International Journal of the Commons

Equity in the Management of Fisheries: A Theoretical Journey

REVIEW ARTICLES

BENJAMIN DUDOUET
OLIVIER THÉBAUD
ARNE KINDS
SEBASTIAN VILLASANTE

*Author affiliations can be found in the back matter of this article

]u[ubiquity press

ABSTRACT

The management of natural resources inevitably raises questions of equity, as decisions regarding access to and use of these resources reflect broader power relations and institutional norms. Fisheries represent a particularly revealing case given their dynamic, transboundary nature and the multiplicity of actors involved. This article examines how philosophical theories of justice —from classical thinkers such as Aristotle, Rousseau, Hume, and Locke to modern contributions by Rawls, Sen, and Illich— can inform the conceptualization and operationalization of equity in fisheries management. Building on an initial review of the empirical literature on equity in fisheries management, this exploration takes the form of a structured theoretical journey in two parts: first,; first, a travel back to philosophical theories of collective organization; and second, an examination of the notion of rights in the theory of justice and their applicability to practical situations. We argue that equity must be understood at the intersection of legal rights, collective stewardship, and human capabilities, rather than through a single normative lens. Building on the recent ocean governance literature, we propose the concept of the fishery social contract as a normative and practical framework to define rights, responsibilities, and fair distribution of costs and benefits.

CORRESPONDING AUTHOR:
Benjamin Dudouet
University of Santiago de Compostela, Spain
benjamin.dudouet@gmail.com

KEYWORDS:
Fisheries; Equity; Social contract; management of common pool resources

TO CITE THIS ARTICLE:
Dudouet, B., Thébaud, O., Kinds, A., & Villasante, S. (2026). Equity in the Management of Fisheries: A Theoretical Journey. *International Journal of the Commons*, 20(1), pp. 669–681. DOI: https://doi.org/10.5334/ijc.1722

INTRODUCTION

While common-pool resources management is in part a matter of technical ecology-based management of natural resources (Bromley, 1989; Bromley & Bishop, 1977), it is also a deeply political process that involves balancing competing claims to the allocations of use rights, negotiating legitimacy in the development of rules for such balancing, and addressing structural inequalities underlying the negotiation of these rules (Cepić et al., 2026; Gallastegui et al., 2002; Inarra & Skonhoft, 2008; Jentoft, 2000; Kampas, 2015b; Pinkerton & John, 2008; Schadeberg et al., 2024). As access to land, water, forests, and marine ecosystems becomes increasingly contested (Byer, 2022; Scheidel et al., 2020), decisions about resource allocation and use carry economic, social and political implications (Gupta & Lebel, 2020; Molina & Gourguet, 2025; Ribot & Peluso, 2003). These decisions also usually reflect broader power relationships and institutional norms (Campbell et al., 2024; Quimby & Levine, 2018; Ruano-Chamorro, 2023). Therefore, questions of equity emerge not only in relation to the distribution of benefits and burdens, but also in the realms of recognition and inclusion.

Fisheries management represents a particularly revealing and complex case of this broader challenge. Fisheries are inherently dynamic, mobile, and embedded in multiple layers of ecological, economic, and social relations (A. Charles, 2023; Link et al., 2017), implying adaptive management approaches that must account for multiple factors (e.g. ecosystem variability, market dynamics and community livelihoods). They involve a wide range of stakeholders (e.g., fishers, governments, NGOs, other marine activities, etc.), often with competing or conflicting claims (Guyader & Thébaud, 2001; Molina & Gourguet, 2025).

Because effective management depends on clearly defined rights of access to and use of resources, to address the race-to-fish problem and ensure resource conservation (Boncoeur & Troadec, 2003; Gordon, 1954; Ostrom, 1990; Scott, 1955), questions of equity inevitably emerge regarding how these rights are defined, allocated, and exercised (Doering et al., 2016; Gallastegui et al., 2002; Inarra & Skonhoft, 2008; Pinkerton, 2013; Tokunaga et al., 2023). In practice however, most studies of the policy instruments developed to address this race-to-fish question have prioritized efficiency objectives (Kampas, 2015a; Thébaud et al., 2012), often leaving the equity effects as secondary or implicit considerations.

While fisheries management can take various forms, it relies on collective organization to prevent the overuse of shared resources and ensure their long-term sustainability (Heck, 1975). Broadly speaking, collective organization can belong to one of three types: top-down command and control (Hardin, 1968), self-organised (Ostrom, 1990), or co-management (Charles, 2023). However, all three types build on underlying institutional structure that are rooted in collective conventions about how the common resource should be managed. Beyond ecological efficiency, fisheries management must thus incorporate considerations of social justice and equity (Asche et al., 2018; Crosman et al., 2022; Quimby & Levine, 2018; Smith et al., 2019).

Studies of institutional dynamics have further shown that management systems gain legitimacy only when equity dimensions are explicitly addressed (Jentoft, 2000; Léopold et al., 2019; Schadeberg et al., 2024). While our analysis focuses on fisheries management, this case is used as a concrete example of how equity challenges in common pool resources management may inform broader ocean governance issues.

Yet, despite this growing interest in equity in fisheries management as in broader ocean governance (Blythe et al., 2023; Crosman et al., 2022; FAO, 2023; Gammage et al., 2025; O'Brien et al., 2025; OECD, 2025), a clear and operational definition of equity in fisheries management is lacking. Although often invoked, it is rarely unpacked in terms that can guide concrete institutional design or policy choices (Dudouet et al., 2026).

Over the past three decades, the absolute number of scientific publications about fisheries incorporating the word "equity"[1] followed the same general increasing trend as the scientific literature on fisheries or fisheries management (Figure 1). Publications mentioning "fisheries and equity" were multiplied by 3 in number over the last 15 years (from around 10 papers per year in 2008 to 30 per year after 2020) while those addressing "fisheries, management, and Equity" have doubled.

Academic works from the 2010s show the importance of considering equity in fisheries management to enhance both efficiency and compliance (Bossier & Cisneros-Montemayor, 2025; Davis & Hanich, 2022; de Abreu-Mota et al., 2018; Quimby & Levine, 2018). Some studies focus on more specific fisheries management systems, such as community-based management (Klain et al., 2014; Yang & Pomeroy, 2017), or co-management systems (Chuenpagdee & Jentoft, 2007; d'Armengol et al., 2018; Hersoug, 2014; Jentoft, 1989; Quimby & Levine, 2018).

From 2015, the concept of blue justice has emerged to foreground questions of equity in ocean governance (namely how benefits and burdens are distributed, who is involved in decisions and what are the implications for current and future generations). From this period, scientific articles have focused on different blue justice dimensions (Bennett, 2022; Bennett et al., 2021, 2022; Blythe et al., 2023), such as procedural equity (referring to the decision-

making model) (Campbell & Hanich, 2015; Engen et al., 2021; Estévez et al., 2021; Voss et al., 2017), distributional equity (e.g. the allocation of costs and benefits) (Abolhassani, 2020; Andalecio, 2011; Engen et al., 2021; Gill et al., 2019; Grainger & Costello, 2016; Macinko, 1993; Squires, 2026), the legal aspects of equity (e.g. distribution of rights) (Oostdijk, 2021), and intergenerational equity (A. Barnett, 2018; A. J. Barnett & Eakin, 2015; Engler Palma, 2010). More recent literature also emphasizes equity as a management objective (Bryndum-Buchholz et al., 2021; Kroetz et al., 2022; Marshall et al., 2018) or how equity needs to be integrated into ocean governance (Crosman et al., 2022; Penca et al., 2025; Ruano-Chamorro, 2023).

Indeed, few studies examine how equity dimensions (procedural, distributional, legal and intergenerational) are operationalized in the allocation of fishing rights (Blythe et al., 2026; Carothers, 2011; Doering et al., 2016; Smith et al., 2019; Squires, 2026). This gap highlights the need for research that bridges the conceptual frameworks of equity with the real-world examples of fisheries management.

Addressing this gap requires conceptual tools that can link abstract principles of equity to everyday practices and institutional arrangements shaping fisheries management. One promising approach is to draw on the notion of "social contract", which provides a normative lens for understanding the implicit agreements and expectations that underpin relations within the social- ecological system (Berkes, 2021; Lam & Pauly, 2010). Indeed, regulating access to common-pool resources may be understood not as merely technical or institutional arrangements but as a form of social contract governing a broader human-nature relationship. The social contract emerges through the ways humans choose to govern, share, and exploit a common resource originally open and accessible to everyone (Rousseau, 1762; Dudouet et al., 2026). Our theoretical journey will start with Rousseau, who claimed that "the fruit belongs to all and the land to no one" (Rousseau, 1754). In the context of marine fisheries, one might say that fish belong to all while the sea belongs to no one, capturing the tension at the heart of fisheries, and more generally, of common-pool resource management. The challenges identified in addressing this tension underscore the need to conceive access to fisheries not through a single normative lens, but at the intersection of legal rights, collective stewardship, and human capabilities. This allows for the definition of a form of fisheries access right that is not only efficient or enforceable, but also socially just and responsive to diverse needs and contexts. A process that can be seen as a form of social contract (Lam and Pauly, 2010; Berkes, 2021), in which equity can be articulated not only as a theoretical principle but also as a practical commitment to fairness, reciprocity, and accountability in the allocation of rights and responsibilities.

Developing the concept of a fisheries social contract requires first returning to foundational theories of justice to pave the pathway to notions of equity building on a solid theoretical framework. Revisiting key philosophical contributions, this article initiates a theoretical journey to

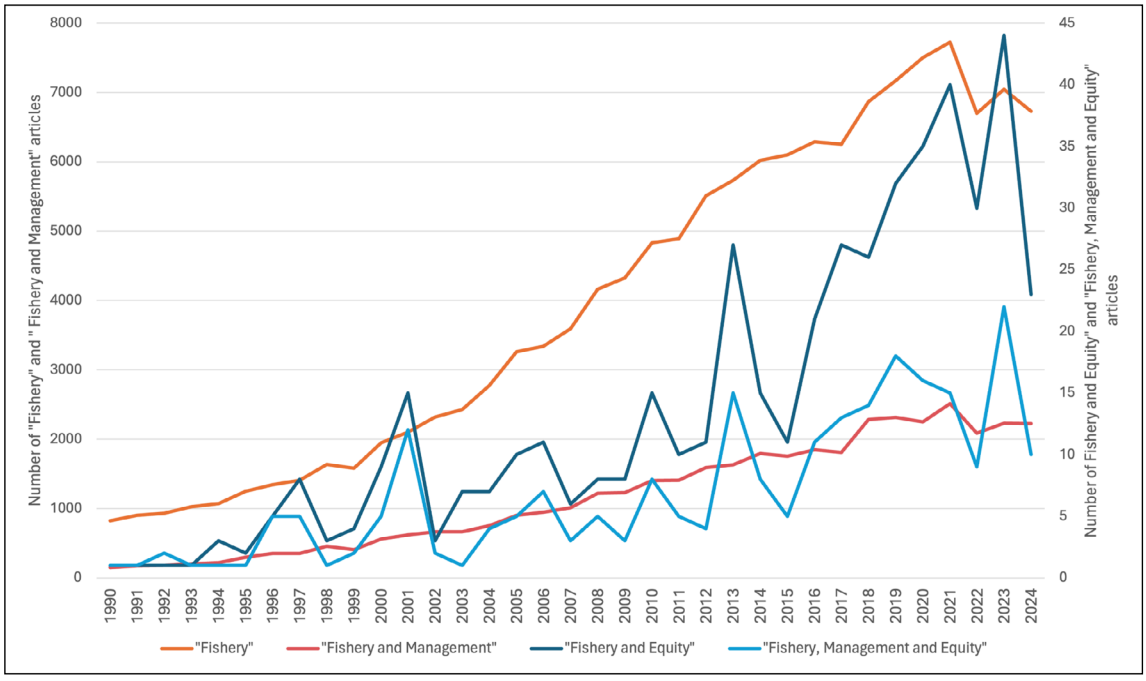


Figure 1 Global number of scientific articles on equity and related terms in the abstract released per year from 1990 to 2024. Source: Own elaboration from data obtained from Open Alex.

explore how foundational ideas about justice can inform the management of fisheries in terms of equity today. We adopt a targeted, question-driven approach to the selection of theory of justice literature, rather than aiming for an exhaustive review. We draw on theoretical contributions whose concepts directly illuminate central fisheries issues such as collective action and distribution of opportunities. This methodological orientation allows us to identify and mobilize only those theories of justice most relevant for understanding how equity can be operationalized in addressing the core issues raised by the management of access to common-pool resources such as marine fish stocks.

The first step of our theoretical journey explores the collective dimension of justice in fisheries management, as fisheries are common-pool resources that inherently require collective action and shared rules (Boncoeur & Troadec, 2003; Ostrom, 1990). Theories of the social contract (Lam & Pauly, 2010; Rawls, 1971; Rousseau, 1762) invite reflection on the conditions under which individuals consent to collective management in exchange for rights and mutual obligations (Hume, 1748; Le Jallé, 2020; Sandel, 2009), supported by the fisheries management tools and institutions (Illich, 1973).

The second step of our theoretical journey focuses on the notion of rights. Thinking about justice in fisheries management raises fundamental questions about the nature of the resource itself: is the right to fish a property right, a public entitlement, a collective good, or a basic capability necessary for well-being? Different theoretical lenses offer distinct ways of framing what is at stake. From a rights-based perspective (Locke, 1690; Neher et al., 1989; Scott, 1989; Charles, 2002) and a common perspective (Rawls, 1971; Sen, 1985). Each of these framings carries different implications for how equity is understood and operationalized in fisheries management.

FIRST STEP OF THE JOURNEY: COLLECTIVE DIMENSION OF JUSTICE IN FISHERIES MANAGEMENT

While the "equity in fisheries management" literature emphasizes the practical mechanisms of collective management, it often overlooks the normative foundation that justifies why and how these arrangements should be equitable. Theories of justice offer conceptual frameworks that illuminate the conditions under which collective fisheries management can be considered fair, legitimate, and sustainable. The term "equity" itself originates in Aristotle's conception of *epieikeia*, understood as the moderation of law-justice tempered with fairness, proportion, and indulgence (Harris, 2004). It emerges as a central virtue guiding the just distribution of rights, duties, costs, and benefits for social organization (Aristotle, n.d.; Guillon, 2018).

The social contract concept underscores that collective agreements are founded on mutual rights, duties, and consent (Rousseau, 1762). Rousseau (1762) further contends that the social contract preserves individual autonomy even as it establishes collective order, enabling individuals to transcend self-interest and cultivate a shared sense of responsibility and common good. Alain (2016) also emphasizes that a just social contract must be transparent, honest, and reciprocal, principles that are essential for ensuring equity in fisheries management. Hume (1748) further grounds justice in the idea of consent, which fosters a sense of common interest and legitimizes rules through collective adherence (Le Jallé, 2020). Rawls (1971) advances this contractualist reasoning by proposing three principles of justice: equal liberty, equality of opportunity, and the difference principle—which allows inequalities only when they benefit the least advantaged, a logic reinforced by the Rawlsian "veil of ignorance," which provides an impartial standpoint. Applied to fisheries management, these principles underscore the need for institutional arrangements that guarantee equal participation, access to benefits, and special consideration for the most vulnerable resource users. These contractualist perspectives can provide a normative foundation for addressing equity in fisheries management.

Illich (1973) reframes equity as the "conviviality" of tools or institutions: governance systems should enhance autonomy, avoid domination, and expand individuals' capacities for action. Viewed in this light, fisheries management systems also function as convivial tools whose equity depends on empowering fishers to participate, remain independent, and access resources equitably. Integrating the notion of conviviality allows to assess not only the equity of management rules but also how institutions shape human agency.

In the context of managing common-pool resources, Hardin (1968) argued that preventing the tragedy of the commons requires forms of mutual coercion, meaning collectively accepted and enforced rules. Ostrom (1990) demonstrates that decentralized and community-based institutions can achieve sustainable governance when they satisfy design principles (clearly defined boundaries, context-sensitive rules, collective-choice arrangements, monitoring, graduated sanctions, and conflict-resolution mechanisms) without coercion.

More recently, Sandel (2009) highlights that without genuine consent, social contracts lose legitimacy, since obligations and duties cannot be separated from moral

commitments. Building on these philosophical foundations, Jentoft (1989, 2000), Berkes (2001) and Nielsen (2003) apply theories of equity and legitimacy directly to fisheries. The authors demonstrate that collective management is sustainable only when stakeholders perceive the system as fair and inclusive. Legitimacy is not given but constructed, through consent and shared agreement (Bennett et al., 2019; d'Armengol et al., 2018). Without addressing equity, collective arrangements often fail to gain compliance or trust (Grafton, 2005; Gross-Camp et al., 2012). Hence, the intersection of equity, justice, and consent emerges as the desirable normative backbone of collective fisheries governance, bridging philosophical theories with applied institutional design.

The analysis of philosophical and institutional foundations of collective fisheries management thus demonstrates that sustainability extends beyond ecological sustainability and economic efficiency. Legitimacy, acceptability, and effectiveness of management systems critically depend on embedding equity and consent within institutional arrangements. Philosophical perspectives also highlight that equity in common-pool resources governance extends beyond fair distribution of costs and benefits to include autonomy, participatory involvement, and the empowerment of users to make decisions and take actions (Lam & Pauly, 2010; Ribot & Peluso, 2003; Sen, 2009). Compliance with rules and trust among stakeholders emerge when management systems are perceived as equitable, inclusive, and responsive to communities' needs (Quimby & Levine, 2018; Yang & Pomeroy, 2017). Beyond the fisheries literature, extensive economic research on cooperative game theory (Intriligator & Luterbacher, 1994; Moulin, 1995) and legal scholarship (Van Rooij & Sokol, 2021) on equity and compliance not discussed here, also provide important insights into how equity shapes cooperation.

Equity, consent and legitimacy are therefore not peripheral aspects of management; they constitute its normative foundation (Jentoft, 2000; Ruano-Chamorro, 2023).

STEP TWO: THE ROLE OF RIGHTS IN FISHERIES MANAGEMENT

Building on this understanding, our journey naturally turns to another crucial dimension of justice in fisheries management: the question of fishing rights. If collective management relies on active participation and voluntary consent, it becomes essential to examine how rights – to access to and use of resources or to decision-making – are defined, allocated and safeguarded. The second step of our journey thus examines the role of rights in fisheries management, focusing on how theories of justice illuminate their design, distribution and legitimacy.

The establishment of access rights is one of the cornerstones of effective fisheries management (Gordon, 1954; Scott, 1989), as it prevents the "race to fish" (Boncoeur & Troadec, 2003) and enables sustainable exploitation of marine resources (Elleby et al., 2025). Rights can be interpreted through different philosophical lenses, offering distinct insights into how equity can be conceptualized in fisheries management.

In Locke's liberal tradition, property originates in the appropriation of natural resources through labor, but its legitimacy depends on leaving enough and as good for others (Locke, 1690). Appropriation through labor paves the way for extensive, even total appropriation, insofar as the exertion of labor can be invoked as a sufficient justification for exclusive ownership. Thus, the creation of property is subordinated to the objective of preserving the goods necessary for the individual's existence and well-being (Cretois, 2020). Applied to fisheries, this perspective implies that the allocation of rights (quotas, licenses, etc.) can only be considered legitimate if it safeguards the subsistence and well-being of individual fishers. However, a labor-based reading could be interpreted as legitimizing first-come entitlement so long as "enough" remains for others, prompting the unresolved question of who defines "enough".

From a Rawlsian perspective, fishing opportunities can be seen as primary social goods. Fishing rights meet Rawls's definition, as they provide the means for subsistence, income generation, and long-term security for fishing businesses (Gray, 2024). These goods are what rational individuals behind a "veil of ignorance" would seek to distribute fairly in designing a just social contract (Rawls, 1971). Equity in this framework requires that the distribution of access rights be arranged to benefit the least advantaged stakeholders (Rawls, 1971), which also resonates with the literature on inequality of opportunity (Squires, 2026). The perspective also connects with Sen's idea of open impartiality, which broadens the evaluative standpoint beyond a closed focal group (Parfit, 2011; Sen, 2009).

Ribot and Peluso (2003) highlight that access is not reducible to property alone but rather encompasses a broader array of mechanisms (legal, social, political, and economic) through which actors gain the ability to benefit from resources. This perspective also brings into focus inequality of opportunity, the ability to benefit from the right depending on individual capacities (Squires, 2026).

Indeed, in fisheries, licenses, quotas, or territorial use rights are social constructions. They are not simply "owned" in a Lockean sense (Locke, 1690), but are

embedded in institutional frameworks and collective arrangements, with equity concerns raised when design choices privilege some users over others (Pinkerton, 2013; Pinkerton & John, 2008).

Amartya Sen (1985) and Martha Nussbaum (2011) extended the debate by shifting the focus from goods to capabilities. Justice, in this view, does not merely lie in the formal allocation of fishing rights but in the real, practical ability of stakeholders to use them. A quota that cannot be operationalized does not translate into genuine freedom. From a fisheries perspective, this implies evaluating not only the formal distribution of rights but also whether diverse actors have the practical means to exercise them equitably.

The Aristotelian idea of telos enriches this perspective by framing justice in relation to the "good life". For Aristotle (Aristotle, n.d.; Guillon, 2018), and for Sen's reinterpretation (Sen, 2009), human flourishing involves fulfilling one's potential as a rational and social being within a just community. In fisheries, this implies that rights should not only prevent overexploitation but also contribute to the broader well-being of fishing communities.

Fishing access rights, while formally neutral, through their allocation, can deepen existing disparities when they disproportionately advantage certain operators (Bellanger et al., 2016; Kinds et al., 2021). Although legal frameworks can be designed to incorporate justice principles and mitigate such asymmetries, in many fisheries these corrective mechanisms remain limited or unevenly applied (Kinds et al., 2021; Pinkerton & Davis, 2015). Such critiques remind us that equity in fisheries management cannot be reduced to legal allocation alone but must confront structural asymmetries in wealth, capital and bargaining power.

From a Marxist standpoint, rights are inseparable from power relations and the modes of production within which they are embedded. In the context of fisheries, access rights are often tied to a vessel- a means of production (Bellanger et al., 2016; Campling et al., 2012; Campling & Havice, 2014; Kinds et al., 2021), and may themselves acquire the status of capital (Campling & Colás, 2018). Under certain regulatory regimes (specifically Individual Transferable Quotas in New Zealand or Iceland (Marchal et al., 2016)), fishing rights are commodified and can be traded, accumulated, or speculated upon (Gray, 2024; Pinkerton & Edwards, 2009).

In this sense, the right to fish does not merely regulate access to a resource. It becomes a private ownership title over a productive capacity, which can be seen as reinforcing relations of domination and potential forms of alienation (Hérichon, 1970).

Overall, theories of justice provide complementary insights into the legitimacy and equity of fishing rights. Taken together, these perspectives underscore that equitable fisheries management cannot be reduced to formal allocation alone, but requires attention to distributional justice, practical capabilities, community well-being, and structural asymmetries.

LESSONS LEARNT: TOWARD A FISHERIES SOCIAL CONTRACT

Building on the above theoretical journey, we propose a conceptual framework for defining an equitable organization of fisheries management, articulated through the idea of a social contract. Within this framework, equity is inseparable from both legitimacy and consent.

Legitimacy is not solely a product of administrative efficiency or technical performance; rather, it is grounded in the extent to which management processes and decisions align with norms, values, and expectations of the relevant community of actors (Jentoft, 2000). In the context of equity analysis, legitimacy ensures that stakeholders perceive management actions as justifiable, participatory, and reflective of collectively established principles.

Equally important is the concept of **consent,** which complements legitimacy by ensuring that stakeholders not only recognize but also actively endorse and comply with management rules. It refers to the voluntary and informed agreement of stakeholders to accept and comply with management rules and institutional arrangements. It also embodies the perception that decision-making processes are equitable (Sandel, 2009), ensuring that obligations and responsibilities are morally and socially endorsed rather than imposed (Hume, 1748).

Equity lies at the intersection of consent and legitimacy: it reinforces legitimacy while being itself strengthened by the consent to the social contract, whose purpose is to establish the rules managing the distribution of rights, responsibilities, costs and benefits within a fisheries management system.

However, equity extends beyond this institutional foundation, as it entails an active safeguard function aimed at addressing persistent power asymmetries that may remain, even in contexts perceived as legitimate and consensual.

Together, legitimacy and consent form the ethical and social foundation of equitable management, linking normative principles with concrete institutional design and management practices. Consent creates legitimacy, as stakeholders' voluntary agreement and endorsement of rules reinforce the credibility and authority of management. Legitimacy, in turn, aligns management processes with shared norms, values and expectations, ensuring that

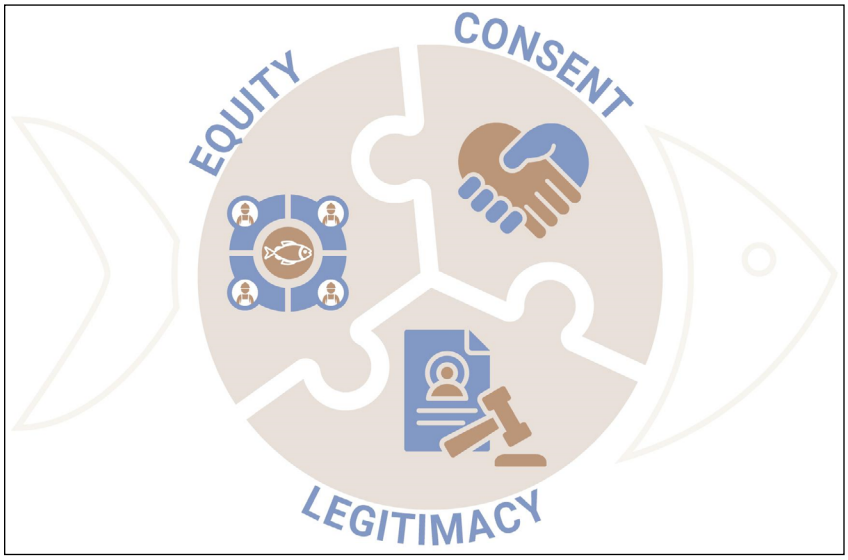


Figure 2 Fisheries social contract representation (Own elaboration).

decisions are perceived as equitable. This alignment makes management more equitable, and the presence of equity and legitimacy further strengthens consent, as stakeholders are more likely to support and comply with rules they consider equitable and legitimate. In this way, consent, legitimacy, and equity form a reinforcing cycle, each sustaining and enhancing the others (Figure 2). The framework explicitly unifies the three equity dimensions already established in fisheries science (Sumaila & Villasante, 2025) by linking legitimacy to procedural equity, consent to recognitional equity and rights to distributional equity.

Equity is then defined as fairness in the organization of fisheries management, understood as equitable only insofar as it is grounded in legitimate institutions and consented management arrangements, and thus reflects a fair distribution of rights, responsibilities, costs and benefits. This articulation provides the conceptual basis from which operational criteria for assessing equity can subsequently be derived (Dudouet et al., 2026).

KEY PERSPECTIVES ON EQUITY IN FISHERIES MANAGEMENT

The concept of equity in fisheries management raises fundamental questions at the intersection of philosophy, theories of justice, governance and common-pool resources. Philosophical, theory of justice and governance perspectives show that equity is not only about distributive fairness, but also about the legitimacy of the rules that structure access to shared resources (Lam & Pauly, 2010; Ribot & Peluso, 2003; Sen, 2009).

Within the scientific literature on ocean governance and fisheries management (Cochrane, 2021; Das, 2023), equity is typically approached through three main dimensions: distributive equity, procedural equity, and recognitional equity (Sumaila & Villasante, 2025), all of which remain a relatively recent and still limited area of inquiry (Figure 1). While this literature provides valuable empirical insights, discussions of equity in fisheries are still developing and often examine specific dimensions separately, without an overarching structure that links empirical observations to broader normative principles.

This work contributes to this research gap by proposing an integrative analytical framework that bridges normative philosophical reasoning and contemporary empirical approaches to fisheries management. The framework helps systematically integrate these diverse perspectives into a coherent analytical structure. It conceptualizes fisheries not merely as economic systems or regulatory arrangements, but as collective social contracts in which access rights are granted in exchange for responsibilities, and access is legitimized through principles of justice, reciprocity, and shared stewardship.

While philosophical frameworks provide valuable normative guidance, they are often abstract and difficult to operationalize across diverse realities of management settings. This work opens new perspectives on equity in fisheries management and raises further questions about how social contract principles can be operationalized in diverse fisheries contexts.

Applying these insights in practice requires differentiating between types of fisheries. In large-scale commercial fisheries, equity concerns often revolve around balancing efficiency and economic returns with fair access for different actors, including small-scale operators (Abbott et al., 2022; Krabbe et al., 2022; Prellezo et al., 2023). Given that large-scale fisheries often take on an international

dimension, equity concerns also extend to the conditions for international cooperation, where fair access can also be considered as a problem of inequality of opportunity among states and fleets (Hanich et al., 2015; Kampas, 2015a; Seto et al., 2021; Squires, 2026). In subsistence or small-scale fisheries, however, equity takes on a different meaning: access is directly tied with livelihoods, cultural identity, and food security (d'Armengol et al., 2018; Dias, 2023; Gammage et al., 2025).

In addition, equity is not a static attribute that can be defined once and for all: rather it can be conceived of as a dynamic and reflexive principle through which power relations, distribution outcomes, and opportunities to benefit are continuously questioned, adjusted and renegotiated. At present, there are no clear or standardized methodologies and tools for evaluating equity within fisheries management systems, which limits the ability to translate normative principles into practical assessments. This lack of operational clarity makes it challenging to compare cases, measure and monitor progress, or design policy instruments that effectively integrate equity considerations.

Building on our conceptual framework, it becomes possible to develop an evaluation approach that captures the different equity dimensions and to test it in real-life contexts. Such a dedicated evaluation framework should allow analysing both the creation and implementation of management rules across different institutional settings, as well as how these rules distribute costs, benefits, rights and responsibilities among stakeholders. This approach should provide a concrete foundation for the development of an operational evaluation method for existing fisheries management systems, bridging philosophical perspectives and fisheries science in context-sensitive applications that respect both universal principles and local specificities.

NOTE

1 And related terms of fisheries management "Equity", "Fishery and Equity", "Fishery and management", "Fishery, Management and Equity".

ACKNOWLEDGEMENTS

The authors gratefully acknowledge Stéphanie Hernandez from "Azuli Design", for the creation of Figure 2.

We would like to express our sincere gratitude to the reviewers for their thoughtful, detailed and constructive feedback. We are grateful for the time and expertise they dedicated to this review.

FUNDING INFORMATION

This work has been funded by the EqualSea (Transformative adaptation towards ocean equity) project, under the European Horizon 2020 research and innovation Program, ERC Consolidator (grant no. 101002784) European Research Council.

COMPETING INTERESTS

The authors have no competing interests to declare.

AUTHOR AFFILIATIONS

Benjamin Dudouet orcid.org/0009-0003-4475-2394
University of Santiago de Compostela, Spain
Olivier Thébaud orcid.org/0000-0001-8665-3827
Ifremer, Univ Brest, CNRS, UMR 6308 AMURE, Unité d'Economie Maritime, IUEM, Plouzané, France
Arne Kinds orcid.org/0000-0002-8156-1429
EqualSea Lab – CRETUS, Universidade de Santiago de Compostela, Spain
Sebastian Villasante orcid.org/0000-0001-6296-4479
EqualSea Lab – CRETUS, Universidade de Santiago de Compostela, Spain

REFERENCES

Abbott, J. K., Leonard, B., & **Garber-Yonts, B.** (2022). The distributional outcomes of rights-based management in fisheries. *Proceedings of the National Academy of Sciences*, *119*(2), e2109154119. https://doi.org/10.1073/pnas.2109154119

Abolhassani, A. M. (2020). *Equity in tuna regional fisheries management organisations: The law and practice on differentiation in Western Pacific and Indian Ocean tuna fisheries* [Thesis, University of Tasmania]. https://doi.org/10.25959/100.00035893

Alain. (2016). Chapitre IV. De la justice. *Folio Sagesses*, 60–63.

Andalecio, M. N. (2011). Including coastal resource users in fisheries management evaluation of San Miguel Bay, Philippines. *Ocean & Coastal Management*, 54(10), 760–770. https://doi.org/10.1016/j.ocecoaman.2011.08.004

Aristotle. (n.d.). *Aristotle, Nicomachean Ethics, Book 5*. Retrieved 19 September 2024, from https://www.perseus.tufts.edu/hopper/text?doc=Perseus%3Atext%3A1999.01.0054%3Abook%3D5

Asche, F., Garlock, T. M., Anderson, J. L., Bush, S. R., Smith, M. D., Anderson, C. M., Chu, J., Garrett, K. A., Lem, A., Lorenzen,

K., Oglend, A., Tveteras, S., & **Vannuccini, S.** (2018). Three pillars of sustainability in fisheries. *Proceedings of the National Academy of Sciences*, *115*(44), 11221–11225. https://doi.org/10.1073/pnas.1807677115

Barnett, A. (2018). Recommendations for full-spectrum sustainability in Canadian lobster integrated management plans based on a socioeconomic analysis of Barrington, Nova Scotia. *Ecology and Society*, *23*(1). https://doi.org/10.5751/ES-09981-230136

Barnett, A. J., & **Eakin, H. C.** (2015). "We and us, not I and me": Justice, social capital, and household vulnerability in a Nova Scotia fishery. *Applied Geography*, *59*, 107–116. https://doi.org/10.1016/j.apgeog.2014.11.005

Bellanger, M., Macher, C., & **Guyader, O.** (2016). A new approach to determine the distributional effects of quota management in fisheries. *Fisheries Research*, *181*, 116–126. https://doi.org/10.1016/j.fishres.2016.04.002

Bennett, N. J. (2022). Mainstreaming Equity and Justice in the Ocean. *Frontiers in Marine Science*, *9*. https://doi.org/10.3389/fmars.2022.873572

Bennett, N. J., Cisneros-Montemayor, A. M., Blythe, J., Silver, J. J., Singh, G., Andrews, N., Calò, A., Christie, P., Di Franco, A., Finkbeiner, E. M., Gelcich, S., Guidetti, P., Harper, S., Hotte, N., Kittinger, J. N., Le Billon, P., Lister, J., López de la Lama, R., McKinley, E., … Sumaila, U. R. (2019). Towards a sustainable and equitable blue economy. *Nature Sustainability*, *2*(11), 991–993. https://doi.org/10.1038/s41893-019-0404-1

Bennett, N. J., Katz, L., Yadao-Evans, W., Ahmadia, G. N., Atkinson, S., Ban, N. C., Dawson, N. M., de Vos, A., Fitzpatrick, J., Gill, D., Imirizaldu, M., Lewis, N., Mangubhai, S., Meth, L., Muhl, E.-K., Obura, D., Spalding, A. K., Villagomez, A., Wagner, D., … Wilhelm, A. (2021). Advancing Social Equity in and Through Marine Conservation. *Frontiers in Marine Science*, *8*. https://doi.org/10.3389/fmars.2021.711538

Bennett, N. J., Villasante, S., Espinosa-Romero, M. J., Lopes, P. F. M., Selim, S. A., & **Allison, E. H.** (2022). Social sustainability and equity in the blue economy. *One Earth*, *5*(9), 964–968. https://doi.org/10.1016/j.oneear.2022.08.004

Berkes, F. (2001). *Managing Small-Scale Fisheries: Alternative Directions and Methods*. https://idrc-crdi.ca/en/books/managing-small-scale-fisheries-alternative-directions-and-methods

Berkes, F. (2021). *TOWARD A NEW SOCIAL CONTRACT: community-based Resource Management and Small-scale Fisheiries*.

Blythe, J. L., Claudet, J., Gill, D., Ban, N. C., Epstein, G., Gurney, G. G., Jupiter, S. D., Mahajan, S. L., Mangubhai, S., Turner, R., Bennett, N. J., D'Agata, S., Franks, P., Lau, J., Ahmadia, G., Andrachuk, M., Annasawmy, P., Brun, V., Darling, E. S., … Zafra-Calvo, N. (2026). The Ocean Equity Index. *Nature*, *650*(8100), 123–128. https://doi.org/10.1038/s41586-025-09976-y

Blythe, J. L., Gill, D. A., Claudet, J., Bennett, N. J., Gurney, G. G., Baggio, J. A., Ban, N. C., Bernard, M. L., Brun, V., Darling, E. S., Franco, A. D., Epstein, G., Franks, P., Horan, R., Jupiter, S. D., Lau, J., Lazzari, N., Mahajan, S. L., Mangubhai, S., … Zafra-Calvo, N. (2023). Blue justice: A review of emerging scholarship and resistance movements. *Cambridge Prisms: Coastal Futures*, *1*, e15. https://doi.org/10.1017/cft.2023.4

Boncoeur, J., & **Troadec, J. P.** (2003). *La réforme de la politique commune et de l'avenir de la pêche*.

Bossier, S., & **Cisneros-Montemayor, A. M.** (2025). Integrating equity and justice in marine ecosystem models: An incremental but meaningful approach. *Ecological Modelling*, *503*, 111058. https://doi.org/10.1016/j.ecolmodel.2025.111058

Bromley, D. W. (1989). *Management of Common Property Natural Resources: Some Conceptual and Operational Fallacies*. https://www.semanticscholar.org/paper/Management-of-Common-Property-Natural-Resources%3A-Bromley/9a3439c7ea20e6f44b18d74a0cbdab3a8fde111b

Bromley, D. W., & **Bishop, R. C.** (1977). From Economic Theory to Fisheries Policy: Conceptual Problems and Management Prescriptions. 281–301.

Bryndum-Buchholz, A., Tittensor, D. P., & **Lotze, H. K.** (2021). The status of climate change adaptation in fisheries management: Policy, legislation and implementation. *Fish and Fisheries*, *22*(6), 1248–1273. https://doi.org/10.1111/faf.12586

Byer, A. (2022). *Before Property: A Prehistory of Property Rights in Land* (SSRN Scholarly Paper No. 4293847). Social Science Research Network. https://doi.org/10.2139/ssrn.4293847

Campbell, B., & **Hanich, Q.** (2015). Principles and practice for the equitable governance of transboundary natural resources: Cross-cutting lessons for marine fisheries management. *Maritime Studies*, *14*(1), 8. https://doi.org/10.1186/s40152-015-0028-7

Campbell, B., Steenbergen, D., Li, O., Sami, A., Nikiari, B., Delisle, A., Neihapi, P., Uriam, T., & **Andrew, N.** (2024). Characterising a diversity of coastal community fisheries in Kiribati and Vanuatu. *Fish and Fisheries*, *25*(5), 837–857. https://doi.org/10.1111/faf.12849

Campling, L., & **Colás, A.** (2018). Capitalism and the sea: Sovereignty, territory and appropriation in the global ocean. *Environment and Planning D: Society and Space*, *36*(4), 776–794. https://doi.org/10.1177/0263775817737319

Campling, L., & **Havice, E.** (2014). The problem of property in industrial fisheries. *The Journal of Peasant Studies*, *41*(5), 707–727. https://doi.org/10.1080/03066150.2014.894909

Campling, L., Havice, E., & **McCall Howard, P.** (2012). *The Political Economy and Ecology of Capture Fisheries: Market Dynamics, Resource Access and Relations of Exploitation and Resistance*. https://doi.org/10.1111/j.1471-0366.2011.00356.x

Carothers, C. (2011). Equity and Access to Fishing Rights: Exploring the Community Quota Program in the Gulf of Alaska. *Human Organization*, *70*(3), 213–223. https://doi.org/10.17730/humo.70.3.d686u2r7j2267055

Cepić, D., Puzek, I., & **Ballesteros, H. M.** (2026). What affects legitimacy in capture fisheries? Analysis of socio-structural factors. *Marine Policy*, *186*, 107022. https://doi.org/10.1016/j.marpol.2025.107022

Charles, A. (2023). *Sustainable Fishery Systems*. John Wiley & Sons. https://doi.org/10.1002/9781119511847

Charles, A. T. (2002). *A Fishery Manager's Guidebook—Management Measures and Their Application—Chapter 6 (Use rights and responsible fisheries: Limiting access and harvesting through right-based management)*. https://www.fao.org/4/y3427e/y3427e08.htm

Chuenpagdee, R., & **Jentoft, S.** (2007). Step zero for fisheries co-management: What precedes implementation. *Marine Policy*, *31*(6), 657–668. https://doi.org/10.1016/j.marpol.2007.03.013

Cochrane, K. L. (2021). Reconciling sustainability, economic efficiency and equity in marine fisheries: Has there been progress in the last 20 years? *Fish and Fisheries*, *22*(2), 298–323. https://doi.org/10.1111/faf.12521

Cretois, P. (2020). *La part commune* (Amsterdam). https://www.editionsamsterdam.fr/la-part-commune/

Crosman, K. M., Allison, E. H., Ota, Y., Cisneros-Montemayor, A. M., Singh, G. G., Swartz, W., Bailey, M., Barclay, K. M., Blume, G., Colléter, M., Fabinyi, M., Faustman, E. M., Fielding, R., Griffin, P. J., Hanich, Q., Harden-Davies, H., Kelly, R. P., Kenny, T.-A., Klinger, T., … Spalding, A. K. (2022). Social equity is key to sustainable ocean governance. *Npj Ocean Sustainability*, *1*(1), 4. https://doi.org/10.1038/s44183-022-00001-7

d'Armengol, L., Prieto Castillo, M., Ruiz-Mallén, I., & **Corbera, E.** (2018). A systematic review of co-managed small-scale fisheries: Social diversity and adaptive management improve outcomes. *Global Environmental Change*, *52*, 212–225. https://doi.org/10.1016/j.gloenvcha.2018.07.009

Dias, J. (2023). Blue Economy, Blue Growth, Social Equity and Small-scale Fisheries: A Global and National Level Review. *Studies in Social Science Research*, *4*(1), 38. https://doi.org/10.22158/sssr.v4n1p38

Davis, R. A., & **Hanich, Q.** (2022). Transparency in fisheries conservation and management measures. *Marine Policy*, *136*, 104088. https://doi.org/10.1016/j.marpol.2020.104088

de Abreu-Mota, M. A., Medeiros, R. P., & **Noernberg, M. A.** (2018). Resilience thinking applied to fisheries management: Perspectives for the mullet fishery in Southern-Southeastern Brazil. *Regional Environmental Change*, *18*(7), 2047–2058. https://doi.org/10.1007/s10113-018-1323-9

Doering, R., Goti, L., Fricke, L., & **Jantzen, K.** (2016). Equity and ITQs: About Fair Distribution in Quota Management Systems in Fisheries. *Environmental Values*, *25*(6), 729–749. https://doi.org/10.3197/096327116X14736981715742

Dudouet, B., Thébaud, O., Kinds, A., & **Villasante, S.** (2026). A practical approach to assess equity in fisheries management. *Npj Ocean Sustainability*. https://doi.org/10.1038/s44183-026-00210-4

Elleby, C., Domínguez, I. P., Nielsen, R., Nielsen, M., & **Hoff, A.** (2025). Introducing maximum sustainable yield targets in fisheries could enhance global food security. *Communications Earth & Environment*, *6*(1), 33. https://doi.org/10.1038/s43247-024-01851-4

Engen, S., Hausner, V. H., Gurney, G. G., Broderstad, E. G., Keller, R., Lundberg, A. K., Murguzur, F. J. A., Salminen, E., Raymond, C. M., Falk-Andersson, J., & **Fauchald, P.** (2021). Blue justice: A survey for eliciting perceptions of environmental justice among coastal planners' and small-scale fishers in Northern-Norway. *PLOS ONE*, *16*(5), e0251467. https://doi.org/10.1371/journal.pone.0251467

Engler Palma, M. (2010). Allocation of Fishing Opportunities in Regional Fisheries Management Organizations: A Legal Analysis in the Light of Equity. *LLM Theses*. https://digitalcommons.schulichlaw.dal.ca/llm_theses/9

Estévez, R. A., Jerez, G., & **Gelcich, S.** (2021). Assessing Procedural Justice in the Administration of Small-Scale Benthic Fisheries in Chile. *Frontiers in Marine Science*, *8*. https://doi.org/10.3389/fmars.2021.636120

FAO. (2023). *Illuminating Hidden Harvests*. FAO; Duke University; WorldFish. https://doi.org/10.4060/cc4576en

Gallastegui, M. C., Iñarra, E., & **Prellezo, R.** (2002). Bankruptcy of Fishing Resources: The Northern European Anglerfish Fishery. *Marine Resource Economics*, *17*(4), 291–307. https://doi.org/10.1086/mre.17.4.42629371

Gammage, T., Gurney, G. G., Diedrich, A., & **Dudayev, R.** (2025). Equity Through Co-Management in Small-Scale Fisheries—A Review. *Fish and Fisheries*, *26*(3), 425–443. https://doi.org/10.1111/faf.12889

Gill, D. A., Cheng, S. H., Glew, L., Aigner, E., Bennett, N. J., & **Mascia, M. B.** (2019). Social Synergies, Tradeoffs, and Equity in Marine Conservation Impacts. *Annual Review of Environment and Resources*, *44*, 347–372. https://doi.org/10.1146/annurev-environ-110718-032344

Gordon, H. S. (1954). The Economic Theory of a Common-Property Resource: The Fishery. *The Journal of Political Economy*, *62*(2), 124–142. https://doi.org/10.1086/257497

Grafton, R. Q. (2005). Social capital and fisheries governance. *Ocean & Coastal Management*, *48*(9), 753–766. https://doi.org/10.1016/j.ocecoaman.2005.08.003

Grainger, C. A., & **Costello, C.** (2016). Distributional Effects of the Transition to Property Rights for a Common-Pool Resource. *Marine Resource Economics*, *31*(1), 1–26. https://doi.org/10.1086/684132

Gray, T. (2024). Fishing for Principles: The Fairness of Fishing Quota Allocations. *Sustainability*, *16*(12), 5064. https://doi.org/10.3390/su16125064

Gross-Camp, N. D., Martin, A., McGuire, S., Kebede, B., & **Munyarukaza, J.** (2012). Payments for ecosystem services in an African protected area: Exploring issues of legitimacy, fairness, equity and effectiveness. *Oryx*, *46*(1), 24–33. https://doi.org/10.1017/S0030605311001372

Guillon, P. R. P. (2018). *L'EQUITE DANS LA PHILOSOPHIE D'ARISTOTE ET LE DROIT*.

Gupta, J., & **Lebel, L.** (2020). Access and allocation in earth system governance: Lessons learnt in the context of the Sustainable Development Goals. *International Environmental Agreements: Politics, Law and Economics*, *20*(2), 393–410. https://doi.org/10.1007/s10784-020-09486-4

Guyader, O., & **Thébaud, O.** (2001). Distributional issues in the operation of rights-based fisheries management systems. *Marine Policy*, *25*(2), 103–112. https://doi.org/10.1016/S0308-597X(00)00041-5

Hanich, Q., Campbell, B., Bailey, M., & **Molenaar, E.** (2015). Research into fisheries equity and fairness—Addressing conservation burden concerns in transboundary fisheries. *Marine Policy*, *51*, 302–304. https://doi.org/10.1016/j.marpol.2014.09.011

Hardin, G. (1968). The Tragedy of the Commons: The population problem has no technical solution; it requires a fundamental extension in morality. *Science*, *162*(3859), 1243–1248. https://doi.org/10.1126/science.162.3859.1243

Harris, E. M. (2004). Le rôle de l'epieikeia dans les tribunaux athéniens. *Revue Historique de Droit Français et Étranger (1922-)*, *82*(1), 1–13.

Heck, C. B. (1975). Collective arrangements for managing ocean fisheries. *International Organization*, *29*(3), 711–743. https://doi.org/10.1017/S002081830003174X

Hérichon, E. (1970). *Le concept de propriété dans la pensée de Karl Marx*. https://doi.org/10.3406/homso.1970.1325

Hersoug, B. (2014). The social dimension: The challenge of dealing with equity. In S. M. Garcia, J. Rice, & A. Charles (Eds), *Governance of Marine Fisheries and Biodiversity Conservation* (1st edn, pp. 82–95). Wiley. https://doi.org/10.1002/9781118392607.ch6

Hume, D. (1748). *Essays Moral, Political, Literary (LF ed.) | Online Library of Liberty*. https://oll.libertyfund.org/titles/hume-essays-moral-political-literary-lf-ed

Illich, I. (1973). *La convivialité*.

Inarra, E., & **Skonhoft, A.** (2008). Restoring a Fish Stock: A Dynamic Bankruptcy Problem. *Land Economics*, *84*(2), 327–339. https://doi.org/10.3368/le.84.2.327

Intriligator, M. D., & **Luterbacher, U.** (1994). Cooperative Models in International Relations. In M. D. Intriligator & U. Luterbacher (Eds.), *Cooperative Models in International Relations Research* (pp. 1–5). Springer US. https://doi.org/10.1007/978-1-4615-2790-9_1

Jentoft, S. (1989). Fisheries co-management: Delegating government responsibility to fishermen's organizations. *Marine Policy*, *13*(2), 137–154. https://doi.org/10.1016/0308-597X(89)90004-3

Jentoft, S. (2000). Legitimacy and disappointment in fisheries management. *Marine Policy*, *24*(2), 141–148. https://doi.org/10.1016/S0308-597X(99)00025-1

Kampas, A. (2015a). Combining fairness and stability concerns for global commons: The case of East Atlantic and Mediterranean tuna. *Ocean & Coastal Management*, *116*, 414–422. https://doi.org/10.1016/j.ocecoaman.2015.08.014

Kampas, A. (2015b). On the Allocation of Possible EU Total Allowable Catches (TAC) for the Mediterranean Swordfish: An Envy-Free Criterion and Equitable Procedure. *Journal of Agricultural Economics*, *66*(1), 170–191. https://doi.org/10.1111/1477-9552.12064

Kinds, A., Le Floc'h, P., Speelman, S., & **Guyader, O.** (2021). Challenging the 'artisanal vs. industrial' dichotomy in French Atlantic fisheries: An organizational typology of multi-vessel fishing firms. *Marine Policy*, *134*, 104753. https://doi.org/10.1016/j.marpol.2021.104753

Klain, S. C., Beveridge, R., & **Bennett, N. J.** (2014). Ecologically sustainable but unjust? Negotiating equity and authority in common-pool marine resource management. *Ecology and Society*, *19*(4). https://www.jstor.org/stable/26269687

Krabbe, N., Langlet, D., Belgrano, A., & **Villasante, S.** (2022). Reforming International Fisheries Law Can Increase Blue Carbon Sequestration. *Frontiers in Marine Science*, *9*. https://doi.org/10.3389/fmars.2022.800972

Kroetz, K., Nøstbakken, L., & **Quaas, M.** (2022). The Future of Wild-Caught Fisheries: Expanding the Scope of Management. *Review of Environmental Economics and Policy*, *16*(2), 241–261. https://doi.org/10.1086/721097

Lam, M., & **Pauly, D.** (2010). Who is Right to Fish? Evolving a Social Contract for Ethical Fisheries. *Ecology and Society*, *15*(3). https://doi.org/10.5751/ES-03321-150316

Le Jallé, É. (2020). La voûte de la justice et le mur de la bienveillance: Deux formes du lien social selon David Hume. *Astérion. Philosophie, histoire des idées, pensée politique*, (22), Article 22. https://doi.org/10.4000/asterion.4911

Léopold, M., Thébaud, O., & **Charles, A.** (2019). The dynamics of institutional innovation: Crafting co-management in small-scale fisheries through action research. *Journal of Environmental Management*, *237*, 187–199. https://doi.org/10.1016/j.jenvman.2019.01.112

Link, J. S., Thébaud, O., Smith, D. C., Smith, A. D. M., Schmidt, J., Rice, J., Poos, J. J., Pita, C., Lipton, D., Kraan, M., Frusher, S., Doyen, L., Cudennec, A., Criddle, K., & **Bailly, D.** (2017). Keeping Humans in the Ecosystem. *ICES Journal of Marine Science*, *74*(7), 1947–1956. https://doi.org/10.1093/icesjms/fsx130

Locke, J. (1690). *Traite du gouvernement civil*. J.-M. Tremblay. https://doi.org/10.1522/cla.loj.tra

Macinko, S. (1993). Public or Private: United States Commercial Fisheries Management and the Public Trust Doctrine, Reciprocal Challenges. *Natural Resources Journal*.

Marchal, P., Andersen, J. L., Aranda, M., Fitzpatrick, M., Goti, L., Guyader, O., Haraldsson, G., Hatcher, A., Hegland, T. J., Le Floc'h, P., Macher, C., Malvarosa, L., Maravelias, C. D., Mardle, S., Murillas, A., Nielsen, J. R., Sabatella, R., Smith, A. D. M., Stokes, K., … Ulrich, C. (2016). A comparative review of fisheries management experiences in the European Union and in other countries worldwide: Iceland, Australia, and New Zealand. *Fish and Fisheries*, *17*(3), 803–824. https://doi.org/10.1111/faf.12147

Marshall, K. N., Levin, P. S., Essington, T. E., Koehn, L. E., Anderson, L. G., Bundy, A., Carothers, C., Coleman, F., Gerber, L. R., Grabowski, J. H., Houde, E., Jensen, O. P., Möllmann, C., Rose, K., Sanchirico, J. N., & **Smith, A. D. M.** (2018). Ecosystem-Based Fisheries Management for Social–Ecological Systems: Renewing the Focus in the United States with Next Generation Fishery Ecosystem Plans. *Conservation Letters*, *11*(1), e12367. https://doi.org/10.1111/conl.12367

Molina, A. C., & **Gourguet, S.** (2025). Untangling Conflicts in Small-Scale Fisheries. *Fish and Fisheries*. https://doi.org/10.1111/faf.70026

Moulin, H. (1995). An Appraisal of Cooperative Game Theory/ Une évaluation de la théorie des jeux coopératifs. *Revue d'économie Politique*, *105*(4), 617–632.

Neher, P. A., Arnason, R., & **Mollett, N.** (Eds). (1989). *Rights Based Fishing*. Springer Netherlands. https://doi.org/10.1007/978-94-009-2372-0

Nielsen, J. R. (2003). An analytical framework for studying: Compliance and legitimacy in fisheries management. *Marine Policy*, *27*(5), 425–432. https://doi.org/10.1016/S0308-597X(03)00022-8

Nussbaum, M. C. (2011). *Creating Capabilities: The Human Development Approach*. Harvard University Press. https://doi.org/10.2307/j.ctt2jbt31

O'Brien, K., Garibaldi, L. A., Agrawal, A., Bennett, E., Biggs, R., Calderón Contreras, R., Carr, E. R., Frantzeskaki, N., Gosnell, H., Gurung, J., Lambertucci, S. A., Leventon, J., Chuan, L., Reyes García, V., Shannon, L., Villasante, S., Wickson, F., Zinngrebe, Y., & **Périanin, L.** (2025). *IPBES Transformative Change Assessment: Summary for Policymakers*. Zenodo. https://doi.org/10.5281/zenodo.17099400

OECD. (2025). *OECD Review of Fisheries 2025*. OECD Publishing. https://doi.org/10.1787/560cd8fc-en

Oostdijk, M. (2021). *Fisheries Management under Individual Transferable Quota Outcomes for Ecology and Equity*. https://opinvisindi.is/handle/20.500.11815/2562

Ostrom, E. (1990). *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press. https://doi.org/10.1017/CBO9780511807763

Parfit, D. (2011). *On What Matters: Volume One* (Vol. 1). https://doi.org/10.1093/acprof:osobl/9780199572809.001.0001

Penca, J., Ertör, I., Ballesteros, M., Briguglio, M., Kowalewski, M., Pauksztat, B., Cepić, D., Piñeiro-Corbeira, C., Vaidianu, N., Villasante, S., & **Pascual-Fernández, J. J.** (2025). Rethinking the Blue Economy: Integrating social science for sustainability and justice. *Npj Ocean Sustainability*, *4*(1), 40. https://doi.org/10.1038/s44183-025-00138-1

Pinkerton, E. (2013). Alternatives to ITQs in equity–efficiency–effectiveness trade-offs: How the lay-up system spread effort in the BC halibut fishery. *Marine Policy*, *42*, 5–13. https://doi.org/10.1016/j.marpol.2013.01.010

Pinkerton, E., & **Davis, R.** (2015). Neoliberalism and the politics of enclosure in North American small-scale fisheries. *Marine Policy*, *61*, 303–312. https://doi.org/10.1016/j.marpol.2015.03.025

Pinkerton, E., & **Edwards, D. N.** (2009). The elephant in the room: The hidden costs of leasing individual transferable fishing quotas. *Marine Policy*, *33*(4), 707–713. https://doi.org/10.1016/j.marpol.2009.02.004

Pinkerton, E., & **John, L.** (2008). Creating local management legitimacy. *Marine Policy*, *32*(4), 680–691. https://doi.org/10.1016/j.marpol.2007.12.005

Prellezo, R., Da-Rocha, J. M., Palomares, M. L. D., Sumaila, U. R., & **Villasante, S.** (2023). Building climate resilience, social sustainability and equity in global fisheries. *Npj Ocean Sustainability*, *2*(1), 1–7. https://doi.org/10.1038/s44183-023-00017-7

Quimby, B., & **Levine, A.** (2018). Participation, Power, and Equity: Examining Three Key Social Dimensions of Fisheries Comanagement. *Sustainability*, *10*(9), Article 9. https://doi.org/10.3390/su10093324

Rawls, J. (1971). *A Theory of Justice: Original Edition*. Harvard University Press. https://doi.org/10.2307/j.ctvjf9z6v

Ribot, J. C., & **Peluso, N. L.** (2003). A Theory of Access*. *Rural Sociology*, *68*(2), 153–181. https://doi.org/10.1111/j.1549-0831.2003.tb00133.x

Rousseau. (1762). *The Social Contract and Discourses | Online Library of Liberty*. https://oll.libertyfund.org/titles/cole-the-social-contract-and-discourses

Rousseau, J.-J. (1754). *Discours sur l'inégalité*.

Ruano-Chamorro, C. (2023). *The role of equity in small-scale fisheries management*. https://doi.org/10.25903/sg7v%2Dmg10

Sandel, M. (2009). *Justice: What's the Right Thing to Do?* Farrar, Straus and Giroux. https://doi.org/10.1037/e597132010-001

Schadeberg, A., van Leeuwen, J., Groeneveld, R. A., & **Kraan, M.** (2024). Science is not enough: The role of legitimacy in the governance of marine activities. *Marine Policy*, *169*, 106337. https://doi.org/10.1016/j.marpol.2024.106337

Scheidel, A., Del Bene, D., Liu, J., Navas, G., Mingorría, S., Demaria, F., Avila, S., Roy, B., Ertör, I., Temper, L., & **Martínez-Alier,**

J. (2020). Environmental conflicts and defenders: A global overview. *Global Environmental Change*, *63*, 102104. https://doi.org/10.1016/j.gloenvcha.2020.102104

Scott, A. D. (1955). *The Fishery: The Objectives of Sole Ownership on JSTOR*. https://www.jstor.org/stable/1827047?seq=1

Scott, A. D. (1989). Conceptual Origins of Rights Based Fishing. In P. A. Neher, R. Arnason, & N. Mollett (Eds.), *Rights Based Fishing* (pp. 11–38). Springer Netherlands. https://doi.org/10.1007/978-94-009-2372-0_2

Sen, A. (1985). *Commodities and Capabilities*. Oxford University Press India.

Sen, A. (2009). *The Idea of Justice*. Harvard University Press. https://doi.org/10.2307/j.ctvjnrv7n

Seto, K., Galland, G. R., McDonald, A., Abolhassani, A., Azmi, K., Sinan, H., Timmiss, T., Bailey, M., & **Hanich, Q.** (2021). Resource allocation in transboundary tuna fisheries: A global analysis. *Ambio*, *50*(1), 242–259. https://doi.org/10.1007/s13280-020-01371-3

Smith, S. L., Battista, W., Sarto, N., Fujita, R., Stetten, D. C., Karasik, R., & **Burden, M.** (2019). A framework for allocating fishing rights in small-scale fisheries. *Ocean & Coastal Management*, *177*, 52–63. https://doi.org/10.1016/j.ocecoaman.2019.04.020

Squires, D. (2026). Ocean Justice Through Fair and Equitable Allocations and Distributive Impacts with Responsibility-Sensitive Egalitarianism. *Marine Resource Economics*, *41*(1), 21–48. https://doi.org/10.1086/738005

Sumaila, U. R., & **Villasante, S.** (2025). Surging blue economy, increasing conflict risks and mitigation strategies. *Frontiers in Marine Science*, *12*. https://doi.org/10.3389/fmars.2025.1499386

Thébaud, O., Innes, J., & **Ellis, N.** (2012). From anecdotes to scientific evidence? A review of recent literature on catch share systems in marine fisheries. *Frontiers in Ecology and the Environment*, *10*(8), 433–437. https://doi.org/10.1890/110238

Tokunaga, K., Kerr, L. A., & **Pershing, A. J.** (2023). Implications of fisheries allocation policy on anticipated climate change impacts. *Marine Policy*, *148*, 105402. https://doi.org/10.1016/j.marpol.2022.105402

Van Rooij, B., & **Sokol, D. D.** (Eds.). (2021). *The Cambridge Handbook of Compliance* (1st edn). Cambridge University Press. https://doi.org/10.1017/9781108759458

Voss, R., Quaas, M. F., Hoffmann, J., & **Schmidt, J. O.** (2017). Social–Ecological Trade-Offs in Baltic Sea Fisheries Management. In *Conservation for the Anthropocene Ocean* (pp. 359–377). Elsevier. https://doi.org/10.1016/B978-0-12-805375-1.00017-9

Yang, D., & **Pomeroy, R.** (2017). The impact of community-based fisheries management (CBFM) on equity and sustainability of small-scale coastal fisheries in the Philippines. *Marine Policy*, *86*, 173–181. https://doi.org/10.1016/j.marpol.2017.09.027

TO CITE THIS ARTICLE:
Dudouet, B., Thébaud, O., Kinds, A., & Villasante, S. (2026). Equity in the Management of Fisheries: A Theoretical Journey. *International Journal of the Commons*, 20(1), pp. 669–681. DOI: https://doi.org/10.5334/ijc.1722

Submitted: 30 January 2026 **Accepted:** 12 October 2026 **Published:** 27 November 2026

COPYRIGHT:
© 2026 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See https://creativecommons.org/licenses/by/4.0/.

International Journal of the Commons is a peer-reviewed open access journal published by Ubiquity Press.