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Lisa M. Campbell

Duke University Marine Laboratory, lcampbe@duke.edu

Robin Fail

Duke University Marine Laboratory

Rebecca Horan

Duke University Marine Laboratory

Leslie Acton

University of Southern Mississippi, leslie.acton@usm.edu

Jeffrey E. Blackwatters

Colorado State University

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Architecture and agency for equity in areas beyond national jurisdiction

Lisa M. Campbell^{a,*}, Robin Fail^a, Rebecca Horan^a, Leslie Acton^b, Jeffrey E. Blackwatters^c, Alejandro Garcia Lozano^{d,e}, David Gill^a, Noella Gray^f, Rebecca Gruby^c, Emily Melvin^b, Grant Murray^a, Emilie Wiehe^f

^a Duke University Marine Lab, 135 Duke Marine Lab Road, Beaufort, NC, 28516, USA

^b Division of Coastal Sciences, University of Southern Mississippi, 703 East Beach Drive, Ocean Springs, MS, 39564, USA

^c Dept. of Human Dimensions of Natural Resources, Colorado State University, Fort Collins, CO, 80523, USA

^d Arizona State University, School of Sustainability, Wrigley Hall, 800 Cady Mall #108, Tempe, AZ, USA, 85281, USA

^e Nippon Foundation Ocean Nexus Center, University of Washington, EarthLab, 909 Boat Street, Box 355674, Seattle, WA, 98105, USA

^f Geography, Environment and Geomatics, University of Guelph, 50 Stone Road East, Guelph, ON, N1G 2W1, Canada

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ABSTRACT

The United Nations (UN) Sustainable Development Goals (SDGs) and the UN Decade of Ocean Science for Sustainable Development (Ocean Decade) bring increased attention to various aspects of ocean governance, including equity. One of the Ocean Decade's identified challenges is to develop a sustainable and equitable ocean economy, but questions arise about how to conceptualize the multiple dimensions of equity in an ocean context. These questions become more complex as activities move away from coastal ecosystems and communities into off-shore Areas Beyond National Jurisdiction (ABNJ), where ocean resources are recognized simultaneously as unowned/open access and as common heritage. In this paper, we mobilize the Earth System Governance analytics of 'architecture' and 'agency', to reflect on the possibilities for equity in ABNJ. Motivated by the general attention to equity in UN initiatives like the SDGs and the Ocean Decade, we describe current UN architecture for ocean governance, including principles that might support equity. Existing UN architecture focuses on distributional equity among nation states, with less attention to recognition or procedural equity. State actors have most agency, while non-state actors can exercise some via broad UN declarations and through mechanisms like 'major groups.' We use on-going negotiations in the International Seabed Authority on rules for mineral exploitation and in the Intergovernmental Conference on an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of Areas Beyond National Jurisdiction to illustrate how existing architecture shapes possibilities for equity in ABNJ. As new governance possibilities are imagined, attending to existing architecture and agency can help avoid further entrenching existing power imbalances and unwittingly reproducing or exacerbating inequities.

1. Introduction

The United Nations (UN) Decade of Ocean Science for Sustainable Development (hereafter Ocean Decade), launched in June 2021, aligns with UN Sustainable Development Goals (SDGs) and aims to build "the science we need for the oceans we want" (UN, n.d.). The SDGs and the Ocean Decade both address concerns of equity: the SDGs within goal 10 (Reduce Inequality), and the Ocean Decade in identifying the development of a sustainable and equitable ocean economy as one of the decadal challenges. This attention to equity is timely given new and renewed interest in oceans for their conservation and development potential

(Campbell et al., 2016), interest reflected in growing enthusiasm for the blue economy among coastal states, ocean industries, UN agencies, multilateral development institutions, and ocean philanthropies. Attention to equity is also reflected in specific on-going negotiations in the UN and its agencies on rules for exploiting deep sea minerals and to craft a new agreement for conservation and sustainable use of marine biodiversity. When finalized, these agreements will usher in a new era of UN sanctioned enclosure for both exploitation and conservation. Given evidence of a 'blue acceleration' (Jouffray et al., 2020) and that "inequity is a systemic characteristic of the current ocean economy" (Alexander et al., 2021, 2), efforts to center equity in any new era of ocean

* Corresponding author.

E-mail address: lisa.m.campbell@duke.edu (L.M. Campbell).

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science, exploration, exploitation, and conservation are critical. To quote Leach et al. (2018), “Addressing rising inequalities and inequities, and maintaining a stable and resilient planet are two defining and interdependent challenges of our age.”

Against this backdrop of attention to equity in both general UN initiatives and specific negotiations, in this essay, we mobilize the Earth Systems Governance (ESG) research lens of architecture and agency to consider possibilities for and constraints on ocean equity in areas beyond national jurisdiction (ABNJ). Architecture is “defined as the interlocking web of widely shared principles, institutions and practices that shape decisions at all levels in a given area of earth system governance” (Biermann et al., 2009, 36), while agency attends to questions of “who acts, and in whose name, and to further what aims?” (Burch et al., 2019, 8). In ESG, agency is “intricately related” (Biermann et al., 2009, 39) to architecture, and the two are ‘paired’ in the 2019 framework. Architecture is both constituted by and constitutes agents, by structuring the ability of different stakeholders to act, and with what effects. This is done through rules and norms of participation and decision-making, and whether and how different forms of knowledge, values, or claims are recognized and accommodated therein. The UN provides existing architecture for ABNJ governance. After briefly defining equity (section 2), we identify some components of UN architecture that shape the pursuit of equity in ABNJ governance (section 3). Components include treaties and agreements, but also established principles defined and adopted by the UN as well as decision-making norms and procedures. We describe how various architectural components are being mobilized by state and non-state actors (including academics) seeking to influence directly or indirectly two sets of ongoing negotiations, first in the International Seabed Authority to extend its Mining Code to include rules for exploitation of seabed minerals (hereafter ISA negotiations), and second in the Intergovernmental Conference on an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of Areas Beyond National Jurisdiction (hereafter BBNJ treaty negotiations) (section 4). We engage these negotiations as concrete (and timely) examples to think through whether and how UN architecture can support equity in ABNJ more generally. Our engagement is designed to illustrate possibilities for and constraints on equity rather than to provide a comprehensive assessment of the negotiations to date. Readers seeking further detail on negotiations will find references to relevant studies throughout this essay.

Given aspirations for equity in programs like the Ocean Decade and broad and increasing interest in oceans for their conservation and development potential, attending to how existing governance architecture shapes possibilities for equity seems critical. Equity initiatives in ABNJ will not unfold on a blank slate, but within or against a backdrop of existing UN architecture. Failure to recognize this can result in missed opportunities to advance equity using already existing architecture at best, and at worst undermine efforts by others to do so. Part of our motive in writing this is to counter descriptions of ABNJ as an untamed frontier, a kind of ‘wild west’, absent of governance architecture. The characterization is problematic on a number of fronts and runs the danger of increasing inequities in ocean governance. We return to this point in the final section of the paper (section 5).

2. Defining equity

Equity concerns relating to global environmental issues are longstanding and relate to both systemic inequities embedded in and reproduced through the broader governance architecture and to specific inequities arising from related policies, programs, or projects. For example, equity concerns, particularly in relation to agency, are central in debates about climate change: who contributes to it through fossil fuel driven economic development, who is most impacted by it, who is responsible for addressing it, and who bears the burden of any efforts to do so (Schlosberg and Collins, 2014; Sultana, 2022). Equity is often mobilized in the face of inequity, recognizing that some people –

individually or aggregated in groups, communities, industries, regions, nations – bear more of the costs and gain few of the benefits arising from governance architecture and its policies, programs, or projects, and have little agency to address this. Within the literature, people experiencing inequities or targeted by interventions to address them are often referred to as ‘subjects’ (e.g. McDermott et al., 2013; Sikor et al., 2014; Friedman et al., 2018). The language of ‘subjects’ (or targets, or recipients) contrasts with the ESG framework’s interest in agency, and we explore this tension further below in the context of the UN.

Although distributional equity receives most attention in the literature (Friedman et al., 2018), equity is recognized as multi-dimensional. Along with distribution, “the procedure by which decisions are made and who has a voice; and recognition - acknowledgement of and respect for the equal status of distinct identities, histories, values, and interests of different actors” (Friedman et al., 2018, 2) are also recognized as important. These three dimensions are embedded in (or surrounded by) ‘enabling conditions’ (McDermott et al., 2013), i.e. the social, economic, environmental, cultural, and political context in which efforts to advance equity are undertaken (Sikor et al., 2014; Martin et al., 2015; Zafra-Calvo et al., 2017; Gurney et al., 2021; Lau et al., 2021, to name a few). Context includes the extent to which existing architecture supports equitable or inequitable distribution, recognition, and procedure. In this sense, existing governance architecture is part of the context in which efforts to support equity are situated. Further, defining what constitutes equity is itself contextually grounded (Schroeder and McDermott, 2014) and perceived differently across scales and among subjects (Sikor et al., 2014; Martin et al., 2015; Gurney et al., 2021). Context is often included as the fourth dimension of equity, and additional dimensions or considerations are added for specific topics and issues. For global environmental issues, including oceans governance, intra- versus inter-generational equity and extending equity to non-human species or nature as ‘subjects’ are two additional considerations (Schlosberg and Collins, 2014; Sikor et al., 2014; Harden-Davies et al., 2020).

Although there are important distinctions arising from how equity and justice were originally mobilized in the environmental field (Dawson et al., 2018; Marion Suseeya, 2021), the terms are often used interchangeably, including with reference to the four dimensions described above. The ESG framework includes justice paired with allocation as one of its research lenses (Burch et al., 2019), but takes a different approach to dimensions, identifying these as intergenerational, international, and intersectional justice. We use the term equity to distinguish our use from the ESG justice-allocation lens (Burch et al., 2019) and because equity is the term used most frequently within existing architecture and literature on ocean governance.

3. UN governance architecture for ABNJ

The UN, through the United Nations Convention on the Law of the Sea (UNCLOS (UN, 1982)), is the formally recognized authority for ABNJ governance. Equity concerns in the UN are articulated primarily as distributional, between developed versus developing countries.¹ ‘Subjects’ of equity are thus nation states disadvantaged in the global political economy and its institutions, and their agency to address equity concerns is constituted through those same institutions. Although this is true throughout the UN (which is, after all, a union among nations), the centrality of the nation state is particularly relevant in ABNJ, which are

¹ The politics of dividing and labeling the world is well recognized; we use developed and developing countries to refer to nation states in the context of the United Nations, where these terms are the norm. Outside of this specific context, we refer to the Global South and Global North.

often constructed as ‘unpeopled’ spaces of nature and economy, but not society (Steinberg, 2001, 2008). This construction matters, because if ABNJ are unpeopled and society absent, then concerns for equity among people are irrelevant and nation states are the only ‘subjects’ of interest.² Oceans governance via the UN has focused primarily on economic activity (traditionally by sector) and related environmental impacts, at global or regional scales, to be managed via cooperation among states.

Architecture to enhance equity among states exists within UNCLOS, as well as in other principles, declarations, and resolutions of relevance within the wider UN system. And, despite the focus on equity among states and the ‘unpeopled’ construction of ABNJ, there are some UN provisions that can be mobilized to extend equity to non-state subjects. We consider these provisions for enhancing equity among state and non-state actors separately below.

3.1. Equity among states

Often referred to as the ‘constitution of the oceans,’ UNCLOS provides the main architecture for ABNJ governance.³ One of its key functions was to distinguish state from non-state territory and, in so doing, UNCLOS establishes ABNJ as spaces to be governed and the principles for doing so. Within state territory, UNCLOS differentiates among zones delineated by distance from shore (e.g. territorial sea, contiguous zone, and exclusive economic zone) and details rights and authorities of coastal states (and limits on those rights and authorities) for each zone, within the water column and on the seabed. Although all coastal states have the same rights and authorities, they do not have equal capacity to exercise them. Beyond state territory, UNCLOS divides ABNJ into the high seas (the water column) and the Area (the seabed), to be governed separately. Many agenda items were contentious during UNCLOS negotiations⁴ (Okereke, 2008; Steinberg, 2001), but governance of ABNJ (and in particular the seabed) was a critical motivation and sticking point, and equity and justice were central to the debate. Thus, UNCLOS negotiations provide context for understanding the specific principles, norms, and rules that emerged and that have implications for distributional, recognition, and procedural equity in ABNJ governance and in on-going ISA and BBNJ treaty negotiations.

UNCLOS negotiations were infused with the language of both equity and justice, used frequently in preparatory documents and negotiations, and referenced six times in the eight preambular paragraphs to the final agreement (Okereke, 2008). The language reflects efforts by developing countries to shift oceans governance away from ‘*mare liberum*’ (freedom of the seas (FOS)), which served the interests of powerful maritime states in the ‘frictionless’ movement of ship-based trade and the military across a ‘smooth’ ocean surface (Steinberg, 2001). As a principle of customary law, FOS relied on the “presumption that every state had an equal opportunity to appropriate the resources of the sea,” one that was demonstrably false and lacked “any sustained consideration of equity, justice and fairness among states” (Okereke, 2008, 58). The protracted third round of UNCLOS negotiations from 1973 to 1982 can be read as efforts by developed maritime states to maintain FOS in the face of developing country interests in a new political-economic order that was more equitable. Although equity was a general point of debate, it was specifically relevant to the issue of potential seabed mining in the Area,

² This contrasts with other areas of UN activity, e.g. to promote conservation through terrestrial protected areas (PAs). In meeting agreed upon UN goals for PA expansion (e.g. in the SDGs or Convention on Biological Diversity), states must confront the impacts on people living with and using resources.

³ UNCLOS is an extensive agreement, with 320 Articles and 9 Annexes. We highlight elements most relevant to our overall argument, rather than all relevant elements.

⁴ There were three rounds of UNCLOS negotiations, beginning in 1949. The third round was protracted, and resulted in the final agreement in 1982, which was fully ratified in 1994.

and concern by developing countries to “decelerate the colonial rush to the ocean floor” (Vadrot et al., 2021, 1) by states with the technical capacity to exploit valuable seabed minerals.

The first of four principles we describe speaks directly to distributional equity and arose in the context of UNCLOS negotiations. Arvid Prado, Permanent Representative of Malta to the UN, first proposed the *Common Heritage [of mankind] Principle* (CHP, Table 1) to the UN General Assembly in 1967. Prado was concerned by “the huge disparity in wealth that would occur if the area were managed in ways that allowed those with advanced technology to gain exclusive access” (Okereke, 2008, 64). The UN adopted a resolution (2749 (XXV) 1970) declaring the seabed and floor as the common heritage of all humankind, meaning the benefits of any mineral exploitation in the Area must be shared by all. CHP was incorporated into UNCLOS and was to be operationalized through a UN owned and operated mining Enterprise. The Enterprise would partner with private firms based in developed countries to exploit minerals, and then redistribute associated economic benefits among non-mining countries. Participation by the Enterprise, and by developing countries wanting to mine, would be enabled by technology transfer from developed countries. CHP, or more specifically the potential to operationalize it through the Enterprise, was ‘watered down’ in the 1994 Implementing Agreement for Part XI (the Area) of UNCLOS (hereafter the 1994 Implementing Agreement, UN, 1994), which introduced market logic overall and, among other things, stipulated that technology transfer would occur at ‘fair market price’ (Steinberg, 2001; Okereke, 2008; Zalik, 2018; Collins and French, 2020). Nevertheless, CHP is still mobilized in general, and in on-going ISA and BBNJ treaty negotiations, to “contest the hegemony of traditional sea powers” and their preference for FOS (Vadrot et al., 2021, 19; see section 4).

Although the full potential of CHP to support distributional equity has been under-realized to date, negotiators innovated measures to enhance procedural equity in producing the final UNCLOS agreement. Innovations included agreements among states to work towards ‘consensus’ adoption of text as a ‘package deal,’ in order to prevent powerful states from dominating the agenda and to deter them from negotiating only on specific articles of interest. Further, committees were formed with attention to representation by developing countries, including in chair positions. Although the extent to which procedural innovations for negotiations supported improved distributional equity via UNCLOS is questionable, innovations were designed intentionally to enhance the agency of developing countries in negotiations and to increase chances of compliance by all states with an eventual agreement (Okereke, 2008). ‘Consensus’ agreement on a ‘package deal’ has become standard practice in many UN processes, including on-going BBNJ treaty negotiations (A/Res/72/249).

Access and Benefits Sharing (ABS) is a second principle directly relevant to equity. Although UNCLOS references both access to and benefits from marine resources, ABS as a principle was developed more fully in the context of Article 15 of the *UN Convention on Biological Diversity* (UN, 1992a, Article 15) and later operationalized in its *Nagoya Protocol on Access To Genetic Resources And The Fair And Equitable Sharing Of Benefits Arising From Their Utilization* (hereafter Nagoya Protocol, Secretariat of the Convention on Biological Diversity (SCBD, 2011)). In the CBD, “Access and benefit-sharing (ABS) refers to the way in which genetic resources may be accessed, and how the benefits that result from their use are shared between the people or countries using the resources (users) and the people or countries that provide them (providers)” (SCBD, 2010). Users and providers generally break down along developed versus developing country lines, with developed countries seeking to maintain access to biodiversity with as few constraints as possible, while developing countries seek to ensure access is compliant with domestic regulations designed to ensure that benefits from use of biodiversity are shared (distributional equity), and that the rights and knowledge of traditional knowledge holders are protected (recognition equity). After 6 years of negotiation (and 18 years after ABS was identified as one of three pillars of the CBD), the Nagoya Protocol’s emphasis on equity is

Table 1
Key UN principles for equity.

Principle	Description
<i>Common Heritage Principle</i> UNCLOS (UN, 1982)	“... the area of the sea-bed and ocean floor and the subsoil thereof, beyond the limits of national jurisdiction, as well as its resources, are the common heritage of mankind; the exploration and exploitation of which shall be carried out for the benefit of mankind as a whole, irrespective of the geographical location of States” (Preamble) “The Area and its resources are the common heritage of mankind” (Article 136) “No State shall claim or exercise sovereignty or sovereign rights over any part of [ABNJ] or its resources, nor shall any State or natural or juridical person appropriate any part thereof. No such claim or exercise of sovereignty or sovereign rights nor such appropriation shall be recognized. All rights in the resources of the Area are vested in mankind as a whole, on whose behalf the Authority shall act ...” (Article 137.1)
<i>Access and Benefits Sharing</i> Nagoya Protocol (SCBD, 2011)	“... the fair and equitable sharing of the benefits arising from the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components” (Article 1)
<i>Common but Differentiated Responsibilities</i> Rio Declaration on the Environment (UN, 1992)	“In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command” (Article 7)
<i>Free, prior, informed consent</i> UNDRIP, 2007	“Indigenous peoples shall not be forcibly removed from their lands or territories. No relocation shall take place without the free, prior and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, where possible, with the option of return.” (Article 10)

clear. ‘Fair and equitable’ is part of the title and referenced 25 times in the 36 articles of the agreement. An Annex to the protocol provides a list of monetary (e.g. up-front payments, royalties, license fees, etc.) and non-monetary benefits (e.g. sharing results of research and development, strengthening capacity for technology transfer, education, joint ownership of intellectual property, etc.). As we will illustrate in section 4, ABS features prominently in on-going ISA and BBNJ treaty negotiations and the concept continues to evolve.

The third principle relevant to distributional equity is *Common But Differentiated Responsibilities* (CBDR). CBDR also dates to 1992 and was articulated in negotiations on the Rio Declaration on the Environment (UN 1992b) and the UN Framework Convention on Climate Change (UN, 1992c). With explicit recognition that developed countries contribute the most to carbon emissions and benefit most from fossil fuel led development, CBDR acknowledges the inequity associated with asking developing countries to bear the same responsibility as developed countries for addressing climate change. It implies a greater responsibility by developed countries to both reduce emissions and support a variety of climate actions in developing countries experiencing negative impacts or seeking alternative energy pathways. Of the principles we describe, CBDR is used less frequently in ocean governance debates. However, as awareness of the role of oceans in climate systems increases, this is likely to change.

3.2. Equity and non-state actors

Non-state actors are also recognized as ‘subjects’ of equity through various UN declarations, for example the *UN Declaration on Human Rights* and others regarding rights of women and children. These declarations are not legally binding, but they do establish norms within international regimes. The *UN Declaration on the Rights of Indigenous Peoples* (UNDRIP (UN, 2007)) is an overarching agreement that “establishes a universal framework of minimum standards for the survival, dignity and well-being of the indigenous peoples of the world.” Unlike UN architecture for equity among nation states that emphasises distributional equity, UNDRIP’s 45 articles refer to all three dimensions of equity and their interlinkages, e.g. in recognizing rights to land, territories and resources; the need to redress past injustices arising from depriving Indigenous Peoples of means of subsistence and development; rights to ‘full and effective’ participation in decision-making and matters that concerns them; and recognition, promotion, and protection of Indigenous culture and identity.

UNDRIP also articulates a fourth principle relevant to equity: ‘free, prior and informed consent’ (FPIC, Table 1). FPIC is specifically about procedural equity, but is based on recognition of Indigenous Peoples. Although FPIC was originally articulated in relation to the issue of

‘relocation’ from indigenous territories (Table 1), it is applied more broadly within the UN to projects or programs that might affect Indigenous Peoples and their territories. Other UN agreements (e.g., International Labour Organization Agreement 169 (ILO, 1989), the CBD) also include provisions related to equity for Indigenous Peoples. Original treaty text in the CBD recognizes the importance of protecting traditional knowledge (Article 8.j) and customary use of biodiversity (Article 10.c), and the Nagoya Protocol has three articles (Articles 5, 7, 16) relating to traditional knowledge, including the need to have prior informed consent (but not ‘free’ prior informed consent, see Marion Suiseeya (2014)) to access it. Although UN agreements and principles always situate Indigenous Peoples and their knowledge in relation to the authority of the state, Indigenous Peoples have arguably received most attention as non-state ‘subjects’ for equity in relation to environmental issues. This is particularly true in ABNJ, where they are arguably the only non-state ‘subjects’ of equity that have received much attention (e.g. Vierros et al., 2020; Tilot et al., 2021; see section 4).

More generally, recognition of and participation by non-state actors in UN decision-making was formalized in 1992, when ‘major groups’⁵ were included in UN Agenda 21 to facilitate ‘inclusive and democratic multilateralism’ and specific UN work programs. Major groups are described as critical partners in UN activities (e.g. to meeting the SDGs and for a ‘whole of society’ approach) and their establishment advances both recognition and procedural equity. However, although delegates from major groups can provide advice on and input into formal decision-making (e.g. Witter et al., 2015), they do not participate formally in voting or in consensus-based decision-making. During negotiations, any text suggested by major groups needs to be sponsored by a state to be considered. Further, the need to comply with UN rules (formal and informal) can serve to discipline activities of member organizations within a designated group (Corson et al., 2015). Thus, although major groups provide access by non-state actors to UN processes, and enhance both recognition and procedural equity, agency remains constrained by wider UN architecture.

⁵ The original groups recognized were Women, Children and Youth, Indigenous Peoples, Non-Governmental Organizations, Local Authorities, Workers and Trade Unions, Business and Industry, Scientific and Technological Community, and Farmers. The list has been expanded to include Older Persons, Local Communities, Migrants, Philanthropies, Education, Persons with Disabilities, and Voluntary Groups.

Although some major groups, like Indigenous Peoples or women,⁶ are considered ‘subjects’ of equity, other major groups participate in governance as facilitators or as collaborators with the UN and its member states. For example, scientists, often in collaboration with UN agencies, are key actors shaping our understanding of ocean resources (Campbell et al., 2016). Their role will be amplified during the Ocean Decade. UNCLOS recognized environmental NGOs in the 1980s, a decade before the major groups were formed in the UN, and NGOs have had ‘unparalleled’ opportunities for influence in oceans governance (Parmentier, 2012), including in promoting particular forms of ocean governance (e.g. MPAs) (Gray, 2010). NGOs have worked together, notably in the High Seas Alliance, to leverage their influence on ABNJ governance. Scientists and environmental NGOs often have well aligned goals and they collaborate with states in more formal ways. For example, NGO representatives and scientists sometimes serve as formal members of national delegations at UN meetings (Gruby and Campbell, 2013), and they have played an important role in providing technical support and continuity in BBNJ treaty negotiations (Blasiak et al., 2016). ‘Supportive’ states play important roles in promoting proposals made by NGOs and scientists, both in their formal interventions during negotiations and in broader work programs (Campbell et al., 2013). Philanthropies often provide financial support to NGOs and scientists, and philanthropic investment in oceans has more than doubled over the last decade (Wabnitz and Blasiak, 2019; Gruby et al., 2021). Although the agency of these actors is both based on and extends recognition and participation beyond nation states, many of the scientists, NGOs, and philanthropies active in UN ocean governance originate in developed countries. Civil society organizations from the global South and/or not focused on environmental issues are less visible in ocean governance, particularly in ABNJ (Campbell et al., 2016). Thus, formal and informal cooperation with the UN and its member states supports procedural equity for some non-state actors, like scientists and NGOs, but can also exacerbate inequities between non-state actors in global North and South.

Business and industry are a recognized major group, but they are also present in oceans as the dominant resource users and influence ocean governance through their extractive and other activities. Business representatives are often part of, or have their interests well represented on, national delegations to UN negotiations. Private sector influence in the UN was evident in the original Rio Earth Summit (Chatterjee and Finger, 1994) and continues through events like the Corporate Sustainability Forum (Wilshusen and MacDonald, 2017). In fisheries, Havice and Campling (2010, 2017) have detailed the complex ways in which the interests of the fishing industry are represented in UN Regional Fisheries Management Organizations. In the ISA, representatives of the largest investor states form one of the five voting groups (chambers) on the ISA Council and the 1994 Implementing Agreement included provisions to protect the interests of ‘pioneer investors’ (Zalik, 2018; Collins and French, 2020). More generally, the private sector is positioned as critical to oceans governance by groups like the World Ocean Council, an ‘ocean industry leadership alliance’, but also by UN agencies concerned with reducing “the regulatory, financial, and even scientific burden of ocean governance shouldered by state and UN agencies” (Silver et al., 2015, 146) through innovations like public-private partnerships. Thus, while major groups recognize a variety of non-state actors, business and

industry are already powerful actors with considerable agency in ABNJ governance. As we will discuss in section 5, the current ocean economy, supported by existing UN architecture, presents significant challenges to realizing a more equitable one.

4. Mobilizing equity in negotiations for seabed mining and conservation and sustainable use of marine biodiversity beyond national jurisdiction

Existing UN architecture is mobilized by a variety of state and non-state actors in on-going ISA and BBNJ treaty negotiations. Table 2 situates the two sets of negotiations within UNCLOS and highlights a key difference, namely that the architecture for UN governance of seabed mining is long standing and institutionalized versus emerging for marine biodiversity. Seabed mining was a central concern in final UNCLOS negotiations and Part XI describes the Area, principles for its governance and development, and the International Seabed Authority. Part XI has been operationalized via the 1994 Implementing Agreement and the ISA has formalized a Mining Code related to exploration. Current negotiations are to expand the Mining Code to include rules for exploitation. In contrast, marine biodiversity has been identified as a ‘gap’ in UNCLOS, as the agreement was negotiated prior to current scientific and commercial understanding of the scope and value of marine biodiversity, including marine genetic resources. Thus, negotiations for a new implementing agreement are guided by general commitments within UNCLOS (e.g. for protection of the marine environment) and the mandate described in UN Resolution 72/249, rather than pre-existing UNCLOS text specific to marine biodiversity. Table 2 summarizes the negotiating context for both issues.

Both sets of negotiations are complex; we do not intend a comprehensive overview or analysis of them here. Rather, based on our review and analysis of existing UN architecture (section 3), observations of negotiations, and reading of related literature, we identify four themes that characterize possibilities for and constraints on equity via existing architecture and agency by different actors: 1. Limiting and extending the application of existing principles; 2. Broadening understanding of existing principles; 3. Increasing participation by state and non-state actors; 4. Extending recognition to non-human actors.

4.1. Limiting and extending the application of existing principles

Despite recognized limits on existing principles for increasing distributional equity, their importance and discursive power is reflected in efforts to limit or extend their application in ongoing negotiations. Engagement with ABS and CHP provide good examples of this. In BBNJ negotiations, all parties recognize ABS as critical to an equitable regime and the terms of ABS are a key point of negotiations. However, developing countries invoke ABS as outlined in the Nagoya Protocol as a model (to be improved), while developed countries resist, arguing that the Nagoya Protocol applies only within state territory (as does the CBD more generally). Similarly, developing countries seek reference to CHP in the text, while developed countries resist, arguing CHP as originally articulated in UNCLOS is only applicable to non-living resources (minerals) in the Area (Tiller et al., 2020; Vadrot et al., 2021). Despite the ‘watering down’ of CHP via the 1994 Implementing Agreement, its ‘novel’, ‘solidarist’ or even ‘utopian’ intent (Collins and French, 2020) as articulated in UNCLOS is still mobilized and resisted in BBNJ treaty negotiations. There is a chance (however slim) that a BBNJ treaty could adopt CHP in a manner closer to its original intent to support distributional equity among states.

In both ISA and BBNJ treaty negotiations, the definitions and applicability of existing UN principles outside of their original contexts is part of the debate (Blasiak et al., 2016; Mendenhall et al., 2019). This phenomenon is not restricted to ABNJ. In on-going negotiations in the CBD for a 2020–2030 strategic plan, developing countries invoke CBDR to pressure for increased financial contributions by developed countries

⁶ Beyond Indigenous Peoples, women and their status has been an interest in the UN almost since its inception, and the role of women was recognized in the original articulation of sustainable development (WCED, 1987). In some areas of ocean governance, gender based equity concerns are prominent. For example, the UN Food and Agricultural Organization’s Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines, FAO, 2014) identify gender equity and equality among its key components. Although the Guidelines aim to enhance gender equity in SSF, their applicability in ABNJ remains a question.

Table 2

Context of on-going negotiations in the ISA for exploitation of seabed minerals and in the UN Intergovernmental Conference for a BBNJ treaty. Shading indicates what is currently being negotiated.

Issue:	Seabed mining	Conservation and sustainable use of marine biodiversity
Convention:	UNCLOS (UN, 1982)	
Implementing Agreement:	Implementing Agreement for Part XI of UNCLOS (UN, 1994)	Negotiation on-going for: Implementing Agreement for the Conservation and Sustainable Use of Marine Biodiversity Beyond National Jurisdiction
Implementing Authority:	International Seabed Authority (ISA)	TBD
Rules, regulations:	Mining code, Negotiations on-going for: Mining code, exploitation	TBD
Status of negotiations:	Began in 2011, prioritized by ISA council in 2014, and focus of ISA work since. Plans for approval and adoption of regulations by 2020 were delayed due to COVID, and a revised 'roadmap' for completion identifies July 2023 as the new deadline (ISBA/26/C/44).	Began in 2017, on advice of Preparatory Committee (established in June 2015 by UNGA A/Res/69/292), following a decade long 'informal' process. Negotiations were to be completed in four sessions. The first three were completed (09/18, 03/19, 08/19) as scheduled, and the fourth session was delayed due to COVID (03/22). The fourth session did not produce a final agreement, and a fifth session has been added (08/22).
Negotiation authority:	International Seabed Authority	United Nations Intergovernmental Conference on Marine Biodiversity Beyond National Jurisdiction
Negotiation mandate:	"... to balance economic needs with rigorous environmental protection ... The regime to be established also requires a portion of the financial rewards and other economic benefits from mining to be paid to the ISA to then be shared according to 'equitable sharing criteria.'"(https://www.isa.org.jm/mining-code)	"... to elaborate the text of an international legally binding instrument under the United Nations Convention on the Law of the Sea ... [addressing] the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, in particular, together and as a whole, marine genetic resources, including questions on the sharing of benefits, measures such as area-based management tools, including marine protected areas, environmental impact assessments and capacity-building and the transfer of marine technology." (UNGA A/Res/72/249)

to biodiversity conservation. The extent to which principles like the CHP, ABS, and CBDR deliver distributional equity in practice may be questionable, but they clearly serve a negotiating purpose for developing countries. Developing countries are simultaneously UN member states that participate in defining these principles *and* the 'subjects' the principles are supposed to benefit. As member states, developing countries invoke precedent, the need to use multilaterally agreed upon terminology, and the inefficiency of negotiating new terms. As subjects, they invoke these principles to 'signal' long standing concern for (as yet unrealized) distributional equity.

4.2. Broadening understanding of existing principles

Negotiators work to limit and expand the application of principles to different negotiating contexts, and to limit or expand the meaning of the principles themselves. ABS provides a good example of this. In original UNCLOS negotiations, the emphasis was on access to physical space and mineral resources, by both the UN owned and operated Enterprise (Articles 153, 170) and by developing countries. Economic benefits would thus result from direct participation in the industry and the redistribution of benefits by the UN. While both 'access' and 'benefits' were discussed, the relationship was singular and linear, with access leading to benefits, facilitated by technology transfer (Article 144). Ideas about access and benefits sharing, and the role of technology transfer within, have since expanded and combined into ABS. The linear path - physical access as the means to secure benefits - is no longer the only one; access is now *to benefits derived* from exploitation (e.g. through upfront payments, royalties, license fees, etc.). Benefits are also non-monetary, including technology transfer, data sharing, infrastructure development, education, and other forms of capacity building (Harden-Davies and Gjerde, 2019). Given that technological capacity is critical for accessing the resources of the ABNJ, sharing this technology could contribute to distributional equity (Österblom et al., 2020), but the main point here is that these non-monetary supports are seen as benefits in and of themselves, not just a means of gaining access to physical resources and associated monetary benefits from exploitation. This is particularly true of technology transfer, now paired with capacity building (a term absent in UNCLOS and the 1994 Implementing Agreement).

Most recently in BBNJ treaty negotiations, and also those for a strategic plan in the CBD, questions of ABS have been reshaped further

via efforts to distinguish between biodiversity as a 'physical' resource that can be exploited directly versus the informational resources derived from biodiversity, i.e. genetic material and the DNA and RNA sequences that can be stored digitally and then used to "to synthesize proteins, create molecular processes and innovation, and modify or even create organisms" (Blasiak et al., 2020). In the case of the CBD, when the Nagoya Protocol was agreed to a decade ago, it did not adequately account for these informational resources. Developing countries seeking to subject informational resources to ABS provisions promote an agreement on Digitally Sequenced Information prior to or as part of the CBD strategic plan. In BBNJ treaty negotiations, defining what ABS applies to - physical and/or informational resources - is among the most contentious issues (Tiller et al., 2020, Vadrot et al., 2021). Developed countries generally resist the extension of ABS to informational resources. So do some members of the scientific community, concerned that it would work against open access to information; open access is itself proposed as a 'non-monetary benefit' that will enhance equity. However, open access to the informational resources, in absence of related capacity building and technology transfer, is likely to exacerbate inequities by benefiting only those who already have the tools to make use of informational resources (Blasiak et al., 2020).

With little enthusiasm for significant sharing of monetary benefits among developed countries, strengthening legal obligations for developed countries to engage in technology transfer and capacity building and has been proposed as a means to democratize knowledge and abate persistent, inequitable power dynamics in oceans governance (Harden-Davies, 2017; Neira, 2018; Collins et al., 2019, 2020; Österblom et al., 2020; Willaert, 2020). However, without monetary benefits sharing, it is hard to imagine that technology transfer and capacity building alone will address Pardo's original concern for "the huge disparity in wealth that would occur if the area were managed in ways that allowed those with advanced technology to gain exclusive access." More broadly, although 'non-monetary', a key purpose of technology transfer and capacity building among many proponents is to enhance the ability of developing countries to participate in the extractive ocean economy. This narrow focus does not fully recognize alternative values, including spiritual and cultural connections to oceans (Martin et al., 2016).

4.3. Increasing participation by state and non-state actors

While procedural innovations associated with UNCLOS negotiations may have been intended to increase developing country participation and influence, the capacity of many developing countries to participate in multiple, simultaneous international negotiations is limited. Developing countries and small island states are significantly underrepresented in BBNJ treaty negotiations (Blasiak et al., 2016), and several authors suggest increased funding from developed states to support developing country participation in ISA and BBNJ negotiations would improve procedural equity among states (Sparks and Silva, 2019; Österblom et al., 2020). However, funding for participation may not be enough. If developing countries feel they are unlikely to benefit from resulting agreements, they may find it difficult to prioritize participation, given other demands on time and resources. In the ISA, incentives for developing country participation include the value of mineral resources, projected increases in demand, and that some developing countries, primarily Pacific island nations, have seabed minerals within their EEZs. Incentives are less clear with marine biodiversity. Although theoretically available to all, the value of marine biodiversity remains unclear and mostly speculative (Tiller et al., 2020).

To increase capacity, states can and do coordinate with one another and with non-state actors (e.g. Gruby and Campbell, 2013). For example, a 2021 collaboration among state and non-state actors (including environmental NGOs and large multinational firms) calling for a moratorium on deep sea mining until 2030 gained momentum and was formally proposed by a few member states at the ISA's 26th session in December 2021. How this plays out in the ISA remains to be seen; earlier in 2021, the Pacific island nation of Nauru triggered a rule of the 1994 Implementing Agreement (Annex, sect 1, para 15) that requires the ISA provide regulations for exploitation within two years of a request by a party seeking approval of a work plan for exploitation. Regardless of outcome, we note that the moratorium call is based primarily on concerns about environmental impacts of mining rather than equity among states or extended to non-state actors.

UN governance that generally privileges the nation state is exacerbated in ABNJ, where the scale and materiality of oceans makes it difficult to see people (Campbell et al., 2016) and obscures the variety of interests within nation states (Sparks and Sliva, 2019). However, recent calls for the increased role of Indigenous Peoples in ISA and BBNJ treaty negotiations illustrates how broader UN architecture is mobilized to promote procedural and recognitional equity for some non-state actors. A number of scholars and activists have argued for including Indigenous Peoples in on-going UN negotiations in ISA and BBNJ, based both on requirements of UNDRIP and on Indigenous Peoples' "intimate, dynamic and long-term knowledge of the environment" (Vierros et al., 2020, 2), including of ABNJ (Vierros et al., 2020; Tilot et al., 2021). Tilot et al. (2021, 21) argue that Indigenous histories of collective ownership, with duties to both protect the environment and equitably distribute benefits, are particularly relevant for CHP in ABNJ. Recognizing cultural and social values attached to marine resources, including the seabed, is critical for respecting Indigenous identity that is "embedded in the ocean" (Tilot et al., 2021, 6) and holistic relationships with nature. However, we note that some Indigenous scholars (e.g. Coulthard 2007, 2014) argue that recognition of Indigenous Peoples by states (e.g. via UN architecture) reproduces misrecognition, through "recognition from above" where the state or international organizations are the arbiters of just and unjust claims for recognition from subordinate groups (Singh, 2014). Gray (2018) has documented specific concerns among some Indigenous Peoples about the extension of UN authority to the BBNJ and the appropriation of their knowledge of cultural connections to oceans towards that end. Overall, the prospects for procedural and recognitional equity for Indigenous Peoples via the UN – for oceans, but much more generally – are highly contested.

4.4. Extending recognition to non-human actors

Recognitional equity is intricately linked to procedural equity, as acknowledging and accounting for "distinct identities, histories, values, and interests of different actors" (Friedman et al., 2018, 2) requires engagement with diverse stakeholders. Arguably, recognitional equity may be the most difficult piece of the equity triangle to achieve in ABNJ, since it will require the greatest deviation from a status quo that centers the nation state and privileges Western scientific and policy norms. Even when diverse stakeholders are recognized, accounting for their interests, identities, and knowledge in meaningful ways to enhance procedural and/or distributional equity – e.g. through co-design and co-production of knowledge and policy – will require breaking some of those norms (Harden-Davies et al., 2020; Alexander et al., 2021; Tilot et al., 2021).

Calls to recognize non-human actors as 'subjects' of equity are exemplary of how recognitional equity challenges the status quo, but some authors have suggested alternative frameworks or principles that could be integrated in BBNJ treaty negotiations to facilitate this. For example, Ridings (2018) suggests *environmental stewardship* as a guiding framework for international policy-making in ABNJ, one that would bridge the gap in priorities between the CHP and FOS. Harden-Davies et al. (2020) argue for integration of *Rights of Nature* laws that grant legal standing to elements of nature, with appointed advocates to formally represent 'nature' within UN procedures. The authors suggest that the emphasis on the connectivity between human and natural environments in *Rights of Nature* laws is not completely at odds with some aspects of UN governance, such as the use of ecosystem-based management approaches (Harden-Davies et al., 2020). Similarly, Claudet et al. (2021, 3) propose conceptualizing the ocean as a "rights-bearing entity rather than as a resource to be exploited" and a "new operating logic whereby the entirety of ABNJ would become a de facto conserved area." Decisions on all use of ABNJ would be made collectively, with attention to equity among states but also for the ocean and its resources. However, extending equity to non-human subjects has the potential to exacerbate inequities among states and people, for example, if *Rights of Nature* laws lead to increased expansion of marine protected areas, without consideration of their human impacts, or if elements of nature prioritized by appointed advocates reflect only Western values. We note again that momentum for the moratorium on seabed mining described above has been driven primarily by concern for environmental impacts, rather than equity among states or extended to non-state human actors.

5. Prospects for equity in ABNJ?

Having described the constraints on and potential for supporting equity via UN architecture, we turn now to the hard fact that equity has not been achieved via this architecture to date, and that the ocean economy – particularly in ABNJ – has primarily benefited wealthy nations and firms. In high seas fisheries, higher income countries account for 97% of trackable fishing activity (McCauley et al., 2018). UN Regional Fisheries Management Organizations have relied on historical catch levels as the primary basis for allocating quota, as opposed to equitable distribution (Seto et al., 2021), and demonstrate the more general tendency for existing oceans governance to "uphold inequities from the ocean economy including historical and colonial legacies, lack of access and allocation of resources, [and] insecure territorial rights and tenure rights" (Österblom et al., 2020, 9). Recent analyses of the ocean economy suggest high levels of industry consolidation in multiple sectors (Österblom et al., 2020; Carmine et al., 2020; Viridin et al., 2021), with a relatively small number of firms capturing most economic benefits (although further work is needed, Havice et al., 2021). For both marine biodiversity and seabed minerals, prospects for distributional equity in their use seem slim; a single chemical manufacturer accounts for 47% of marine genetic resource patent applications (Blasiak et al., 2018), and in seabed mining a handful of firms headquartered in developed countries stand to benefit most due to their control of

proprietary knowledge (Zalik, 2018, 354). In the ISA, protections for this knowledge and other interests of ‘pioneer investors’ was critical to developed country support for the 1994 Implementing Agreement. That current governance of ABNJ is inequitable supports both calls by Ranaganathan (2022) to ‘unmake’ rather than ‘fix’ UNCLOS, and skepticism by Alexander et al. (2021) that the system responsible for current inequities is capable of mediating equity.

But deciding to ‘unmake’ or ‘fix’ existing governance architecture requires recognizing and understanding its extent. As stated in the introduction, part of our motivation in writing this is a concern with descriptions of oceans, and particularly ABNJ, as a last planetary frontier. ‘Frontier’ is invoked in a number of contexts: to highlight the potential for capital expansion into the oceans; to advocate for new governance institutions; to decry rampant illegal activities; to promote ocean conservation. However, from an equity perspective, the language of frontiers is problematic for several interrelated reasons. First, the ocean frontier is often invoked by those concerned with inadequate or absent regulation in ABNJ, and ABNJ is literally described as ‘the Wild West’ (Google ‘wild west and high seas’ and choose among the many headlines from news services, NGOs, and scientific articles). While there are governance gaps and enforcement challenges at sea, this characterization obscures existing architecture, some components of which might support equity. Campling and Colás (2018) argue that the very existence of the ISA is an “important hurdle to sovereign claims and private appropriation” of seabed minerals. Second, and more generally, the concept of a ‘frontier’ is rooted in Western worldviews that separate ‘wild’ or ‘natural’ spaces from ‘human’ or ‘social’ spaces. This both obscures alternative worldviews based on connectivity and reciprocity and reinforces an understanding of ocean spaces as ‘unpeopled.’ Third, historically, frontiers are places where equity and justice have been absent. “In western historiography, the frontier has been associated with terrestrial projects of violent conquest and colonialism, racism, imperialism, and resource fuelled global capitalism, implying a boundary to be breached, controlled and civilised” (Havice and Zalik, 2018, 220). Fourth, frontiers are ultimately places to be settled and resources claimed, be that land for settlement and agricultural expansion, or forests for lumber and other resources (Tsing, 2005). In the case of ABNJ, countries and firms with the power, technology, and capacity to extract ocean resources will be at the forefront of ‘taming’, claiming, and enclosing the frontier. Overall, the language of frontiers leaves little room to imagine oceans as spaces shaped by existing UN architecture, or where that architecture might be mobilized or expanded to support recognition, procedural, or distributional equity. Although it is not clear how efforts to bring Indigenous Peoples into ISA and BBNJ treaty negotiations will ultimately fare (and efforts to do so are contested), UN architecture has been mobilized to make Indigenous Peoples and their interests visible. Similarly, while CHP is not the equity principle it was originally intended to be, having been ‘watered down’ via the 1994 Implementing Agreement, it is mobilized by developing countries and some non-state actors as a check on FOS. However unlikely it is that CHP is reaffirmed and strengthened in a BBNJ treaty, imagining this as a possibility seems a necessary step in any attempt to do so.

How we construct oceans – e.g. as an unpeopled frontier – matters because these constructions create “the cultural and political environment in which certain interventions are deemed desirable and others deemed unattainable” (Steinberg, 2008, 2092). Alternative constructions exist and ‘people’ oceans in various ways, and researchers have been working to reveal these, to make the ‘who’ more visible (e.g. Allison et al., 2020). For example, Halpern et al. (2015) have mapped a cumulative footprint of human impact throughout the oceans, extending to what were presumed to be remote and ‘pristine’ spaces. Organizations like Global Fishing Watch are working to illuminate the presence and movement of global fishing fleets throughout the oceans, in real time (Kroodsmma et al., 2018), and some of those fleets have been ‘peopled’ with high profile media coverage of labor abuses and ‘sea-slavery’ (Urbina, 2015). While these examples highlight human impacts, others

highlight innovation. For example, oceans have long been sites of ‘social transformation’, where the foundations of international law, the Common Heritage principle, common property management, and co-management were developed (Steinberg, 2008). Pacific island cultures are recognized as providing an alternative non-Western understanding of oceans and human relations to them, with oceanic societies “conceived as a vast kinship network, with continual interactions between minerals, plants and animals,” and where the relations among these is the basis of society (Tilot et al., 2021, 8). All of these constructions, whether highlighting positive or negative human connections to oceans, make people visible and offer alternative visions of how to conceptualize actors and their agency in ocean spaces. And ‘seeing’ people in ABNJ will be a prerequisite to any attempts to improve equity among states and to extend equity concerns beyond states, whether through existing or modified UN architecture, or outside of it.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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