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Exploring power dynamics and bricolage practices in diverse cases of marine resource conflicts

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Economic growth strategies grounded in blue economy narratives are intensifying and proliferating marine conflicts. In light of this, the study explores how local actors employ bricolage-improvised, resourceful strategies-to challenge institutional norms and reconfigure power relations in the context of marine resource conflicts. We introduce a bricolage power framework to analyze marine conflict in Norway, Brazil, and South Africa. The study shows that fishers, working with NGOs and other partners, are actively engaged in amplifying their voices, promoting accountability, and seeking more just and sustainable ways to manage conflict. These insights emphasize the importance of collective action and collaborative partnerships to change conflict relations and outcomes by challenging various institutional practices and dominant power structures. In particular, the Brazilian and South African cases demonstrate how marginalized actors, through creative bricolage practices, can adapt and reinvent regulatory processes to challenge unjust practices and foster more inclusive and adaptive governance structures. While the grassroots initiatives examined show promise, they remain fragmented and have yet to catalyze systematic institutional transformation in the cases analyzed, so we are cautious against overestimating the transformative potential of these efforts.

KEYWORD

power, marine resource conflicts, blue economy, resistance, bricolage, sustainability change

1 Introduction

The Blue Economy (BE) agenda has been heralded by global institutions, states, and businesses as a vital driver of sustainable development in the world's oceans and coasts (Louey, 2022; Germond-Duret et al., 2022). For instance, the World Bank (2022) sees that additional growth of the blue economy is possible in several areas, especially through fisheries, aquaculture, mariculture, coastal tourism, marine biotechnology, seabed mining and ocean energy. The BE takes different forms and expressions with varying implications

that cut across sustainability concerns. Many researchers have outlined the contradictions and potential problems with BE (some referring to it as Blue Growth; Barbesgaard, 2018; Mallin and Barbesgaard, 2020). We regard the BE initiative as a key global practice that has the potential to, or is, exacerbating existing conflicts. The BE agenda may also drive new conflicts as the number and diversity of ocean and coastal activities increase in the context of geopolitical (and domestic) power struggles over resource use/territory, clashes between "new" blue economy activities and more traditional uses and changing climatic and environmental conditions/concerns. According to Tafon et al. (2022), the increasing presence and growing intensity of ocean conflict pose a risk to the successful implementation of feasible blue economy projects, which are crucial for achieving the Sustainable Development Goals outlined in Agenda 2030.

In line with the BE agenda, various multisector approaches to marine/sea governance, such as marine spatial planning and before this, integrated coastal zone management, and multiuse marine protected areas, have gained popularity (Grorud-Colvert et al., 2021). These approaches aim to foster strategic sea uses, and use of marine resources, enable fair and equitable access, deliver just outcomes, prevent or manage conflicts between sectors, and facilitate coordinated and integrated decisionmaking across multiple sectors, policies and stakeholders. While these ocean governance measures are mostly concerned with enhancing resource use efficiency and are entangled in blue growth imperatives, they also invariably have ambitions to contribute to ecosystem protection and sustainable marine use. While some of these marine governance measures have been in place for some time, their effectiveness remains uncertain, particularly concerning their ability to foster sustainability, social equity, and productive, equitable conflict resolution—such as through intersectoral decision-making in marine spatial planning. A key challenge for ocean governance is how to productively align blue growth and ocean governance with the norms of inclusivity, including those not counted or recognized as a large sectoral interest, but whose wellbeing (in material and socio-cultural terms) is intrinsically tied to the sea (Tafon et al., 2023a). This challenge also relates to different notions of, and the relationship between environmental sustainability, wellbeing and the blue economy as pointed out by Silver et al. (2015).

Whereas marine governance regimes (e.g., marine spatial planning) have largely seen conflict as a state of affairs to be prevented, avoided, "managed out" or postponed (Tafon et al., 2019a), increasingly scholars are seeing marine conflict as an inescapable dimension of social life offering opportunities and possibilities to realign governance practices and institutions toward multidimensional sustainability (Temper et al., 2018; Martinez-Alier, 2023; Tafon et al., 2023b). While these scholars acknowledge that conflicts can have negative consequences, they argue that they also create important opportunities for positive social and institutional change. By drawing attention to socially unjust and ecologically damaging practices, conflicts can catalyze innovative solutions that promote greater social justice and environmental sustainability (Temper et al., 2018; Rodríguez et al., 2024). This approach is premised on harnessing the energy of conflicts to search for opportunities to shift toward more inclusive, constructive and congenial relations that enable spaces for respectful but frank exchange to support ecological justice as well as social justice outcomes across stakeholder groups (Tafon et al., 2023b). In this reading, blue economy conflict and their governance thus becomes part of a process to be acknowledged and engaged with rather than a subject or object to be prevented, avoided, managed or postponed. This view is also reflected in the broader conflict transformation literature, where the key goal is not simply to "resolve" visible and episodic conflicts but to transform engagement and institutions, to cultivate opportunities for broader change and productive relations among protagonists (Lederach, 2003). This approach is concerned with both immediate conflict contexts, as well as the potential for broader constructive and desired change (Lederach, 2003).

However, acknowledgment of and commitments to harness blue economy conflict toward transforming practices and institutions that support multidimensional sustainability far outrun empirical insights on how this might come about in practice (Tafon et al., 2023a). While in ocean sustainability research (and sustainability science more generally) there is a significant body of literature that argues for normative principles in support of sustainability transformation, this has generally been framed in generic terms and not (at least directly) underpinned by empirical insights beyond single cases studies (van der Hel, 2018). There have been limited empirically derived practical insights on how conflicts and power struggles manifest and are addressed, through what strategies, and with what transformative challenges and possibilities in sustainability efforts in diverse marine settings. In response to this gap, this article draws on institutional and power theories to both develop an analytical framework and examine possibilities for sustainability conflict transformation pathways and actions across diverse global North and South marine conflict settings. We aim to generate empirical insights into the potential of conflicts as portals of disjuncture and renewal to provide situated, structural, systemic, and enabling sustainability transformations (West et al., 2019; Scoones et al., 2020). To do this, we examine marine sustainability conflicts in South Africa, Norway, and Brazil with a focus on the following research questions:

- (1) In what ways are actors employing power and institutional bricolage to navigate and shape marine sustainability conflicts?
- (2) How are transformations in marine sustainability being driven by changes in power relations and institutional changes?

After the Introduction, we briefly review the marine social science literature that looks at the relationship between sustainability conflicts and justice. We then present our conceptual framework for ocean sustainability transformations, which draws inspiration from theories of bricolage and institutional change, linked to various modes of power. Subsequently, the methods section introduces the specific cases in Norway, Brazil and South Africa under study and the data collection methods employed for each case. The Results and Analysis section adopts the conceptual framework to structure and discuss findings. Finally, in our concluding remarks, we reflect on the original aims of the article and offer broader insights stemming from the unique approach employed in this study.

2 Theorizing sustainability conflicts and change

2.1 Marine sustainability conflicts

Diverse presumptions and viewpoints are the foundation for various interpretations of sustainability within various marine contexts. Blue Growth, in its various manifestations, as well as the support it inspires (e.g., European Commission, 2021) and the opposition it evokes (Jones et al., 2016; Martínez-Vázquez et al., 2021), is a case in point. As a result, these varying viewpoints and positionalities give rise to distinct types of conflicts, which prioritize certain dimensions of sustainability (and related actions or interventions) while potentially neglecting others (Tafon et al., 2019b). The reasoning and how/why this comes about are affected by actor group values, historical context/relations, rights claims, placed-based experiences, physical location, interests, power relations, and institutional arrangements, among others (Silver et al., 2015; Clark and Cisneros-Montemayor, 2024). The sheer pluralism and diversity of conditions surrounding marine sustainability challenges raise questions about how to productively engage in marine governance and related conflicts with a full array of social groups-including those who are not counted or recognized as having significant sectoral interests (or who have low recognition status), yet whose material and nonmaterial well-being is intrinsically tied to the sea (Tafon et al., 2023a). Such actor groups commonly include place-based coastal populations, proxy (informal) representatives of nature (Tafon et al., 2023a), ocean/coastal defenders (Bennett et al., 2022), fishers with customary sea rights/knowledge claims (Tafon, 2019), proponents of conservation (Bennett et al., 2019), and cultural heritage (Gómez et al., 2021), among others. Furthermore, the interpretation of sustainability will vary across marine contexts, including how relationships are managed among factors such as economics and ecosystem protection, industrial development and localization (e.g., indigenous or customary rights), and sociocultural knowledge and science. More broadly, ocean economy growth strategies-commonly referred to as Blue Growth-are shaping relationships to various sustainability pathways, given their tendency to spark conflicts over interests, coastal and marine territories, resources, rights, and values (Martínez-Vázquez et al., 2021). The emergence of these fairly recent dynamics call for purposive collective action among a diverse range of actors, aimed at reforming or adjusting unproductive governance arrangements and entrenched power structures.

2.2 Bricolage and institutional change

We draw on an institutional bricolage (Cleaver, 2002, 2012), also referred to as institutional work (Beunen and Patterson, 2016) approach to assess and explain the interplay between actors and institutions, and the capacity and capability of institutions and practices (both informal and formal) to support desired changes in the face of conflicts. Cleaver's work on institutional bricolage—as a critical approach to understanding how hybrid

institutions emerge—has been widely applied across natural resource governance contexts. Most prominently by Cleaver herself in water governance and irrigation, but also community forestry (Cleaver and de Koning, 2015), community conservation (Saunders, 2014), co-management in marine protected areas (Prado et al., 2021), small-scale fisheries governance (Satizábal, 2018), fisheries management (Smith et al., 2001) and pastoralist land management (Cleaver et al., 2013). We see this framework as particularly valuable for analyzing how grassroots actors, through collaboration and improvisation, mobilize diverse resources to contest rigid, unjust, or unsustainable institutional structures (Cleaver and de Koning, 2015).

We are concerned with how existing institutional structures, processes, practices and outcomes affect prospects realizing conflict transformation pathways, including how actors (in cooperation) whether they be grassroots, NGOs or institutionalized, construct, reproduce, or revise the meanings and roles of institutions (Beunen and Patterson, 2016) and what types of practices are accepted (or given local legitimacy) within and despite formal rules (Nunan et al., 2015, pp. 203-204). This necessitates engagement in the institutional work or the practices through which actors create, maintain, or disrupt institutional structures (Lawrence and Buchanan, 2017). Beunen and Patterson (2016) describe how these "actions can take diverse forms, including, for example, participating in legal challenges to existing laws, discussing and drafting policies, the enforcement of laws, and negotiations about the meaning of particular institutions" (p. 13). Such an approach examines the relationality between institutions at various scales, is concerned with the formation of historical institutions, the complex deliberations and interplay between differently purposed modern and traditional, formal and informal arrangements, and their interpretation and legitimation processes (Cleaver and de Koning, 2015; Hajer, 2003).

Premised on the idea of contingency and institutional ambiguity or void—which creates space for flexibility (for agents to reinterpret, reconstruct, reshape and contest institutions)—a key question arises: how is change gradually produced through interactions among diverse actors within a context of institutional, legal, and policy plurality. The approach adopted here examines the processes by which people imbue configurations of rules. This includes differing interpretations of laws, traditions, norms and relationships with meaning and authority and how this modifies old arrangements/practices and invents new ones within the limits of what is considered socially acceptable or meaningful (Cleaver, 2012 p. 45). This is not just about presenting arguments and scientific data to sway people for change, but as Mouffe (2022) points out, political struggles will also involve identifications (constructing collective identities) that have important affective dimensions. Additionally, as articulated by Zwarteveen et al. (2017), bricolage underscores the distributed nature of innovation, where local actors play a crucial role in the design and implementation of the everyday livelihood practices that they engage in.

A central question is: by addressing sustainability conflicts, what are the roles of existing institutions, and how and from where can institutional change come about that is aligned with sustainable and just outcomes (Hajer, 2003, p. 176). Through bricolage, grassroots mobilizations, commonly in collaboration

with NGOs, can catalyze sustainable change through forms of collective action that draw on shared historical experiences, values, and goals. Communities and social groups may seek to amplify the impact of grassroots mobilizations resources by forming alliances to pursue their goals (Christens and Gupta, 2021). In sustainability resource conflicts, bottom-up initiatives can build alliances and leverage resources like knowledge and skills to challenge existing power structures (Tafon and Saunders, 2019) and mitigate unjust natural resource management and conflicts (Mayaux et al., 2022; Sakketa, 2018).

Bringing about social change rests on two key differentiated strategies, which should not be seen as mutually exclusive. First, working within existing formalized institutional structures, which may include lobbying and advocating policy through engagement. Second, working outside of current established institutions which may include direct action (e.g., demonstrations) or conducting alternative (parallel) systems. Both these approaches may bring pressure to bear on existing institutions and open up possibilities for change. Through these actions, social groups seeking change can exhibit active bricolage by utilizing available resources and tools to engage in resistance activities to advance their goals. It is not uncommon that these different approaches are combined to maximize their impact. The task for the researcher then becomes to explore, to what extent can institutions, animated through different forms and combinations of action-oriented bricolage, be transformatory and relatedly how much room different actors (e.g., NGOs, coastal communities, fishers, resource managers, scholars etc.) get in maneuvering specific institutions in relation to desired pathways of change (Cleaver and de Koning, 2015, p. 12).

2.3 Power and change

Redressing power imbalances to advance sustainability conflict transformation is seen as integral to dealing with underlying injustices that contribute to and fester conflicts (Bennett et al., 2019). Avelino (2021) emphasizes how a focus on different types of resource-power (e.g., economic, political, ideological, etc.) can generate insights into the dynamics of change (or not) in conflict contexts. Importantly, such an approach can also discern whether actors seeking to enable transformative change are exercising more power than the actors obstructing change (or vice versa). That is, to understand the dynamics of conflict transformation entails not only a focus on the exercise of power in the negative register or power over (understood here mainly as domination) but also the exercise of power among actors (power with) that has the potential of power (capacity) to bring about progressive and sustainable change (Morrison et al., 2019; Avelino, 2021). Such positive expressions of power may include:

- power within, which involves hitherto marginalized groups acting based on the development of a sense of rights and entitlements.
- power with, which involves collective power that emphasizes working together with others to achieve common goals recognizing that individuals or social groups can enhance their

- position by building alliances and sharing resources, skills, and perspectives.
- power to, which refers to the capacity to act and bring about the
 desired change. It emphasizes empowerment, agency, and the
 capability to exercise influence over decisions and actions—
 both as individuals and social groups, who may be grassroots
 actors or resource management agents.¹

Gaventa (2006) discusses three other forms of power that need to be responded to if progressive change is to occur. These forms of power loosely intersect with the forms of power discussed above. First, visible forms of power are contests over interests which are visible in public spaces or formal decision-making bodies (Dahl, 1957). Second, hidden forms of power are those that keep certain (often controversial/conflictual) issues, interests and voices out of the decision-making process or the public agenda (Bachrach and Baratz, 1962). Third, invisible forms of power are internalized beliefs and norms, whereby ideology and a lack of awareness of one's own precarity prevents one from speaking or taking action to change inequities and injustices to which one is subjected (Lukes, 2005; Gaventa, 2019, p. 118–119).

In terms of conceptualizing these forms of power and how they are expressed in pursuing multidimensional sustainability in marine conflicts we see transformative visible power is about trying to change the "who, how and what" of formal institutions, decision-making, laws and policies so that they are more democratic, accountable and responsive (and equitable; Tafon et al., 2019b). This form of power intersects with ways to transform existing institutional and governance arrangements currently implicated in the exercise of power over in the negative register. Responding to hidden power means strengthening the capacity of the marginalized and vulnerable to build collective power (power with and power to) to gain greater influence over who gets to the decision-making table and when, and what gets on the agenda. Addressing invisible power (or power within) entails marginalized and vulnerable groups as well as institutionalized resource managers and academics exercising critical reflectivity, envisioning preferred futures, and reworking social, institutional and political norms. It also involves reconfiguring governance arrangements and raising awareness to reshape individuals' and

¹ Among the grassroots actors, bricolage may emanate from "customary practices, that have developed over time, based on traditional knowledge, religious or cultural beliefs" (e.g., taboo areas), and an intimate connection to place' but it could also be linked to diverse local resource stewardship initiatives, such as locally managed marine areas, community-based fisheries management, and local coastal ecosystem restoration initiatives, among others, which may receive support from governments or formal resource managers (Bennett et al., 2022 p. 1). In the latter, institutional resource management agents' power—as a form of institutional bricolage—may refer to the resource manager's agency, which can be exercised either through self-reflectivity [e.g., by questioning and reinterpreting institutionalized rules (Tafon et al., 2019a; Prado et al., 2021)] or through accepting or acquiescing to the demands and alternative rules brought forth by grassroots and resistant movements. But it may also result if/when governments endorse locally...led or initiated resource management practices (Bennett et al., 2022).

social groups' self-knowledge or perceptions of themselves in relation to others and to institutions.

Taken together, the types of power described above help to expose who has more or less ability to take action ("power over," "power to," "power with," "power within") to achieve their goals in diverse instances. The different forms and expressions of power described above serve as valuable analytical tools for examining conflict transformation, however, in practice, these forms of power often interact and overlap, blurring the boundaries between them and necessitating a nuanced approach to comprehending their intricate relationships. At the same time, while we have presented the different forms of power mainly in binary relations, we acknowledge that they are not mutually exclusive, in the sense that power over, for instance, does not always entail the absence of power with, power to, or power within, and vice versa.

2.4 Combining bricolage and power

Bricolage as articulated here is conceived as actions for challenging, adapting or reinventing existing institutional arrangements that play key roles in reproducing existing, negative sustainability conflicts and the injustices and inequities they often spawn. Different modes and expressions of power permeate, animate and reproduce existing institutions. When combined with power analysis, bricolage can shed light on how power dynamics shape the possibilities and constraints of social change efforts, while also illustrating how diverse (formal and informal) bricoleurs apply their knowledge, power and agency in respect of individual and collective action in differing ways (Cleaver, 2002). In this way, working with ways to disrupt, adapt or reconfigure these institutional arrangements through bricolage practices can provide insights for sustainability change (Table 1).

3 Methodology

Our knowledge of power relations and the potential for transformative change toward more sustainable and socially just outcomes can be strengthened by examining how strategies and pressures to effect and achieve institutional change intersect with power dynamics in the context of marine sustainability conflicts. In this study, we use a diverse set of case studies linked to the international Oceans Pact project funded by the 2020-2024 Belmont Forum Collaborative Research Action (CRA) program on oceans sustainability to explore diverging types and sociopolitical contexts of marine sustainability conflicts as further elaborated in the results section. In short, the South African and Brazil cases shed light on how marginalized groups such as small-scale fishing communities in collaboration with NGOs and other supporting partners, employ active bricolage to subvert established power structures and advance sustainability and social equity, as well as what avenues to maneuver are available to marginalized actors/bricoleurs. On the other hand, the Norwegian case exposes an intersectoral marine conflict between fisheries, offshore energy and offshore wind highlighting the complexities and challenges in negotiating power relations between various sectors with conflicting interests. By examining these three cases

TABLE 1 Power and bricolage: this table provides an overview of how different forms and expressions of power interact with the concept of institutional bricolage in the context of sustainability conflict transformation.

Forms of power ^a	Expressions of power ^b	Role in institutional bricolage ^c
Visible power	Power Over Power To	Visible power intersects with ways to transform existing institutional and governance arrangements currently implicated in the exercise of power over. In bricolage strategies power to refers to the capacity to act and bring about the desired change. It emphasizes empowerment, agency, and the capability to exercise influence over decisions and actions.
Hidden power	Power With	Hidden power involves strengthening the capacity of the marginalized and vulnerable to build collective power (power with) to gain greater influence over who gets to the decision-making table and when, and what gets on the agenda (power to)
Invisible power	Power Within	Through bricolage strategies, individuals/actor groups can challenge societal norms (invisible power), enhance their self-belief (power within), and instigate institutional change.

^aGaventa (2006); ^bDahl (1957), Bachrach and Baratz (1962), and Lukes (2005); ^cCleaver (2002, 2012).

together in this article, we can gain a more nuanced and richer understanding of the complexities of marine sustainability conflict conditions and their potential for transformative change. It is important to note that our aim is not primarily comparative, but rather to use a set of divergent cases to gain a more nuanced empirical understanding of how marine sustainability conflicts and power struggles manifest and are addressed.

The case study researchers' approaches and relations to their respective cases varied, with SA and Brazil case researchers working closely with societal actors, such as fishers and NGOs, to support efforts to drive change around a conflict in a more sustainable and just direction. The Norway case research engaged equally with a diverse range of actors to foster mutual understanding and co-create knowledge about a sustainability conflict.

Data collection across the cases was tailored to the context and stage of the conflict. In the South African and Brazil cases, the researchers' role extended to supporting efforts to change the dynamics of the conflict toward a more just state. Table 2 gives a summary of the methods used and actors involved in each case.

Due to the sensitive character of conflict situations, ethical considerations were a priority throughout the research. All participants had to give their free, prior consent, and the study maintained participant confidentiality and anonymity at all times. Additionally, the research was also approved by the relevant ethics committee in each country.

4 Results and analysis

In this section key features of each case study conflict under examination are presented in Tables 3–5. For each case study, this

TABLE 2 Summary of methods in the three case studies.

Case studies and research time-frame	South Africa (2021–present)	Brazil (2021–2022)	Norway (2021–2023)
Interviews/meetings	Small-scale fisher representatives (5); local farmers (2); NGO and legal team (\sim 10); coastal experts (\sim 10)	Small-scale fishers' representatives (7) Conservation NGOs and researchers (5) Fisheries NGOS and researchers (4) Local managers and policy makers (5)	Fisheries associations (2), energy company (1), aquaculture association (1), fisheries authorities (3)
Document analysis	Various policies and laws; analysis of EIA regulations since first promulgated; technical reports and papers on coastal mining	Numerous documents, including minutes of meetings, technical reports, regulations, and motions from 2006 to 2021	Policy documents, strategic environmental assessments, reports, and numerous consultation responses
Observations/Field visits	Site visits to mining areas, several years of participant observation of SSF communities and activities in the area (30 years)	Participant observation of public meetings, seminars and governmental working groups regarding the conflict	Participation and observation at offshore wind energy conference and two dedicated webinars focused on offshore wind and fisheries coexistence
Workshops	Workshop with coastal specialists from academia, consultants, and government agencies (1), Fishing communities (2)	Participatory Scenarios Planning workshop (see Prado et al., 2024) with all sectors previously interviewed (17)	Two dialogue forum meetings with eNGOs, sector authorities, and industry (fisheries and energy)

is followed by an analysis that examines the bricolage strategies and reflects on changing power relations.

4.1 Norway case study: bricolage strategies and reflections on power relations

In this section, we discuss how, faced with the disruptive advent of offshore wind, Norwegian fisheries strategized change hidden power by gaining power-with and power-to influence policies, regulations, and project outcomes. The Norway case exposes an intersectoral conflict involving decision-making regarding the allocation of marine space between renewable energy generation and fisheries (Table 3). This conflict also reflects a broader tension between continued fossil fuel extraction and climate politics, which underscores the complexities inherent in transitioning toward renewable energy sources while still relying heavily on traditional fossil fuel exports and infrastructure. The Ministry of Energy (ME) and The Norwegian Water Resources and Energy Directorate (NVE) serve as the principal regulatory bodies overseeing the identification and selection of areas for offshore wind and the development of the licensing procedures. They therefore hold significant power over spatial designation of resource use. To address such (intersectoral sustainability) conflicts, stakeholders must be open to change and be able to reimagine regulatory frameworks to accommodate both sectors' voice and substantive interests (Cleaver, 2012). Norwegian fisheries are highly organized (Jentoft and Finstad, 2018) and their interests are primarily represented through the collective powerwith of various industry associations acting in concert. These are resourceful organizations representing different segments of the fleet. Beyond institutional consultation processes, fisheries associations expressed their concerns about Sandskallen, and even more strongly regarding Hywind Tampen, by amplifying their voice through media channels. These associations aimed to raise awareness, shape public discourse, and ultimately drive institutional change. Their power to, or advocacy power lies in their capacity to highlight environmental, economic, and social impacts to influence policies, regulations, and project outcomes. Despite regulatory *power over* the use of marine space being firmly in the hands of the Ministry of Energy, the fisheries sector was able to exert influence on both OWE proposals by working together and drawing attention to the conflict through media engagement (Knol-Kauffman et al., 2023, see also Utne-Palm et al., 2025). This appears to have been a creative and prudent strategy to garner public support and to open the conflict to broader scrutiny, as fishing is not only economically important but also deeply rooted in Norwegian culture.

The Sandskallen and Hywind Tampen conflicts set the stage for institutional reforms, as the conflicts demonstrated that the anticipated acceleration of offshore wind development in Norway requires effective and legitimate cross-sectoral collaboration. The fishers' articulation of concerns and advocacy for change mobilized actors across different levels to challenge existing institutional structures. The formalized consultation procedures had demonstrated to be limited arenas for engagement (Knol-Kauffman et al., 2023) and increased awareness that more timely and direct forms of collaboration would be beneficial to all parties. Two collaboration forums were subsequently established, giving the fishers more power in these processes. Offshore Norway an association of offshore energy and supplier companiesand three fisheries associations established a working group in 2022 with the task of developing a practical handbook and a set of principles to guide coexistence and prevent conflict in all phases of offshore wind development-from area planning to decommissioning (Offshore Norway, 2023). In parallel, the Ministry of Energy established a collaboration forum for offshore wind, thereby empowering stakeholders whose engagement had hitherto been limited to consultation processes. This forum, with a working group focusing on coexistence, encompasses fisheries and offshore energy industries, public authorities, and environmental bodies, as well as on developing common and mutually acceptable rules for how to allocate, develop and manage offshore wind farms in a manner that considers diverse interests. Arguably, these forums were inspired by decades of experience of coexistence practices and dialogue between the Norwegian petroleum and fisheries sectors, which the blue economy conflict helped to reactivate.

TABLE 3 Norway case study: summary of key conflict features.

Case/conflict aspect	Norway, North Sea
Conflict description	The marine sustainability conflicts in Norway arose from competing interests between offshore wind energy development and the fisheries sector over issues such as ecological impacts, impacts on fisher mobility, allocation of spatial use, stakeholder engagement. More specifically, Hywind Tampen proposal for offshore wind (OWE) farms as an electrification project aimed at reducing greenhouse gas emissions from oil and gas extraction on the Norwegian Continental Shelf. Fishers were largely excluded from the decision-making process. Sandskallen was a proposed site for OWE farms designed to generate green energy to be brought onshore and fed into the Norwegian electrical grid. Fishers were highly concerned about its impacts as the area overlapped with important fishing grounds. The area was never opened for OWE farms.
Trigger for the conflict	Conflicts at both Sandskallen and Hywind Tampen were triggered by the proposal to build OSWD.
Actors	Offshore Wind Developers, Fisheries Sector, Offshore Energy Sector, The Ministry of Energy (ME) and The Norwegian Water Resources and Energy Directorate (NVE), Researchers and Experts
Important collaborations	Consolidation of Norwegian Fisheries Associations: acting collectively to strengthen their capacity to influence resource access decisions. The Ministry of Energy (ME) and The Norwegian Water Resources and Energy Directorate (NVE): serve as the principal regulatory bodies overseeing the identification and selection of areas for offshore wind and the development of the licensing procedures. Norwegian Fisheries Associations and various media: the fisher associations channeled their messages through the media to highlight their concerns/engender accountability.
Types of actions by fishers	Representation through conventional institutional channels, i.e. public consultations Media exposure: fisher communities, NGOs, and researchers have utilized increased media attention to raise awareness, leading to higher public engagement and more accountability and feedback on new offshore energy proposals.
Conflict outcomes	As a result of the conflicts, the energy authorities decided in 2022 to initiate a new marine spatial planning process to identify suitable areas for offshore wind. In response to fishers' concerns, the new areas were located farther offshore than areas identified in earlier processes. In addition, two cross-sectoral working groups were established with a focus on transforming the conflicts between offshore wind and fisheries: 1) Offshore Norway—an association of offshore energy and supplier companies—and three fisheries associations established a working group in 2022 with the task of developing a practical handbook and a set of principles to guide coexistence and prevent conflict in all phases of offshore wind development—from area planning to decommissioning (Offshore Norway, 2023). 2) In parallel, the Ministry of Energy established a <i>collaboration forum</i> for offshore wind, thereby empowering stakeholders whose engagement had hitherto been limited to consultation processes. This forum, with a working group focusing on coexistence, encompasses fisheries and offshore energy industries, public authorities, and environmental bodies, and focuses on developing common and mutually acceptable rules for how to allocate, develop and manage offshore wind farms in a manner that considers diverse interests

In effect, through their mobilization of power resources, fisheries associations also challenged spatial planning practices as NVE was given a mandate to identify new areas for offshore wind, with larger emphasis on coexistence. Whereas, the areas that were initially mapped as "suitable" for offshore wind were located close to the coast, the new areas were farther offshore. These changes went hand in hand with a shifting public discourse that gradually increased emphasis on the notion of coexistence beyond a pure spatial definition.

A significant portion of the power dynamics revolved around rectifying the limited representation of fishers in formal institutional structures deciding marine spatial use (Dahl, 1957). Fishers through collective action aimed to reconfigure these structures to be more democratic and equitable, particularly in terms of fishing interests. Power relations shifted partly from within the sectors and through their participation in the collaboration forums, fishers' interests were made more visible in public spaces and formal decision-making bodies (Bachrach and Baratz, 1962; Gaventa, 2019). Although it is premature to assess the transformative impact of these examples of collective action (powerwith and power-to), the case signifies institutional reflexivity and a recognized need to reconfigure power relations and cultivate trust in pursuit of a just and inclusive blue economy (Cleaver, 2012).

Thus, through strategic media engagement in addition to critical engagement in the public consultation procedures, the fishers were not only able to shift or at least harness the power of public perceptions and norms to affect institutional change (Cleaver and de Koning, 2015), but also highlight the cultural

significance of fishing in Norway, thereby garnering public support which exerted pressure for institutional reforms. The institutional reforms were largely a result of fishers collaborating to exercise a form of power that operates by challenging the exclusion of certain issues, interests, and voices from the decision-making process—which were previously hidden (Gaventa, 2006). This involved strengthening fishers' representation in marine spatial decision-making with the prospect that this would translate into more visible power. Ultimately, the goal was to gain greater influence over agenda-setting and decision-making outcomes governing marine resources (Gaventa, 2019).

4.2 Brazil case study: bricolage strategies and reflections on power relations

In what follows, we discuss the bricolage practices of fishing communities leading to temporary suspension of regulations restricting small-scale fishing practices along the Sao Paulo coast. The Brazilian conflict was over the barring of traditional fishing practices, due to a fishing regulation created because of claims by conservationists that they were having an excessively negative effect on marine megafauna. Fishers engaged with managers, emphasizing the credibility and situatedness of traditional knowledge and drawing on a range of alliances, including with researchers and NGOs to negotiate their relationship and gain greater traction in formal institutional practices that affect them

TABLE 4 Brazil case study: summary of key conflict features.

Case/conflict aspect	Brazil, São Paulo coast
Conflict description	Small-scale fishers advocate for their traditional fishing rights, knowledge and practices, emphasizing their cultural and economic significance, while conservationists are concerned to ensure marine megafauna protection, particularly focusing on critically endangered species like the dolphin, <i>Pontoporia Blainville</i> , which they argued surface gillnet fishing is harming.
The trigger for the conflict	The conflict was triggered by the enforcement of a fishing regulation of surface gillnet fishing that made small-scale fishing unfeasible, in order to reduce marine mammal bycatch.
Actors	The National Fisheries Secretary, three State-level marine protected areas, small-scale fisheries grassroots organizations/unions (SSFs), fisheries researchers, NGOs supporting SSFs and conservationists (NGOs and marine megafauna researchers).
Important collaborations	Fishers and researchers/NGOs: small-scale fishers have formed productive alliances with researchers and NGOs, which has assisted them in getting their knowledge claims recognized, which was important in shifting power relations over the conflict. Managers and fishers: MPA and fisheries secretary managers have engaged with the fishing sector recognizing the importance of including traditional knowledge and experiential practices of small-scale fishers in decision-making. MPA managers and national government: MPA managers and the National Fisheries Secretary have collaborated to exchange information and during the establishment of a scientific-technical group to address that the conflict
Types of actions by small-scale fishers	Alliance-building: small-scale fishers formed alliances with researchers, NGOs, and grassroots organizations to form collaborative action groups in support of their rights. Street protests and media attention: small-scale fishers engaged in street protests to highlight their grievances, which received widespread media coverage. Legal Actions: small-scale fishers, with support of an NGO and technical advisors, successfully undertook a legal action in the form of judicial conciliation hearings to defend their rights to continue using traditional surface gillnet fishing techniques. Self-monitoring of fishing data: small-scale fishers initiated a self-monitoring process for surface gillnet fishery, providing credible and valuable data on bycatch, which influenced the decision-making processes allowing the continued practice of gillnet fishing techniques
Conflict outcomes	Temporary suspension of the fishing regulation: legal action undertaken by Small-scale fishers, in conjunction with previous strategies, led to a temporary suspension of the fishing regulation by the national government in August 2021, with the establishment of a technical-scientific working group that extended the suspension until 2025. Collaborative forums: creation of the Sustainable Artisanal Fishers' Forum facilitated collaboration among fishers' unions and grassroots organizations. Participation in the MPAs management boards provided an important learning process for fishers. Procedural advancements: formal recognition of fisher's participation and knowledge in a governmental scientific-technical group. Norm shift: small-scale fishers challenged deeply entrenched stereotypes and influenced institutional norms regarding the credibility of traditional knowledge in formal decision-making processes on resource use. Continued engagement: the scientific-technical working group supported the continued practice of surface gillnet fishing until 2025 Despite much opposition from conservationists. Problem-solving strategies: small-scale fishers employed diverse and complementary strategies, such as street protests, legal action, and alliance-building, which illustrates their resourcefulness in asserting rights within coastal resource management.

(Cleaver, 2002). The role of resource managers and decision-makers in this conflict also reveals how bricolage strategies interact with different forms of power when formal arrangements can be modified (Cleaver, 2012; Prado et al., 2021). For the first time, an existing formal institution—the "scientific-technical working group" coordinated by the national government—was attended by fishers, and not just by scientists and technicians as before. Managers used their skills and power to act purposefully and meaningfully (Cleaver and Whaley, 2018), according to their worldviews, identifications and shared historical experiences (Prado et al., 2019). It also revealed how "power with" could help build bridges across different interests to transform the conflict and promote more equitable relations (VeneKlasen et al., 2002).

The Sustainable Artisanal Fisher's Forum was a grassroots organization created to represent legal actions and was pivotal in designing and conducting a self-monitoring process for surface gillnet fishery. Based on available resources, tools and alliances with academics and MPA managers, new arrangements were created (Cleaver, 2012). The self-monitoring of bycatch carried out by fishers contributed valuable, but still contested, data for the consideration of the national government's scientific-technical working group. In taking this action, the fishers confronted the stereotypical view that "fishers are anti-conservationists" and were able to shift institutionalized norms about what types of knowledge

are considered reliable or sound in relation to scientific-technical decision-making over resource use (Cleaver, 2012) along the São Paulo coast. In doing their own monitoring of bycatch, hidden voices of small-scale fishers and their traditional knowledge were used as evidence to confront conservationists, to support action and to promote a policy change. Combining local practices and scientific methodologies with the support of academics, both power within and power with were expressed. It triggered the mobilization of around 70 small-scale fishers reporting data according to their existing local engagement tools and resources (e.g., through WhatsApp groups, face-to-face landing approaches). The Forum and the self-monitoring process reveal a transformative knowledge network that challenged and contributed to reshaping an existing environmental policy by giving visibility (to what was previously made invisible) and public legitimacy to marginalized knowledge (Rodríguez and Inturias, 2018).

The Brazilian nationally centralized governance structure has historically worked against the potential for agile and bespoke localized management arrangements. Despite this, interventions by fishing communities in alliance with academics and MPA managers led to the suspension of regulations restricting small-scale fishing practices along the Sao Paulo coast until December 2025, thereby showcasing bricolage practices that were able to challenge and reform existing institutional arrangements—albeit at this stage,

temporarily. This complex process highlights the intricate interplay of diverse approaches and perspectives in addressing conflicts over gillnet fishing management in São Paulo. This case exemplifies how small-scale fishers use a variety of bricolage strategies, such as legal action, promoting traditional knowledge, forming alliances, and organizing street demonstrations, to assert their rights within coastal resource institutions and practices. These complementary strategies reflect a complex and interactive approach to problemsolving, showing the resourcefulness and creativity of SSFs.

Small-scale fishers were able to use their resources and sources of power to change their circumstances and effectively counterbalance the forces of domination (power over) regarding the hegemonic concept of marine conservation (Shultis and Heffner, 2016). This analysis shows how small-scale fishers were not just passive victims of domination but active agents of change. They weaved together "power with" (collaboration, collective action), "power within" (self-belief to pursue SSF rights) and "power to" (participate more equally in fish management decision-making forums) countervail the "power over" that they were previously subjected to Gaventa (2019). Affirming history from the local perspective can play an important role in developing environmental counter-narratives and counterhistories (Rodríguez and Inturias, 2018), which, in turn, helps to shift power relations in the marine environment. However, the government's regulatory power is still decisive in cases of conflict involving laws, rules and regulations in the marine environment. This means that power relations may once again be characterized as power over in the near future (Gaventa, 2006). Regardless of whether power becomes more visible and new arenas for discussion are implemented, as in the case of the working group with the participation of fishers and the inclusion of traditional knowledge, there is still a dependence on role, mandate and field of expertise of managers and how they will exercise agency and act as bricoleurs in the transformation of conflicts.

4.3 South Africa case study: bricolage strategies and reflections on power relations

Our final case shows how in the face of potential socioecological impacts of a renewed mining license, fishing communities with support of their social partners challenged powerful actors and existing institutional practices and procedures, including through legal action and the combination of power-with and power-to. In South Africa, the conflict has been between fishing communities working in collaboration with NGOs and researchers, to challenge the decision by government to grant a 30-year mining renewal right to a diamond mining company, without environmental authorization. Key concerns related to lack of consultation with interested and affected parties and in particular local fishing communities, and the potential negative effects of mining on environmental attributes, coastal and marine resources, as well as local communities, particularly their rights to food, and to practice their livelihoods and culture. SSFs, and their social partners, engaged in diverse modes of action (Table 5) to pursue their rights and defend their coastal areas. The NGO and SSF bricoleurs challenged what they saw as unfair, unsustainable, unconstitutional, and non-compliant actions and decisions in relation to mining and environment-related regulatory processes. Mining companies with the support of the State, pursuing aggressive economic growth strategies, have continued to enjoy unfettered access to South Africa's mineral resources, despite a raft of environmental laws and regulations that require protection of environmental and socioeconomic rights (Bond, 2019; Sowman et al., 2023). A key issue at stake is the different interpretations amongst actors of various legal provisions in law relevant to environmental assessment procedures and ecologically sustainable development.

In response to increasing mining threats on the west coast, affected fishing communities have formed alliances with NGOs, academics, local farmers and conservation groups, to raise awareness of the impacts of mining on sensitive coastal environments and exert pressure on government to uphold compliance with community rights and formal regulatory environmental requirements. In this particular case, PTWC and the affected fishing communities have been highly influential in raising public awareness regarding the lack of environmental oversight of expanding mining activities on the west coast, and the technical loopholes in the legislation regarding environmental authorization of mining renewal rights (PTWC, Doringbaai and Olifants River Small-scale fishing communities and others vs. Minister of Mineral Resources and Energy, Transhex and others Case No: 21414/2022). The range of bricolage strategies included forming strategic alliances with other actors to amplify their voice, invoking public support for their cause through the media and at public forums, which galvanized greater effort from provincial government and other actors to assign conservation status to the lower reaches of the estuary as agreed to with communities in 2013 (Sowman, 2017). Using legal bricolage, the mining company was required to upgrade and amend its EMPr, conduct specialist studies agreed upon by all parties, and consult interested and affected parties, in particular the affected fishing communities. The NPO, its experts and communities had insisted on "no-go" mining areas in important conservation areas in and around the Olifants estuary and although the proposed conservation areas were not fully supported, the company agreed to no mining activities in an area around the Olifants River mouth and on beaches to the south of the estuary extending for 11 km to Strandfontein (Court Order, Case 21414/2022, dated August 2023). This court order has focused attention on the urgent need to provide protected area status to the lower reaches of the Olifants estuary but recognizing the traditional rights of local fishing communities.

The legal actions taken by PTWC and local fishing communities, have raised the awareness of the rapid expansion of mining on the west coast and environmental and social costs associated with these activities. The deficiencies in the environmental authorization process for mining renewals, have been exposed requiring government to review and address these institutional deficiencies or face further legal action. This process has enabled the voices, knowledge and priorities of marginalized communities to be heard and improved their representation in assessment and decision-making processes. The Court Order requires that local communities are specifically consulted. Thus,

TABLE 5 South Africa case study: summary of key conflict features.

Case/conflict aspect	West Coast Mining, South Africa
Conflict description	Over the past 10 years, there has been a massive increase in mining applications and approvals on the west coast of South Africa. The conflict is fueled by competing interests, needs and contrasting worldviews and values of different actors (i.e., resource users, residents, NGOs and conservation agencies focussed on environmental and social impacts on the one side and mining companies, supported by the national government, on the other). The decision by the national Department of Mineral Resources and Energy (DMRE) to grant a 30-year renewal mining right to a diamond mining company, Trans Hex Operations (Pty) Ltd (hereafter Trans Hex), to mine diamonds on beaches and in coastal waters along a 80km stretch of coastline on the west coast, without requiring environmental authorization, prompted an NPO, Protect the West Coast (PTWC) in collaboration with local fishing communities, to take legal action.
Actors	Local fishing communities at Doringbaai, Ebenhaeser, Papendorp; Researchers from UCT; NGOs including Masifundise, PTWC, Legal Resources Center; Mining company Trans Hex; National government departments—DMRE and Department of Forestry, Fisheries and the Environment (DFFE); Provincial Conservation Departments [i.e., Cape Nature (CN) and Department of Environmental Affairs and Development Planning (DEADP)].
Trigger for conflict	Increase in prospecting and mining applications and operations on beaches and nearshore environments to the north and south of the Olifants estuary. Much of the mining is out of sight as access is restricted. However, diamond mining on the beach just north of Doringbaai, triggered a call to action by local communities, researchers and NGOs—they were not consulted and no environmental assessment had been conducted.
Important collaborations	Long-standing collaboration between UCT researchers, NGOs and local fishing communities concerned about actions that affect environmental and fishers' rights; Local fishers, residents and farmers as well as an increasing number of NGOs align against expansion of mining; Conservation agencies strengthen their alliance with local communities in terms of protection of the Olifants estuary, Researchers, coastal experts and provincial conservation agencies including Cape Nature and DEADP collaborate over conservation priorities at the estuary; Mining companies and government agencies responsible for minerals development;. The vast majority of prospecting and mining applications along the west coast are approved, raising concerns about the political independence of the Minister of the Environment, who is the Appeal authority, in the context of a powerful Mining Ministry and a weak economy.
Types of actions taken by small-scale fishers et al.	Fishing communities, NGOs and Researchers send letters of objection and lodge a formal appeal to the Minister of the Environment. Use of social media (newspaper articles, stories on PTWC website and Instagram, notices on fisher WhatsApp groups) raise awareness about the increasing mining activity on the west coast and Trans Hex case in particular. PTWC together with local fishing communities take legal action. Researchers and communities work with PTWC and its legal team. Researchers engage conservation agencies and experts to develop a map of proposed no-go mining areas.
Conflict outcomes	PTWC and fishing communities lodged their papers with the Cape High Court in December 2022 and after various court delays the Mining Company (Trans Hex) responded in May 2023. A series of negotiations with the legal teams and their clients ensued and in August 2023, the matter was settled out of court. The agreement required the mining company to 1) upgrade, amend and consolidate the Environmental Management Plan (EMPr), informed by agreed upon specialist studies; 2) allow PTWC and its experts to inspect the mining areas four times per year; 3) consult the public and in particular local fishing communities; 4) not mine in the coastal area in the vicinity of the Olifants estuary and on all beaches south of the Olifants estuary for about 11 km. The mining company was required to adhere to the EMPr of 2002 while the environmental assessment and EMPr upgrade process was underway. The NPO, its experts and local communities would monitor the mining companies activities while the EMPr was being amended and upgraded. Greater public and government awareness of the threat of mining on the west coast through social media exposure and the Trans Hex case in particular; strengthened partnerships between fishing communities, NGOs and researchers, greater collaboration between researchers and government conservation agencies, voices of local communities are heard and demands for meaningful consultation are required by the court order.

this collective action (power-with) by communities, supported by their social partners, enhances knowledge on the (hidden-power) issues, builds confidence, strengthens their convictions regarding their rights (power-within), and empowers them to challenge powerful actors and decisions in other cases (power-to; Gaventa, 2019). This collaborative legal challenge has surfaced the hidden voices of SSFs (power with and power within), strengthened existing partnerships, formed new alliances with non-traditional partners (power with) broadening the communities access to wider networks (power with) and forced greater accountability of mining companies and responsible government agencies (power to/over; Gaventa, 2019). The collaborative efforts have contributed to catalyzing actions (e.g., upgrade the EMPr) and expanding the knowledge base for legal and institutional reform.

Although the trajectory of this conflict may seem promising, it is still too early to ascertain its real or lasting promise as certain requirements of the Court Order are still in process. Furthermore, it is crucial to avoid being overly sanguine, as the driver of aggressive economic growth in South Africa has not been recanted or reformed in any substantive way (Cleaver, 2012; Bond, 2019; Sowman and Sunde, 2024). However, this case highlights how

communities working with their social partners have employed various bricolage strategies to challenge powerful actors and existing institutional practices and procedures, advocate for their rights and protection of their environment and to contribute to building resilience and agency in their communities.

5 Discussion

Across all the cases, bricolage practices challenged and, to some extent, disrupted existing institutional arrangements and related power relations in conflicts over coastal and marine resource use. Dominant conservation paradigms or economic growth strategies (and Blue Economy-related narratives) which were embedded in institutional practices acted as drivers of conflicts (e.g., mining in South Africa, marine conservation in Brazil, renewable energy development in Norway). This influenced the character of the conflicts and shaped the potential for changing conflict relations and outcomes.

In each case, fisher and NGO bricoleurs creatively drew on available resources and materials to deploy combinations

of practices to challenge and reform institutions, reflecting Beunen and Patterson's (2016) description of how institutional work can take diverse forms, including legal challenges, policy discussions, and negotiations about institutional meanings and practices. Their efforts amplified their combined voices, enhanced accountability, and more equitably and sustainably addressed conflicts. In Brazil and South Africa, where small-scale fisheries have been traditionally marginalized actors, fishers together with their social partners successfully employed a diverse range of bricolage strategies in marine conflicts to effect procedural changes and promote favored institutional reforms. While this led to increased agency and influence for small-scale fisheries, it is unclear to what extent these shifts in power-to and power-with represent a systemic move toward sustainability in both settings, however, they do change relations concerning fishers' voices and rights, whose knowledge counts and at least in the Brazilian case, decisions about resource access and use. In Norway, fishers leveraged their high level of organization to effectively engage with media and become members of coexistence groups, thereby claiming previously closed spaces (Gaventa, 2019), strengthening their influence and ensuring their interests were better represented in decision-making processes. These conflicts involved the exercise of strong modes of visible (regulatory, formal decision-making), hidden (priority-setting) and invisible (dominant economic growth discourse, backroom lobbying) forms of power. For example, in the South African case, responsible government agencies did not require mining companies to demonstrate that their operations would avoid harm to the coastal environment and communities before renewing their rights—despite significant socio-ecological and economic changes in the area since the original mining right was approved. This situation led to fisher groups, local communities, NGOs and some conservation organizations forming contingent power-with alliances in response to the evolving conflict dynamics and ongoing adverse threats and impacts of mining.

The extent to which the episodic gains achieved by bricoleurs in the three cases represent long-term transformations of marine, blue economy conflicts rests on several contingent factors. These factors include the maintenance or fortification of provisional power-with alliances, the willingness and capacity of bricoleurs to continue concatenating diverse forms of power and strategies, and the degree to which states, the judiciary, and corporations are willing to address locally made grievances in what is an increasingly state-corporate dominated blue economy world. This is especially important in relation to their capacity to promote sustainability, social equity, and transformative conflict resolution within marine governance frameworks driven by blue economy objectives (Jones et al., 2016; Martínez-Vázquez et al., 2021; Saunders et al., 2024). Indeed, insights from these case studies underscore the urgent need for reform toward more inclusive and adaptive blue economy governance—processes that proactively and equitably balance environmental, community, cultural, and economic interests. Rather than suppressing conflicts or reaching superficial resolutions, such reforms must address underlying injustices to prevent entrenched inequities (Tafon et al., 2022).

The insights of these cases emphasize the multidimensional and interrelated character of power in marine conflicts, underlying the importance of collective action (power with), building collaborative and trusting partnerships, as a key power-to strategy to challenge dominant, restrictive power over (in visible, hidden and invisible modes) structures. This is not surprising because social movement studies have long shown that intersectional and cross-issue solidarity movements can be effective in shifting institutional norms in a more progressive direction (De Jong and Mügge, 2020). Understanding how power dynamics can be shifted through bricolage practices, as demonstrated in the cases, offers opportunities to work more effectively toward inclusive and adaptive blue economy governance processes and structures that balance environmental, community, cultural, and economic interests more equitably. Finally, as these cases have shown, rolling out collaborative and pluralistic decision-making processes, and incorporating and valuing diverse interests and forms of knowledge are essential for addressing conflicts and fostering sustainable outcomes (Sowman and Sunde, 2024).

6 Conclusion and future research

The study showcases how bricolage practices, when undertaken by marginalized and resistant actors—such as small-scale fishers and NGOs-can significantly challenge and even, to some extent, transform existing institutional frameworks and power dynamics. Overall, the study demonstrates empirically that while marine conflict is often treated as an obstruction to be avoided, managed out or postponed, it presents opportunities for positive change. Furthermore, these findings highlight the key roles that collective action and collaborative partnerships can have in ably confronting dominant power structures, entangled in blue economy objectives within marine resource conflicts and conservation. The cases studied from Norway, South Africa, and Brazil demonstrate the way that bricolage practices can influence and reform marine-related institutional arrangements and their decision-making processes with positive implications for marginalized actors. Key practices engaged in by bricoleurs to challenge existing institutional practices included forming alliances, reconceptualising and reconfiguring decision-making processes to include fisher knowledge, leveraging media, and pursuing legal actions. By creatively utilizing available resources at hand, bricoleurs amplified their voices, took a seat at the decisionmaking table, gained greater accountability of institutional processes and relatedly, incumbents, and in general, promoted more equitable and sustainable conflict outcomes. These bricolage practices demonstrate potential for shifting power dynamics and fostering more inclusive and adaptive governance structures and processes. That said, it is too early to determine whether "powerholders" in the various cases will rework strategies to reverse the progressive reconfigurations of power relations described in this study. Moreover, the enhanced sustainability or equity promised by these shifts could hardly be conceived as systematic or transformative.

Notwithstanding, the study advocates for continued exploration of these dynamics and practices, emphasizing the need for future research that focuses on how marginalized actors, using bricolage strategies, engage in reshaping marine sustainability and blue economy conflicts along sustainability

pathways. Such research would examine the potential for relatively isolated episodes of power reconfiguration (such as those described in this article) to resonate over time and across marine governance practices more widely. Doing so would provide valuable insights into how episodic shifts in power or reforms could be leveraged to drive broader transformations. It also may more precisely map both the pre-conditions and institutional gaps in different marine governance conflicts that open up opportunities for marginalized actors to drive and enact institutional change in more just and sustainable directions. Such a research agenda would complement existing studies, including those by van Leeuwen et al. (2025), McAteer and Flannery (2022), and Kelly et al. (2019), which center the role of power in understanding how various strategies can drive transformative sustainability changes in marine governance. Future research should also explore how transdisciplinary methodologies can strengthen bricolage's transformative potential in marine sustainability conflicts and governance. By drawing on important emerging literature in transdisciplinary research (e.g., Augenstein et al., 2024; Mello et al., 2025). in conjunction with adopting a bricolage theoretical lens, future research could investigate how transdisciplinary approaches, ideally with researchers working closely with marginalized actors, business and decision-makers, could enhance pluralistic responses to marine socioenvironmental challenges and thereby bridge critical gaps between theory, coproduction of knowledge, societal mobilization and actionable change. Additionally, this research must consider the positionalities and power dynamics of researchers within co-production of knowledge dynamics to get better insights into how researchers' backgrounds, perspectives and relative power positions influence interactions with marginalized communities. Such insights could help to ensure that marine governance and conflict research practices—under the banner of transdisciplinary, co-production or participatory research—are more inclusive, pluralistic, equitable and above all, socially emancipatory and multidimensionally sustainable.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Ethics statement

The studies involving humans were approved by the respective Local Ethics Committees in the various countries where the studies were performed. In South Africa, the Science Faculty Ethics Committee, University of Cape Town, the Ethics Committee of Federal University of São Paulo, Brazil and in Norway the Norwegian Agency for Shared Services in Education and Research. In all cases, the studies were conducted in accordance with the local legislation and institutional requirements. Written informed consent for participation was not required from the participants or the participants' legal guardians/next of kin, in accordance with the respective national legislation(s) and institutional requirements.

Author contributions

FS: Conceptualization, Data curation, Formal analysis, Methodology, Writing - original draft, Writing - review & editing, Funding acquisition, Investigation, Supervision. DP: Data curation, Formal analysis, Investigation, Methodology, Validation, Writing - original draft, Writing - review & editing, Funding acquisition, Resources. MK-K: Data curation, Formal analysis, Investigation, Methodology, Validation, Writing - original draft, Writing - review & editing, Funding acquisition, Resources. MS: Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Resources, Validation, Writing - original draft, Writing - review & editing. RT: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Resources, Validation, Writing - original draft, Writing - review & editing. MG: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Validation, Writing - original draft, Writing - review & editing.

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The author(s) declare that no Gen AI was used in the creation of this manuscript.

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