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Advancing Social Equity in and Through Marine Conservation

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Substantial efforts and investments are being made to increase the scale and improve the effectiveness of marine conservation globally. Though it is mandated by international law and central to conservation policy, less attention has been given to how to operationalize social equity in and through the pursuit of marine conservation. In this article, we aim to bring greater attention to this topic through reviewing how social equity can be better integrated in marine conservation policy and practice. Advancing social equity in marine conservation requires directing attention to: recognition through acknowledgment and respect for diverse peoples and perspectives; fair distribution of impacts through maximizing benefits and minimizing burdens; procedures through fostering participation in decision-making and good governance; management through championing and supporting local involvement and leadership; the environment through ensuring the efficacy of conservation actions and adequacy of management to ensure benefits to nature and people; and the structural barriers to and institutional roots of inequity in conservation. We then discuss the role of various conservation organizations in advancing social equity in marine conservation and identify the capacities these organizations need to build. We urge the marine conservation community, including governments, non-governmental organizations and donors, to commit to the pursuit of socially equitable conservation.

Keywords: ocean equity, social equity, marine conservation, marine protected areas, marine policy, ocean governance, environmental justice

INTRODUCTION

Considering social equity in conservation efforts is essential for both ethical and instrumental reasons. While there is a diversity of conservation initiatives, with a range of positive and negative impacts on people, we acknowledge the deeply problematic roots and history of Western and colonial visions of conservation. Many past conservation models and practices have privileged Western ways of thinking and doing, have envisioned humans as separate from nature, have been shaped by colonial mindsets, and have perpetuated racism (Sandlos, 2007; Dowie, 2009; Griffin et al., 2019; Musavengane and Leonard, 2019). The result too often was poorly designed conservation initiatives that were planned and implemented in a top-down manner, that inadequately considered local perspectives and needs, and that separated Indigenous Peoples and local communities from resources and territories that they depend on for culture and survival (Dowie, 2009; Stevens, 2014; Griffin et al., 2019; Muhl and Sowman, 2020). Such conservation approaches often produced a number of negative social consequences – including displacement, violence, disempowerment, human rights abuses, widening of economic inequities, and increased poverty (Brockington and Igoe, 2006; West and Brockington, 2006; West et al., 2006; Agrawal and Redford, 2009; Oldekop et al., 2015). Unfortunately, some of these problems persist in conservation initiatives promoted by both international organizations and national governments (Cross, 2016; Fletcher et al., 2016; Bennett et al., 2017b; Armitage et al., 2020). Insufficient attention to social equity in conservation not only produces social harms (Schreckenberg et al., 2016; Bennett et al., 2017b), it can also undermine local support thereby hindering the effectiveness of conservation (Ferse et al., 2010; Pascual et al., 2014; Bennett et al., 2019b). Furthermore, long-term sustainability and effectiveness can be increased through creating strong local partnerships, integrating traditional knowledge and local management practices, recognizing and championing local leadership, and protecting Indigenous rights and tenure (Garnett et al., 2018; Burt et al., 2020).

Prompted by evidence of wrong-doing and pressured by many civil society and Indigenous groups, progress has been made over the past few decades to address past wrongs and reorient conservation practices to be more collaborative, people-centered, and locally led (Greiber et al., 2009; Stevens, 2014; Charles et al., 2016; Armitage et al., 2020). Such advancements have included, for example, recognition of community-based approaches to conservation (Berkes, 2007; Govan et al., 2009; ICCA, 2013; Jupiter et al., 2014), consideration of social impacts on livelihoods and well-being (de Lange et al., 2016; Ban et al., 2019a; Wallace et al., 2020), recognition of the rights and roles of Indigenous Peoples in conservation (Stevens, 2014; Ban and Frid, 2018; Porten et al., 2019), promotion of gender equity (Leisher et al., 2016; Kleiber et al., 2018; Lau, 2020; Mangubhai and Lawless, 2021), and greater attention to participation and power sharing in conservation governance (Borrini-Feyerabend et al., 2007; Armitage et al., 2012; Jupiter, 2017; Eger and Doberstein, 2019). Global conservation policies – such as the Convention on Biological Diversity Aichi Biodiversity Targets and draft Post-2020 Biodiversity Framework – have also highlighted the importance of social considerations in conservation, such as benefit sharing, equitable management, Indigenous rights, livelihoods, and participation in decision-making (CBD, 2010, 2020).

There have been many recent treaties and global commitments to increase the spatial coverage of conservation around the globe (CBD, 2010; United Nations, 2015; Wilson, 2016; Pimm et al., 2018). While we recognize that there is an urgent need to scale up conservation efforts to arrest global declines in biodiversity (IPBES, 2019; Duarte et al., 2020), there is also a danger that the push to rapidly achieve spatial targets, in the absence of social equity considerations, may lead to the perpetuation of exclusionary conservation models and the undermining of local rights (Büscher et al., 2017; Schleicher et al., 2019). Despite growing recognition of the need for socially equitable conservation, in both policy and practice, greater attention is still given to what, how much, and where to protect, rather than how to go about protecting biodiversity and who should be included in the process (Hagerman and Pelai, 2016; Campbell and Gray, 2019). One reason for this is that many actors involved in marine conservation – including governments, non-governmental organizations, advocates and funders – often lack a clear understanding of what social equity means and how to integrate it into conservation practices. This represents a barrier to more socially progressive, equitable and effective conservation. Through this article, we seek to advance the field with a specific focus on how the marine conservation community can advance social equity in and through marine conservation.

SOCIAL EQUITY IN MARINE CONSERVATION

In general terms, social equity is concerned with fairness and justice in how people are treated or public policies are formulated and implemented. The current thinking on social equity in conservation draws from a long history of thinking and scholarship on environmental justice (Agyeman et al., 2003; Schlosberg, 2009; Walker, 2012; Ulloa, 2017; Engen et al., 2021), social justice (Fraser, 1998; Miller, 1999; Sikor et al., 2014; Bennett et al., 2019a), and social equity (McDermott et al., 2013; Pascual et al., 2014; Schreckenberg et al., 2016; Zafra-Calvo et al., 2017; Dawson et al., 2018; Friedman et al., 2018). Frameworks specifically focused on social equity in conservation (McDermott et al., 2013; Pascual et al., 2014; Schreckenberg et al., 2016; Zafra-Calvo et al., 2017; Dawson et al., 2018; Friedman et al., 2018) have defined four aspects of equity that needed to be considered in conservation interventions: recognitional, procedural, distributional, and contextual equity (see definitions in **Table 1**). Here, we extend that thinking to provide practical guidance that is applicable to marine conservation policy and practice.

In developing this guidance, our author team, which includes a broad group of both academics and practitioners with experience working in marine conservation around the world, felt that past applications of these four aspects of social equity to conservation had several shortcomings that we wanted to address. First, past attention to procedural equity addresses aspects of governance

TABLE 1 | Definitions of the elements of social equity in the context of marine conservation (McDermott et al., 2013; Pascual et al., 2014; Schreckenberg et al., 2016; Zafra-Calvo et al., 2017; Dawson et al., 2018; Bennett et al., 2020).

Elements of social equity	Definition in the context of conservation
Recognition	The acknowledgment and incorporation of the rights, tenure, cultural identities, practices, values, visions, knowledge systems and livelihoods of local groups into conservation governance, planning, and management
Procedures	The inclusion and effective participation of all relevant actors and groups in rule and decision-making for conservation policies and programs, which requires good governance practices such as transparency and accountability
Distribution	The level of fairness in the distribution of benefits and burdens between different groups, including current and future generations, of the outcomes of conservation actions
Management	The extent to which local people are able to participate in, carry out the work of, or be responsible for and have a leadership role in management activities
Environment	The quality of the local environment and nature's contributions to people based on the effectiveness of actions taken to maintain ecological sustainability, health and productivity that people depend on for food security, livelihoods, cultural anchoring, health, and well-being
Contextual or Structural	The surrounding social, economic, and political conditions that influence people's pre-existing status (in terms of wealth, social capital, assets/capabilities, and power), as well as the structures that enable or undermine people's ability to achieve recognitional, procedural, distributional, managerial, and environmental equity in conservation initiatives

such as inclusiveness, participation, transparency, access to justice, accountability, and free, prior and informed consent (McDermott et al., 2013; Pascual et al., 2014; Schreckenberg et al., 2016; Zafra-Calvo et al., 2017). These frameworks, however, have not adequately captured the need for local involvement in or leadership in conservation management. Thus, we suggest there is a need to differentiate governance as the policies, institutions and processes that determine who participates in decisions and how decisions are made from management which is the resources, plans, and actions that result from applied governance (Lockwood, 2010; Bennett and Satterfield, 2018). Second, while the status of the environment is often implied under distributional equity in previous frameworks, few studies focused on equity have measured environmental variables or effectiveness (Friedman et al., 2018). Given the strong links between environmental sustainability and various aspects of wellbeing (e.g., health, food security, and livelihoods), we believe that the quality of the environment, the efficacy of conservation actions, and the effectiveness of management should be more explicit as foundational to social equity (Caillon et al., 2017; Leach et al., 2018; Díaz et al., 2019, 2020). Finally, we feel that the implications of broader contextual or structural factors – including social, economic, and political conditions and conservation frameworks – on the ability to achieve social equity within local conservation initiatives deserves some clarification.

Thus, we build on the prior frameworks to suggest that advancing social equity in marine conservation requires attention to six interrelated equity elements: recognition, procedures, distribution, management, the environment, and contextual or structural factors. Below, we define each element and consider the implications of each for marine conservation (see **Table 1**).

Recognition: Acknowledging and Respecting the Dignity of Diverse Peoples

The idea of recognitional equity suggests that the human dignity of all peoples and the diversity of human experiences and situations needs to be acknowledged by marine conservation actors, as well as respected and integrated into the promotion, planning and management of conservation (Pascual et al., 2014; Martin et al., 2016). Achieving this requires a broad and deep understanding of the social context where conservation occurs. Key considerations related to recognitional equity in conservation include: (a) acknowledgment of stakeholders and rights holders; (b) respect for formal and customary rights and tenure, and historical connections to the local environment; (c) incorporation of diverse cultural institutions, practices, and knowledge systems; (d) integration of worldviews, perspectives and needs of diverse and marginalized groups, including different genders, ethnicities, and classes; (e) affirmation of sovereignty, autonomy, and the right to self-determination; and (f) protection of human and Indigenous rights (IIED, 2016; Schreckenberg et al., 2016; Ban and Frid, 2018; Dawson et al., 2018; Bennett et al., 2020). The tools and methods of applied social science (e.g., stakeholder analysis, values assessment, review of rights, and tenure, etc.) can be useful to help understand these topics (Bennett et al., 2017a), while other topics might only truly be understood through deep engagement with individuals who are embedded in the local context. The latter is the case, for example, with cultural institutions, practices, and knowledge systems (Poe et al., 2014).

Integrating the aforementioned social considerations into planning or management can help ensure that conservation initiatives are appropriate and match to the local socio-cultural context (Epstein et al., 2015; Guerrero et al., 2015). For example, incorporating the views and needs of diverse stakeholder and cultural groups will require that representatives of government agencies and conservation organizations are mindful of which types of conservation fit each locale. In some cultural contexts, the idea of Marine Protected Areas (MPAs) or no-take zones may align well with traditional practices such as seasonal or area closures (Johannes, 2002; Ban et al., 2020). In other places where Indigenous worldviews emphasize the interconnections between humans and nature, or where continuation of sustainable use is considered essential to cultural survival, conservation models

such as Locally Managed Marine Areas or "Territories of Life" may be more appropriate than areas where human fishing, hunting, or harvesting activities are fully restricted (Govan et al., 2009; Jupiter et al., 2014). For those engaged in advocating for conservation, affirming sovereignty and autonomy means entering into conservation conversations with humility, respect and an open mind – and recognizing that local governments or Indigenous groups have the right to decide whether to engage and support or to opt out (UNECE, 1998; United Nations, 2007).

Procedures: Fostering Participation and Good Governance

Whether initiatives are large and externally driven or small local protected areas, those who reside in or around marine conservation areas and thus who might be impacted by them (both positively and negatively in the short and long-term) ought to be well informed about the initiative, able to voice their perspectives and concerns, help to envision and plan how conservation occurs, and provide consent prior to implementation (UNECE, 1998; United Nations, 2007; FAO, 2012; Borrini-Feyerabend and Hill, 2015). This is the essence of procedural equity, which can be encapsulated as participation in decision-making and good governance processes during the various stages of marine conservation. Key considerations related to procedural equity include: (a) inclusive and participatory decision-making, (b) local capacity to engage in and lead decision-making processes, (c) transparency of information, decisions, and intentions, (d) free, prior, and informed consent, and (e) accountability mechanisms (Franks and Schreckenberg, 2016; Schreckenberg et al., 2016; Zafra-Calvo et al., 2017; Bennett et al., 2020). These considerations align broadly with the ideals and principles of good governance (Lockwood, 2010; Borrini-Feyerabend and Hill, 2015).

Steps to enable the application of these different norms related to procedural equity will differ by scale and location. In national networks, for example, governments will need to design and create institutions (e.g., laws, policies, rules), structures (e.g., decision-making bodies, formal organizations, networks), and processes (e.g., decision-making, policy creation, negotiation, conflict resolution) that embody and enable equitable participation in marine conservation governance (Lockwood, 2010; Bennett and Satterfield, 2018; IUCN, 2019). For managers at the site level, truly inclusive and participatory decision-making processes will require attention to representation of diverse groups, mindful facilitation of meetings to ensure that all voices are heard and their viewpoints considered, establishing decision-making processes and bodies that are appropriate and reflect local practices, and adequate financial or other support provided to enable local organizations and communities to be able to attend, prepare for (e.g., conduct own analysis, prepare responses), and fully participate in meetings from the beginning of the process (Borrini-Feyerabend et al., 2007; Matsue et al., 2014; Kawaka et al., 2017). Tick box attendance should not be used to legitimize decisions that local stakeholders, especially women and marginalized groups, do not agree with. True procedural equity may necessitate moving beyond including local people in government driven decision-making processes toward more collaborative planning processes or conservation governance processes that are established and led by local or Indigenous communities (Berkes, 2007; Artelle et al., 2019; Jonas et al., 2021). Re-shifting the balance of power back toward Indigenous Peoples and local communities will require sustained financing, for example, to augment local capacity for participation in and navigation of policy processes or to support Indigenous-led marine planning processes and conservation initiatives. Employing transparency in communications, ensuring free, prior and informed consent, and establishing accountability mechanisms are foundational to effective participation (Lockwood, 2010; Borrini-Feyerabend and Hill, 2015; Bennett and Satterfield, 2018).

Distribution: Maximizing Benefits and Minimizing Burdens for Local Populations

The lives and well-being of individuals, groups and communities who depend on local marine resources will inevitably be impacted by the implementation and ongoing management of marine conservation initiatives. These impacts can include a variety of positive or negative outcomes, across different aspects of well-being (e.g., economic, social, cultural, political, health, and physical assets), which may differ based on proximity, by sub-groups and over short- and long-time scales (Mascia et al., 2010; Ban et al., 2019a; Gill et al., 2019; Rasheed, 2020). Over longer time scales, benefits to local populations may accrue from the recovery of ecosystems or fisheries; however, in the short term resource users may lose access to the resource (Guidetti and Claudet, 2010; Edgar et al., 2014; Ovando et al., 2016). While a recent review shows that most MPAs lead to benefits for human well-being (Ban et al., 2019a), other analyses suggest that many of the burdens of conservation fall on local communities who may already be politically or economically marginalized (Kamat, 2018; Sowman and Sunde, 2018). As it is unfair to place the burden of marine conservation on local populations, it is important to understand, mitigate, and manage the social impacts of conservation in such a way that it reduces negative impacts and maximizes benefits (Kaplan-Hallam and Bennett, 2018). Key considerations related to distributional equity include: (a) the distribution of costs and benefits in planning and management, (b) actions to reduce and manage negative impacts, and (c) cultivating opportunities to increase local benefits for improving well-being (Pascual et al., 2014; Schreckenberg et al., 2016; Zafra-Calvo et al., 2017; Bennett et al., 2020; Rasheed, 2020).

A key moment when distributional equity should be considered is during the planning of networks of marine conservation initiatives or the placement of zones within individual MPAs for strict protection or for different uses and/or user groups (Halpern et al., 2013; Kockel et al., 2019). While past distributional analysis has tended to focus on economic aspects, marine conservation planning needs to do a better job of incorporating other factors such as Indigenous territories and rights, important cultural areas and practices, women's

livelihoods, and subsistence access rights (Ban et al., 2013; Gee et al., 2017). For example, during MPA planning in Raja Ampat, socioeconomic criteria and data were explicitly used to zone MPAs, to ensure the recognition of community use and governance of resources, maximize equity and access to traditional fishing grounds, and better support long-term food security and livelihoods of local communities (Mangubhai et al., 2015).

Actions that might be taken during implementation and ongoing management to avoid or reduce potential negative social impacts include examining how different planning or management activities might impact livelihoods or well-being (Vanclay, 2002; Kaplan-Hallam and Bennett, 2018), creating networks that combine fully protected areas with zones that are important for subsistence activities (Mangubhai et al., 2015), or the implementation of compensation mechanisms such as payments for ecosystem services or livelihood alternatives for lost opportunities or access to resources (Rakotomahazo et al., 2019; Mangubhai et al., 2020). The involvement of local communities in examining impacts, considering trade-offs, and making decisions can help to ensure these various activities and mechanisms are designed in a manner that is more equitable and socially acceptable to constituents (Abunge et al., 2013; Gurney et al., 2021). Active monitoring and evaluation of different aspects of human well-being, including economic, social, health, cultural, governance considerations, can enable the adaptive management of social impacts of marine conservation (Kaplan-Hallam and Bennett, 2018; Ban et al., 2019a; Gill et al., 2019). Finally, proactively cultivating opportunities to increase local socio-economic benefits may include developing capacity-building programs, ensuring local hiring in conservation management, implementing local procurement agreements, supporting local social and cultural infrastructure, developing local ownership or benefit-sharing arrangements for tourism operations, and cultivating livelihood programs or local conservation and development projects that fit with local capacities and aspirations (Hughes and Flintan, 2001; Bennett and Dearden, 2014). Those conservation organizations without sufficient expertise in these areas may benefit from partnering with local development-focused organizations or agencies.

Management: Championing and Supporting Local Involvement and Leadership

Local involvement in management is important for legitimacy, local support and the robustness of conservation initiatives (Bodin et al., 2014; Barnes et al., 2019; Bennett et al., 2019b). Equity in management, which in our view goes beyond participation in decision-making or governance processes, refers to the level of inclusion in and leadership of management activities (Elliott et al., 2001; Dalton et al., 2012; Jupiter et al., 2014). Key considerations related to management equity include: (a) the ability of local people to participate or take an active role in management activities; (b) the rights and capacity of local people to be responsible for and take a leadership role in environmental management and conservation; and (c) the establishment of sustainable financial mechanisms to support local participation, capacity, and leadership in conservation management.

Practically, local organizations and communities can benefit from leading, being involved in and taking an active role in management activities such as conducting scientific monitoring, patrolling the area, hosting visitors in their territory, or doing conservation and restoration work. Fostering an active role in management may be as simple as listening to local leaders, stepping back and allowing space for local solutions and practices that already exist – for example, through recognizing, championing, and helping to revitalize customary and pre-existing management activities that contribute to environmental sustainability and supporting the individuals who traditionally carry out this work (Cinner et al., 2012; Mathews and Turner, 2017; Bennett et al., 2018; Ban et al., 2019b). Such is the case in the Gulf Islands National Park Reserve in Canada where Indigenous clam gardens – which have been shown to have greater productivity and biodiversity than regular beaches – are being cultivated within the bounds of the protected area (Augustine and Dearden, 2014).

The creation of formal collaborative management (aka – co-management) arrangements that involve a partnership between governments and local or Indigenous communities can be a productive way to share management authority, responsibility, and leadership (Armitage et al., 2010; Weeks and Jupiter, 2013). For example, in the Bird's Head Seascape (Indonesia) the majority of the MPAs have been established through community customary *adat* declarations and regency laws and reinforced by national laws, with co-management structures that allow communities to actively manage and patrol their MPAs (Mangubhai et al., 2012). Yet true managerial equity in many contexts will require going further than just involving local people to recognizing the inherent rights of local or Indigenous communities and supporting their intrinsic rights and capacity to take leadership in the management of an area. This truly makes sense for Indigenous Peoples whose conception of rights is that it comes with coinciding responsibilities to steward or care for the environment (Friedlander et al., 2013). Furthermore, in Indigenous territories or other areas managed by local communities, priority should be given to the establishment of Indigenous- or community-led marine conservation initiatives. This includes models of marine conservation such as Locally Managed Marine Areas (LMMAs), Indigenous Community and Conserved Areas (ICCAs), Customary Marine Management Areas (CMMAs), or Territories-of-Life (Govan et al., 2009; Vierros et al., 2010; ICCA, 2013; Jupiter et al., 2014; Jonas et al., 2021).

Environment: Ensuring the Efficacy of Conservation Actions and Adequacy of Management to Ensure Benefits to Nature and People

The health and well-being of local populations is related to the sustainability, health and productivity of the environment and nature's contributions to people (Díaz et al., 2018), especially for communities who are dependent on marine resources for

livelihoods, subsistence, or cultural continuity (Poe et al., 2014). Depleting natural capital, biodiversity or ecosystem services is antithetical to human well-being and to intergenerational equity and justice (Leach et al., 2018; Díaz et al., 2019, 2020). In other words, the efficacy and adequacy of environmental management is foundational to social equity. Thus, it is important to ensure that conservation and management actions being promoted and taken are effective – i.e., that they maintain or increase environmental sustainability, health and the productivity of resources – so that they lead to tangible benefits for people of current and future generations. This is the idea underlying environmental equity, which asks that we take into account the following considerations: (a) the potential or actual efficacy of the conservation actions being promoted and taken to protect intended species, habitats or ecosystems; (b) the adequacy and effectiveness of management; and (c) the flow of benefits of environmental conservation to local communities.

Ensuring the sustainability of species, habitats, and resources is critical to ensure tangible benefits to humans. Many habitats and species, particularly those found in deep marine environments are non-renewable on human time scales (Durkin et al., 2017; Montero-Serra et al., 2018). Therefore, management decisions relating to the use of marine habitats and species should carefully consider their implications to future generations and a precautionary approach should be taken. Yet it is unjust for marine conservation initiatives or management actions to be promoted or implemented that have a low likelihood of success – as this might lead to lost opportunities in the present and lead to unmet future expectations of benefits (Barnes et al., 2018). For example, MPAs will not always be the appropriate tool to conserve specific species, ecosystems, or the ecosystem service benefits they provide (Hilborn, 2016; Pendleton et al., 2018). One size fits all solutions should be avoided. In some places, the continuation of traditional and ongoing sustainable use – which combine harvesting and stewardship practices – may be the most effective means to maintain and protect environmental values (Mathews and Turner, 2017; Ban et al., 2019b). There is also a danger of hidden geo-political or capitalist agendas being promoted via spatial conservation (Sand, 2012; De Santo, 2020). Thus, the environmental benefits and effectiveness of potential or ongoing conservation should be evaluated – relative to business-as-usual, no actions, and other alternatives – using the best available scientific evidence as well as local knowledge.

Promoting and implementing conservation actions without ensuring that these initiatives can be effectively and sustainably managed is also problematic as few benefits may flow from resultant "paper parks" (Spalding et al., 2016). Effective management requires, for example, adequate financial resources, sufficient staffing, management plans, evidence-based decision-making, adaptive management, and coordination with activities to manage threats outside of the conservation initiative (Pomeroy et al., 2004; Bennett and Dearden, 2014; Gill et al., 2017). Finally, it is important to ensure that marine conservation is producing tangible environmental benefits for local communities, that they have access to those benefits, and that those benefits are monitored, documented and communicated (Mangubhai et al., 2011; Ahmadia et al., 2015; Ban et al., 2019a). The design of regulations and conservation actions need to consider and respond to the life history and ecology of target species and ecosystems and how resources are utilized by Indigenous Peoples and local communities. This will help ensure sufficient abundance of locally valued and culturally important species to allow for sustained benefits for local people. When communities see positive results, they are more likely to become proponents and want to maintain or expand the system (Rocliffe et al., 2014; White et al., 2014). In the Philippines, for example, a network of more than 1600 community-based marine reserves that are managed, monitored, and enforced by communities have sprung up because local people have seen tangible and ongoing benefits from these initiatives (White et al., 2005, 2014).

Context: Addressing the Contextual Barriers to and Structural Roots of Inequity in Conservation

The roots of inequity often expand beyond the scale of individual conservation initiatives. Thus in order to achieve equitable conservation, the marine conservation community may also need to first or simultaneously address or account for broader contextual or structural factors. Marine conservation efforts occur in locations around the world with varied historical, social, economic and political conditions that can enable or undermine efforts to achieve social equity at a local scale (McDermott et al., 2013). Distributions of wealth, assets, and capabilities, social relations and norms, and power differ by regions, nations, communities, and sub-groups within communities (e.g., different genders or ethnicities), which affects local people's "ability to gain recognition, participate in decision-making, [. . .] lobby for fair distribution" or engage in management in environmental and conservation initiatives (Pascual et al., 2014). Furthermore, conservation organizations and policies can reinforce systems or perpetuate approaches based on colonial mindsets and structural racism and that produce economic marginalization and even human rights abuses (Sowman et al., 2011; Sand, 2012). Three examples of where broader contextual and institutional factors will need to be confronted are in locations where: extreme poverty or food insecurity exists and local people cannot afford to stop harvesting highly degraded resources, national governance structures do not allow or provide adequate financial support for local participation in decision-making, or there is evidence that conservation actions continue to produce human rights abuses. Addressing the contextual barriers and structural roots of inequity in conservation will require attention to: (a) whether existing economic structures leave local populations economically marginalized or without basic needs; (b) the effects of national governance frameworks or political factors on the ability to achieve recognitional, procedural and management equity; and (c) whether conservation organizations or institutions are enabling or undermining equitable conservation.

In many places, the ability to do conservation equitably (or even at all) will require attention to pre-existing socio-economic conditions and inequities prior to or in concert with marine conservation actions (Matsue et al., 2014; Gill et al., 2019). Development activities or redistribution mechanisms

may need to be considered in advance to enable conservation action. For example, when conservation is implemented in highly impoverished rural areas a "conservation basic income" – an unconditional payment sufficient to meet basic needs – may be implemented to support the redistribution of wealth and enable conservation (Fletcher and Büscher, 2020). Other models that have been used are the creation of conservation trust funds, payments for ecosystem service programs, or the redistribution of revenue from tourism activities to support local development activities (Atmodjo et al., 2017; Schuhmann et al., 2019; Mangubhai et al., 2020).

To enable procedural and managerial equity, advocates and NGOs will also often need to advocate for more than on-the-ground implementation of conservation initiatives, but also for changes to overarching national environmental governance as well as the institutions of conservation. This might include, for example, development of national policies and funding structures to support local participation or Indigenous-led conservation. To do this, NGOs need aid agencies and funders to invest in these activities, noting that these types of changes may be slow to come to fruition and thus need sustained financing. However, many donors are reluctant to invest in these larger governance and institutional transformative changes, as there are less guarantees about outcomes within the timeline of grants.

Finally, deep institutional changes may also be needed within conservation-focused organizations to enable equitable conservation. For example, government agencies and large environmental NGOs alike may need to reckon with colonial practices of the past and consider how to decolonize future practices (West, 2006; Dowie, 2009; Musavengane and Leonard, 2019). In general, government agencies, NGOs, and philanthropic organizations should consider how they can share, build, and yield decision-making power to local organizations and communities as part of marine conservation decision-making, management, and grant-making (Borrini-Feyerabend et al., 2007). Yet we are concerned that many of these grant-making processes are becoming less participatory and donor standards more onerous.

DISCUSSION: ORGANIZATIONAL ROLES AND CAPACITIES

The Role of Various Organizations

Each of the different organizations working in marine conservation has a role and responsibility to advance social equity. But, what is each of their roles? Global conservation policy organizations, such as the United Nations Environment Programme, the Convention on Biological Diversity and the International Union for the Conservation of Nature (IUCN), must ensure policy frameworks clearly mandate consideration of social equity and are complemented with guidance for governments and other organizations on how to implement equitable marine conservation initiatives at all scales. Furthermore, national reporting requirements to international bodies should include assessments of social equity, not just the achievement of spatial targets or ecological status (Moreaux et al., 2018; Zafra-Calvo et al., 2019). National governments have a responsibility to create legislative and policy frameworks that mandate equitable conservation governance and co-management practices in government led conservation and that enable locally led conservation initiatives. Adequate financial resources will also be needed from governments to support the implementation of inclusive decision-making, good governance, and Indigenous-led marine conservation initiatives. All government and intergovernmental agencies with conservation mandates need to incorporate social equity considerations at all stages of marine conservation planning and management in the various locations where they work.

Civil society organizations (CSOs) and NGOs should serve as a catalyst for social equity standards and practices through developing and promoting new approaches to conservation, providing technical support and capacity for local implementation, encouraging and putting pressure on governments, and advocating in international fora through fore-fronting the voices of community partners. Those organizations and individuals who are engaged in advocacy for conservation should develop an awareness of the social complexities of the locations where they work through engaging with local communities and civil society organizations. Advocates should also build diverse coalitions and incorporate social equity considerations (e.g., Indigenous rights, good governance, benefit sharing, local management) into their campaigns. Funders have significant power and influence over which conservation approaches and actions are taken. This power comes with a coinciding responsibility to support conservation and philanthropic processes, actions and organizations that are equitable. Conservation funders might articulate their intentions and interests in supporting more equitable approaches, require attention to social considerations in projects and proposals, and communicate to implementing partners the conditions for future funding. However, donors also need to recognize that addressing equity effectively is a long-term investment. Furthermore, this should not be a one way process. For example, funders should employ participatory approaches to strategy development and grantmaking – e.g., through continually engaging local actors to develop and maintain trust and relationships, understand the changing local social context, and identify how to best support local conservation organizations, community groups, and appropriate initiatives.

Finally, the conservation science community has a role to play – through researching and raising awareness about the history of marine conservation, helping to develop, track and communicate metrics related to attributes of different elements of social equity in conservation (see **Table 2**), and working to better integrate environmental considerations, human dimensions considerations and non-Western knowledge systems into future marine conservation. A significant barrier is that many of those working in conservation have traditionally come from the natural sciences, rather than social sciences, and consequently concepts related to social equity and the broader human dimensions are not well understood. Indigenous researchers and knowledge holders and scientists from the Global South are underrepresented in conservation science. Furthermore, the

conservation science community should consider how it can address the issue of "parachute science" and embody more equitable and ethical research practices – for example, through developing more meaningful local partnerships, redistributing research funds, including local researchers and authors, co-producing scientific processes and outputs, and giving back through local capacity building and knowledge sharing (Chin et al., 2019; Stefanoudis et al., 2021).

Organizational Capacities to Advance Social Equity

Many conservation organizations do not yet have the capacity to adequately engage with and advance social equity in their work. Here, we identify a number of organizational capacities – at the institutional, procedural, and operational level – that are required within and across the aforementioned marine conservation organizations to facilitate greater attention to and action on social equity.

At the *institutional level*, each organization will need to establish a guiding philosophy, overarching mandate, leadership ethos, and team culture that embraces and supports actions to advance social equity. An important starting place is introspection – to develop an awareness of the organization's own history, foundational ideas, past actions, team composition, and present programs – followed by reflection on changes needed to address past and present issues. This might include, for example, revisiting organizational philosophies and visions, rethinking objectives or theories of change, or re-constituting teams to be more diverse and inclusive so that these organizations embody the ideals they hope to promote.

At the *procedural level*, marine conservation organizations – including NGOs, advocacy groups, and funders – should consider

TABLE 2 | Potential attributes to measure the elements of social equity in marine conservation (building on Schreckenberg et al., 2016; Zafra-Calvo et al., 2017; Bennett et al., 2020; Engen et al., 2021).

Element of equity	Potential attributes to measure
Recognition	• Acknowledgment of all stakeholders and rights holders • Acknowledgment of and accounting for formal and customary rights and tenure • Incorporation of diversity of cultures, values, practices, and knowledge systems • Integration of worldviews, perspectives and needs of diverse and marginalized groups, including different genders, ethnicities, classes, ages, and abilities • Affirmation of sovereignty, autonomy, and the right to self-determination • Protection of human and Indigenous rights
Procedures	• Inclusion and participation in decision-making, with particular consideration of marginalized groups (including different genders, ethnicities, classes, ages, and abilities) • Local agency and capacity to engage in and lead decision-making processes • Transparency of information, decisions, and intentions • Documentation of free, prior, and informed consent • Presence of accountability mechanisms • Establishment of clear grievance and conflict resolution mechanisms
Distribution	• Consideration of distribution of socio-economic impacts in planning and management processes • Processes and mechanisms to reduce, manage or mitigate negative impacts • Opportunities identified and actions taken to increase locally valued social and economic benefits • Perceived fairness of social impacts – benefits and burdens – of conservation to local communities and groups, taking into consideration marginalized groups (including different genders, ethnicities, classes, ages, and abilities)
Management	• Local participation or active engagement in management activities • Extent to which local people are responsible for management and take a leadership role in conservation • Presence of rights and policy frameworks that enable local people to be responsible for and take a leadership role in conservation management • Sustainable financial mechanisms to support local participation, capacity, and leadership in conservation management
Environment	• Efficacy of marine conservation networks, initiatives, and actions being promoted and implemented at protecting species, habitats, or ecosystems • Adequacy (e.g., financial resources, sufficient staffing, management plans, evidence-based decision-making, adaptive management, coordination) and effectiveness (e.g., ecosystem maintenance, species recovery, threat reduction) of management • Tangible and recognized flow of environmental benefits and ecosystem services to local communities
Contextual or Structural	• Extent to which existing economic structures leave local populations economically marginalized (e.g., economic inequality) or without basic needs (e.g., poverty) • Extent to which existing social norms or institutions marginalize certain groups (e.g., gender, ethnic, class, clan, racial, or religious) • Presence of national governance and policy frameworks that enable the ability to pursue equitable marine conservation (e.g., recognize Indigenous rights or customary tenure, support local decision-making, and governance) • Whether conservation organizations or institutions have supportive leadership and cultures, clearly articulated mandates, explicit codes of conduct, social safeguards, or provide enabling conditions necessary to advance equity in marine conservation

the articulation of a code of conduct or set of social principles to guide their engagement activities and programs of work (Bennett et al., 2017b). Such a code of conduct, we suggest, should include principles related to the different aspects of equity: recognition of and respect for diversity, participatory decision-making and good governance, the fair distribution of benefits and burdens, collaborative and locally led management, the ecological efficacy of actions, and the need to address contextual and structural factors that impede equitable conservation. However, to ensure that organizations move beyond visionary platitudes, such codes of conduct will need to be incorporated into the culture of institutions, and supported by clear guidance from leadership on actions that need to be taken, a culture of learning, and mechanisms to ensure accountability. A culture of learning, sharing, reflection and adaptation should be normalized and pervasive within the conservation community, supported for instance through monitoring and evaluation of organizational efforts to advance social equity and the social impacts of conservation, sharing of success and failures, documentation of lessons learned, and ongoing and participatory deliberations on necessary improvements. For accountability purposes, it may also be essential to commit and adhere to a set of social safeguards, to publicly and transparently communicate project objectives and social impact assessments, to establish grievance and conflict resolution mechanisms, and to clearly assign liability and responsibility for remedy (WWF, 2019; CI-GEF, 2020).

At the *operational level*, marine conservation organizations will require adequate knowledge of the social context in the areas where they engage and should acquire the necessary expertise in how to address human dimensions issues in marine conservation. All organizations – including international policy organizations, governments, NGOs, and funders – should consider building capacity in the human dimensions of conservation or hiring personnel with expertise in the human dimensions who can help to consider how to integrate equity concerns into marine conservation policies, programs, actions, and funding portfolios (Bennett et al., 2017a). Finally, sufficient and long-term financial resources will be needed to hire and build capacity within each organization, to support conservation projects and activities that include more inclusive processes and promote equitable outcomes, and to enable local involvement in and leadership of all aspects (e.g., research, decision-making, management) of marine conservation.

Conclusion: Committing to Social Equity in Marine Conservation

To conclude, we urge the marine conservation community and organizations to commit to the pursuit of socially equitable conservation. The meaning of marine conservation success is limited if we do not move beyond area coverage to include a broader set of metrics related to the effective and equitable management of the marine environment (Campbell and Gray, 2019). Social equity should be a core principle of all conservation policies and organizational practices, as it can help to prompt conservation initiatives that are inclusive, collaborative, fair, robust, and that will be more effective and sustainable in the long-term. This call to action is supported by international conservation policies (CBD, 2010, 2020) and agreements (United Nations, 1948, 2007; UNECE, 1998). Through this article, we have examined how advancing social equity in marine conservation initiatives requires attention to: recognition through acknowledging and respecting diverse peoples; procedures through fostering participation and good governance; distribution through maximizing benefits and minimizing burdens; management through championing local involvement and leadership; the environment through ensuring the efficacy of actions to maintain sustainability and benefits; and the broader context through addressing the contextual barriers to and structural roots of inequity in conservation.

The manner in which these ideas are applied by different organizations and in different locales will vary. Marine conservation organizations – including government agencies, NGOs, and philanthropic organizations – should reflect on their own history and identify ways that equity can be incorporated into and supported through their policies, programs, and investments. These organizations may need to build their internal capacity to be able to address human dimensions and social equity. At the programmatic or site level, there is no one recipe for creating socially equitable conservation initiatives – strategic planning will be needed based on the social, economic, cultural, and political realities of each context. Moreover, there is a need for continued attention to committing to, building capacity for, and improving the practice of marine conservation.

AUTHOR CONTRIBUTIONS

NJB, LK, WY-E, GA, SA, NCB, ND, AdV, JF, DG, MI, NL, SM, LM, E-KM, DO, AS, AVi, DW, AWh, and AWi: conceptualization. NJB: writing – original draft. LK, WY-E, GA, SA, NCB, ND, AdV, JF, DG, MI, NL, SM, LM, E-KM, DO, AS, AVi, DW, AWh, and AWi: writing – review and editing. All authors contributed to the article and approved the submitted version.

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