doc A/CONF.48/14/Rev.1 (June 16, 1972); International Law Commission (ILC), Draft Articles on Prevention of Transboundary Harm from Hazardous Activities [with commentary], in Report of the International Law Commission, 53d Sess., UN G.A.O.R., 56th Sess., Supp. No. 10 at 370, 378 art. 3, UN Doc. A/56/10 (2001) (providing that "[t]he State of origin shall take all appropriate measures to prevent significant transboundary harm or at any event to minimize the risk thereof"); *Pulp Mills on the River Uruguay* (Arg. v. Uru.), Request for the Indication of Provisional Measures Order, 2006 I.C.J. Rep. 113 (July 13), <http://www.icj-cij.org/files/case-related/135/135-20060713-ORD-02-00-EN.pdf>. In the *Pulp Mills on the River Uruguay* (Arg. v. Uru.) case, the International Court of Justice considered the preparation of EIAs prior to conducting an activity that could potentially cause a transboundary environmental harm as "a requirement under general international law." Judgment, 2010 I.C.J. Rep. 14, at 82–83 (Apr. 20). This obligation extends to the continuous monitoring of environmental impacts from such activities once it commences. *Id.* at 84. The Seabed Disputes Chamber of the International Tribunal for the Law of the Sea referred to the ICJ ruling and observed that the requirement to conduct EIAs is a direct obligation under UNCLOS and a general obligation under customary international law that applies to the Area. See *Responsibilities and Obligations of States Sponsoring Persons and Activities with Respect to Activities in the Area*, Case No. 17, Advisory Opinion of Feb. 1, 2011, ITLOS Rep. 10, 50 ¶¶ 145, 147–148 https://www.itlos.org/fileadmin/itlos/documents/cases/case_no_17/17_adv_op_010211_en.pdf.

214. *Southern Bluefin Tuna Cases* (N.Z. v. Japan; Austl. v. Japan), Case Nos. 3 & 4, Provisional Measures, Order of Aug. 27, 1999, ITLOS Rep. 280.

215. *Id.* at 296.

216. *Seabed Mining Advisory Opinion*, *supra* note 71.

ultimately to “achieve, in each and every case,” a particular result, but rather a general obligation of “due diligence.”²¹⁷ The tribunal further noted that the concept of “due diligence” is dynamic and may “change over time as measures considered sufficiently diligent at a certain moment may become not diligent enough in light, for instance, of new scientific or technological knowledge.”²¹⁸ Taking the *Southern Bluefin Tuna Cases* further, the Seabed Disputes Chamber affirmed that the precautionary approach is an integral part of the general obligation of due diligence of states sponsoring DSM in the Area.²¹⁹ According to the Chamber, the due diligence obligation therefore requires states sponsoring DSM in the Area to take

all appropriate measures to prevent damage that might result from the activities of contractors that they sponsor. This obligation applies in situations where scientific evidence concerning the scope and potential negative impact of the activity in question is insufficient but where there are plausible indications of potential risks.²²⁰

ITLOS next expanded the normative content of due diligence in its 2015 IUU Fishing Advisory Opinion, addressing issues incident to illegal, unreported, and unregulated (IUU) fishing.²²¹ According to the tribunal, it followed from Articles 58, 62, and 192 of the UNCLOS that states are “obliged to take the necessary measures to ensure that their nationals and vessels flying their flag are not engaged in IUU fishing activities.”²²² This obligation, according to ITLOS, is one of “due diligence.”²²³ Moreover, the tribunal confirmed that this due diligence obligation, at least in the context of illegal fishing activities, was not limited to states’ maritime borders but rather extended to international waters, including the Area, or anywhere where states exercise power over entities “under their control.”²²⁴

In the 2016 *South China Sea Arbitration*, an arbitral tribunal established under Annex VII of the UNCLOS further enlarged the scope of states’ due diligence responsibilities when it ruled in favor of the Philippines in a case brought against China for tolerating harmful fishing

217. *Id.* paras. 108-110.

218. *Id.* para. 117.

219. *Id.* paras. 121-122.

220. *Id.* para. 131.

221. Request for Advisory Opinion Submitted by the Sub-Regional Fisheries Commission, Case No. 21, Advisory Opinion of Apr. 2, 2015, ITLOS Rep. 4.

222. *Id.* para. 124.

223. *Id.* at 63.

224. *Id.* para. 126.

practices by its nationals and for constructing artificial islands in the highly contested waters of the South China Sea.²²⁵ There, the Philippines invoked the general marine environmental protection provisions of Part XII of the UNCLOS, arguing that China's obligations were not limited to areas over which it enjoyed sovereign rights or jurisdiction, but rather existed independently under the due diligence obligation imposed on all states to protect the marine environment generally, including those areas beyond national jurisdiction.²²⁶ The tribunal concluded that China was in breach of its due diligence under Articles 192 and 194 of the UNCLOS.

The *South China Sea Arbitration* is also important because the tribunal invoked the "other rules of international law" terminology of Article 293 of Part XV of the UNCLOS in order to apply standards of other environmental legal regimes outside of that treaty. Specifically, in construing China's obligation under Articles 192 and 194 to protect and preserve the marine environment, the tribunal adopted standards established by the Convention on Biological Diversity and the Convention on International Trade in Endangered Species of Wild Fauna and Flora regimes, respectively.²²⁷ According to the tribunal, Article 293 allowed it to apply those extra-UNCLOS standards to the dispute as "other rules of international law" not incompatible with the Convention.²²⁸

South China Sea Arbitration and the other aforementioned cases are legally significant for two reasons, both of which lead to the conclusion that FPIC should be incorporated into the DSM regulatory regime. First, these cases demonstrate why, and how, UNCLOS tribunals import larger bodies of international law in order to interpret the specific duties of states with regard to their various uses of the sea (e.g., fishing, mining, conservation). On this score, UNCLOS tribunals have not only broadly construed the phrase "other rules of international law" to mean general international law—they have also read a general obligation of due diligence into the panoply of UNCLOS provisions. These tribunals have also read other fundamental tenets of international environmental law such as the precautionary approach²²⁹ and the duty to avoid transboundary harm²³⁰ into the norm of due diligence itself. In sum, these cases have steadily expanded the scope of the due diligence legal norm. Given the

225. S. China Sea Arbitration (Phil. v. China), Case No. 2013-19, Award (Perm. Ct. Arb. 2016), <https://pcacases.com/web/sendAttach/2086>.

226. *Id.* para. 907.

227. *Id.* para. 956, 959, 960-966.

228. *Id.* para. 236.

229. RESOURCE ROULETTE, *supra* note 8, at 55-56.

230. *Id.*

identical wording of Article 138 of Part XI of the UNCLOS, respecting the textual command that “activities in the Area” comply with “other rules of international law,” we see no doctrinal obstacle to—and, indeed, a strong foundation for—one further expansion: that the FPIC-related requirements of international law, elaborated upon in the preceding section, be incorporated into the DSM regulatory regime. Second, these cases reveal that historical maritime conceptions, once strictly premised on fixed zones, have experienced a profound shift—at least with respect to the duty of states to protect the environment and the liability that attaches for failure to faithfully discharge that duty. It is now firmly established that states cannot evade liability for harm to the marine environment either because of *who* exactly is doing the harm (i.e., states versus private actors they control) or *where* exactly the activity causing the harm takes place (i.e., in domestic versus international maritime zones).

Together with its development in international environmental law more generally,²³¹ the case for incorporating FPIC into the DSM regulatory regime fits comfortably under the normative umbrella of due diligence. As we have shown, the case for doing so, particularly in the Pacific context, is strong given the mounting evidence of potential harms of DSM, both to the marine and human environments, particularly the region’s indigenous peoples.

Incorporating FPIC into the DSM regulatory regime, however, need not be overly burdensome or unwieldy; rather, States Parties could attempt to meet their due diligence obligations under UNCLOS by calling

231. To be sure, due diligence, including its iteration in the associated principles of precaution and avoidance of transboundary harm, enjoys its fullest expression in international environmental law. *See, e.g.*, Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 37 I.L.M. 22; 1996 Protocol to the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, Nov. 7, 1996, 36 I.L.M. 7; Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of December 10, 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, Aug. 4, 1995, 2167 U.N.T.S. 3 (entered into force Dec. 11, 2001); Montreal Protocol on Substances that Deplete the Ozone Layer, *opened for signature* Sept. 16, 1987, 1522 U.N.T.S. 3 (entered into force Jan. 1, 1989); Pulp Mills on the River Uruguay (Arg. v. Uru.), Order, 2006 I.C.J. 113 (July 13); Trail Smelter Case (U.S. v. Can.), 3 R.I.A.A. 1905 (1941); Int’l Law Comm’n, Rep. on the Work of Its Fifty-Third Session, U.N. Doc. A/56/10, at 370, 378 (2001) (“Draft Articles on Prevention of Transboundary Harm from Hazardous Activities”); U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, princs. 14-15, U.N. Doc. A/CONF.151/26/Rev.1 (Vol. I) (Aug. 12, 1992); U.N. Conference on the Human Environment, *Declaration of the United Nations Conference on the Human Environment*, princ. 21, U.N. Doc A/CONF.48/14/Rev.1 (June 16, 1972); Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, 241-42 (July 8); Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area, Case No. 17, Advisory Opinion of Feb. 1, 2011, ITLOS Rep. 10, ¶ 125-35.

on the ISA to institute some form of consultative mechanism, potentially within its own auspices, that would go a substantial way towards fulfilling the FPIC requirement. For example, states could request that the ISA institutionalize participation and observer status for independent representatives of indigenous groups and civil society by creating some sort of forum for indigenous peoples, similar to the U.N. Permanent Forum on Indigenous Issues.²³² Such a forum would provide substantially more access and voice to previously underrepresented groups and to civil society.²³³ In addition to a mechanism within the ISA itself, states sponsoring specific DSM projects, such as those in the CCFZ, should attempt to identify potentially impacted indigenous groups and begin consultation and FPIC procedures well before mining commences. Such procedures could include, among others, public hearings and comment periods, as well as direct discussions with potentially impacted communities.²³⁴ Provisions to incorporate indigenous FPIC and

232. The U.N. Permanent Forum on Indigenous Issues is a high-level advisory body to the Economic and Social Council established by the General Assembly to provide expert advice and recommendations and raise awareness on indigenous issues within the U.N. system. *Permanent Forum*, U.N. DEP'T SOC. & ECON. AFFAIRS DIV. FOR INCLUSIVE SOC. DEV., <https://www.un.org/development/desa/indigenouspeoples/unpfii-sessions-2.html> (last visited Nov. 8, 2018).

233. Greater access for civil society, in addition to formalized statuses for indigenous peoples at the ISA, would also help to alleviate the underrepresentation of other marginalized groups, including women and children who, along with indigenous peoples, tend to be disproportionately disadvantaged and affected by environmental harms and disasters, while also receiving less benefit from development/extractive projects. *See, e.g., Disaster and Gender Statistics*, IUCN (last visited Nov. 8, 2018), http://cmsdata.iucn.org/downloads/disaster_and_gender_statistics.pdf; UNICEF, CHILDREN'S VULNERABILITY TO CLIMATE CHANGE AND DISASTER IMPACTS IN EAST ASIA AND THE PACIFIC (2011), http://www.unicef.org/environment/files/Climate_Change_Regional_Report_14_Nov_final.pdf; *The World Bank's Role in Gender, Communities and the Extractive Industries*, THE WORLD BANK (2016), <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTO/GMC/EXTTEXTINDWOM/0,,contentMDK:21187134~menuPK:5874691~pagePK:210058~piPK:210062~theSitePK:3156914,00.html>; *Women and the Extractive Industries*, THE WORLD BANK ET AL. (last visited Nov. 8, 2018), http://siteresources.worldbank.org/EXTTEXTINDWOM/Resources/Women_and_the_Extractive_Industries_Factsheet.doc?resourceurlname=Women_and_the_Extractive_Industries_Factsheet.doc. PNG women in coastal areas surrounding Nautilus's Solwara 1 Project expressed concern that the project would bring them limited, if any, economic opportunities, given that DSM creates very few local jobs (and those on the mining vessel would likely go to men). *See* RESOURCE ROULETTE, *supra* note 8, at 32.

234. It is typical in the context of many other large-scale extractive projects for there to be open hearing and comment periods in which individuals and groups can comment on EIAs and other aspects of the proposal at issue. In British Columbia, public and aboriginal engagement is embedded in the review process for major mining projects through periods of public commenting, as well as a number of administrative boards, which may include members of local and Aboriginal communities that monitor the proposed project. Ministry of Energy and Mines, *Health, Safety and Reclamation Code for Mines in British Columbia*, §§ 10.2.1-2 (2017)e; Public Notification Regulation, B.C. Reg. 202/94 (Can.). *See also* GOV'T OF CAN., *Canadian Environmental Assessment Registry*, <http://www.ceaa-acee.gc.ca/050/index-eng.cfm> (last visited Nov. 8, 2018). It should be pointed out here that prescribing the method(s) by which state and non-state actors seeking to engage in DSM

consultation should go beyond applying for and receiving mere ISA observer status; measures should ensure some ability for indigenous groups to provide direct input and possess a level of influence over procedures likely to have the aforementioned impacts.

Substantively addressing the rights of indigenous peoples most likely to be affected by DSM promises better environmental stewardship, social stability, and outcomes than cases in which relevant actors fail to obtain a social license to operate.²³⁵ Such an approach also represents a break from the cycle of destructive, nonconsensual experimentation historically carried out in the Pacific region, the calamitous consequences of which are still highly visible.²³⁶

In sum, the range and breadth of impacts detailed in Part I (and the harms associated with DSM that they foreshadow) fall well within the established requirements for FPIC. DSM can clearly be seen as an extractive industry that threatens irreversible adverse impacts on indigenous peoples and their resources, whether it occurs in the Area or in national waters. Such risks strongly support the case for incorporating FPIC into the DSM regulatory regime as part of a general due diligence obligation of any state engaged or seeking to engage in DSM activities in the Area. Per *South China Sea* and other UNCLOS jurisprudence, such a general due diligence obligation ought to be read into the specific duties to prevent harm to the marine and human environments enshrined in Articles 145 and 146 of Part XI of the UNCLOS. Such an obligation is further supported by application of Article 138 of the same, which unambiguously instructs that DSM activities in the Area must be undertaken in conformance with other rules of international law. We therefore submit that recalibrating the conventional account of DSM in order to incorporate the FPIC-related requirements of the international indigenous rights regime should be seen as a welcome second wave of due diligence.

should implement the FPIC requirement in each and every case is well beyond the scope of this article; rather, we seek only to substantiate the claim that the DSM regulatory regime must be thoroughly recalibrated in order to reflect those “other rules of international law,” including FPIC.

235. See *supra* note 119.

236. See generally JULIAN AGUON, *WHAT WE BURY AT NIGHT: DISPOSABLE HUMANITY* (2008) (tracing the dispossession of the peoples of Micronesia, with emphasis on first-hand accounts of remembered trauma resulting from the United States’ presence and policies in the region); HOLLY M. BARKER, *BRAVO FOR THE MARSHALLESE: REGAINING CONTROL IN A POST-NUCLEAR, POST-COLONIAL WORLD* (2004) (using testimonials, archives, and ethnographic research to examine the haunting legacy of the U.S. nuclear testing program in the Marshall Islands); NIC MCLELLAN & JEAN CHESNEAUX, *AFTER MORUROA: FRANCE IN THE SOUTH PACIFIC* (1998) (tracing the history of French colonialism in the Pacific and examining the social, cultural, political, and economic impacts of France’s presence in the region).

VI. CONCLUSION

This Article has demonstrated that the international regulatory regime for DSM, as it currently exists, is incompatible with its own mandate, as set out in Part XI of the UNCLOS, to protect the common heritage of humankind and abide by international law at large. In short, the regime governing DSM in the Area has excluded relevant areas of international environmental law and human and indigenous rights, particularly the right of indigenous peoples to free, prior, and informed consent. Collectively, these principles are among the “other rules of international law” with which the DSM regime, as administered by the ISA, must comply. This exclusion has rested on the flawed and hitherto unchallenged assumption that DSM carried out in the Area is both spatially and legally distant from human communities from whom consent (and, at a bare minimum, consultation) would be required under prevailing international law models and best practices. Exploratory DSM has already caused significant adverse effects on Pacific indigenous and coastal communities, while recent scientific studies forewarn of still more devastation once large-scale commercial mining begins. Combined with the expanding notion of due diligence and increasingly precautionary approaches in the law of the sea, the very nature of DSM—whether carried out in the CCFZ or in the domestic waters of PI states—triggers an international law requirement to obtain the free, prior, and informed consent of the Pacific indigenous peoples living at the frontlines of this new extractive industry.