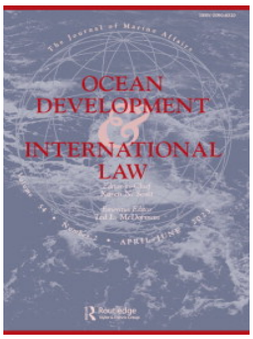

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From "Common Pools" to "Fish Pools": Shifting Property Institutions in Traditional Waters of Norway and Canada

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ABSTRACT

Although exclusive common pool resource management regimes have locally been applied since time immemorial in many coastal and fjord areas, in the legal conceptualization of space, the oceans and their living resources were traditionally treated as a "global commons." The idea of restricting access to coastal oceanic resources and delegating their governance to state instruments has become increasingly popular since the middle of the previous century when political economy models predicted the eventual overexploitation or degradation of all resources used in common. While state jurisdictions overall continue to preserve the idea of common access to marine living resources for a state's people, the rapid privatization of marine living resources and the subsequent development of aquaculture over the last few decades, often confront this understanding, leading to enclosure of a delineated maritime area that was initially intended to be accessible to the public. Enclosing the sea for the purpose of aquaculture development leads to a semantic change in property institutions that govern coastal areas and provides for a form of enclosure of the commons in key locations designated for marine aquaculture development. This article explores the concept of "ocean commons" and debates how the enclosure of common areas for the purposes of aquaculture development may collide with Indigenous and local conceptions of common pool resource management. The article applies this theoretical investigation on two examples from Canada and Norway, and suggests that rethinking aquaculture development in coastal waters through the lens of "ocean commons" may provide a guiding ethos for revisiting current approaches of access to the sea and ensuring the harmonious coexistence between aquaculture development and local/Indigenous traditional activities.

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Introduction

Long before the establishment of sovereign states, local users of coastal areas developed and enforced rules for the governance of marine resources, facilitating resource exploitation and conservation on the grounds of community-based common pool systems.[1] Throughout legal modernity, the establishment of state sovereignty and jurisdiction over the ocean space gradually eclipsed community-based conceptions of space and customary systems that once regulated access to the sea for coastal community members.[2] Against the backdrop of colonial expansion of European nations, international legal developments initially conceptualized the oceans' legal architecture as vacant of any previous authority and normative orders, and acknowledged the ocean space as a great "commons" open to navigation and exploitation.[3] Although about one-third of the world's total ocean space is today territorialized or under a form of state sovereignty or jurisdiction, the idea that the sea is a "commons" and the utilization of the coastal marine living resources should thus be determined by the "common access" principle for each state's people remains well anchored in many states' domestic legislation.[4]

The initial unrestricted exploitation of common marine resources by sovereign states on the basis of a presumed abundancy of those resources lasted until industrialization, when exploitation became increasingly restricted by the need to preserve and conserve the marine environment,[5] today reflected in Part XII of the United Nations Convention on the Law of the Sea (UNCLOS), to which most nations are party.[6] Thus, although most domestic jurisdictions provide for free access to marine space and living resources for each state's population, sovereign states determine how much fish can be captured through quotas and other management schemes. This incremental development has drastically affected customary utilization of marine resources employed by Indigenous and local communities, with many small-scale fishers being forced to enter modern industries and quota systems in order to ensure their subsistence.[7] Industrialization meant the establishment of property rights to means of production, lands and waters,

[1] There are numerous examples of such systems recorded around the world, ranging from the Pacific to the Arctic; among the contributions reviewed here are Iliana Monterroso, Peter Cronkleton and Anne M. Larson, "Commons, Indigenous Rights, and Governance," in Blake Hudson, Jonathan Rosenbloom, and Dan Cole (eds), *Routledge Handbook of the Study of the Commons* (Routledge, 2019), 376; Svein Jentoft, "Governing Tenure in Norwegian and Sámi Small-Scale Fisheries: From Common Pool to Common Property?" (2013) 1 *Land Tenure Journal* 91, 91–115; Philip D. Townsley, James Anderson, and Chris Mees, "Customary Marine Tenure in the South Pacific: The Uses and Challenges of Mapping" (1997) 30 *PLA Notes* 36, 36–39; Ching-Ping Tang and Shui-Yan Tang, "Negotiated Autonomy: Transforming Self-Governing Institutions for Local Common Pool Resources in Two Tribal Villages in Taiwan" (2001) 29 *Human Ecology* 49, 49–67.

[2] Monica E. Mulrennan and Colin H. Scott, "Mare Nullius: Indigenous Rights in Saltwater Environments" (2000) 31 *Development and Change* 681, 682.

[3] The theorization of the sea as a "commons" in modern legal thought dates back at least to the early 17th century when Grotius, the father of the law of the sea, first published his work *Mare Liberum*; Hugo Grotius, *Mare Liberum, sive de jure quod Batavis competit ad Indicana commercia dissertatio* (Lodewijk Elzevir, 1609).

[4] See the discussion of the commons, in the following sections, in relation to Norway's and Canada's existing fisheries and aquaculture policies.

[5] George Kent, "The Industrialization of Fisheries" (1986) 13 *Peasant* Studies 133, 136–139.

[6] United Nations Convention on the Law of the Sea, adopted 10 December 1982, entered into force 16 November 1994, 1833 UNTS 397, Part XII (hereinafter, UNCLOS).

[7] This was the case in Norway, when a large percentage of the Coastal Sámi population had to join modern industries in order to secure its subsistence in the postindustrialization era. See Bjørg Evjen, "A Sea-Sámi's story. From Fishing-Farmer to Miner, From 'Sea-Sámi' to 'Norwegian'?" (Forum Conference: Aspects of Migration and Urbanization, Tromsø 2007), 43–44; a deeper engagement with the case of Sámi fisheries follows in this article.

and living as well as nonliving resources.[8] Market capitalist societies, supplemented with governance structures that control their energies for the common benefit, are often characterized by unequal distribution of wealth and resources, but became preferential for delivering goods in a reasonably equitable manner based on the allocation of property rights.[9] In this context, many localized common pool regimes were progressively overshadowed as a result of industrialization and opening access to the sea for institutionalized commercial activities operating under formal markets.

The apogee of the transformation of property institutions in coastal waters has been the rapid development of aquaculture. In response to the perpetual increase in the world's population and global need for seafood products, the world's oceans have recently witnessed enormous aquaculture growth, predominantly in internal or territorial waters up to 12 NM, with the first offshore aquaculture projects also being under development.[10] Aquaculture broadly refers to "the cultivation of aquatic organisms in controlled aquatic environments for any commercial, recreational or public purpose,"[11] and today constitutes a driving force for many coastal nations' economies. Marine aquaculture (often referred to as mariculture) may include the breeding, rearing, and harvesting of fish, plants, and animals (e.g., crustaceans, mollusks, algae, and other organisms), and takes place in all types of water environments, including ponds, rivers, lakes, oceans, and even enclosed areas on land.[12]

The development of a marine aquaculture farm requires the establishment of an enclosed coastal area wherein animals or plants are farmed. Enclosing the sea for this purpose leads to a semantic change in property institutions that govern coastal areas, and provides for a form of enclosure of the commons in the locations designated for marine aquaculture development. In many such cases, aquaculture development may collide with local conceptions of space and collective forms of access to the sea held by local and Indigenous communities, while it may also raise questions as to the general idea of utilization of the sea as a "commons," replacing former common areas with enclosed "pools" designated for farming fish and other resources.[13]

In this article we aim to unfold how the ideas of "ocean commons" and "common pool" resources have been nurtured in the context of the ever-increasing aquaculture development in traditional areas of Norway and Canada. In completing this comparative study, this article seeks to better understand how aquaculture development, as well as modern legal conceptualizations of access to the marine space and living resources more broadly, intersects with traditional marine management and usage—including evolving Indigenous governance and marine living resource rights.

This introduction precedes a section on the research methods employed in this article. The following section begins with a brief historical account of the development

[8] Rögnvaldur Hannesson, *Privatization of the Oceans* (MIT Press, 2004), 7.

[9] Ibid, 11.

[10] It is worth noting that offshore aquaculture refers to development beyond coastal waters but within the exclusive economic zone (EEZ), where the coastal state has sovereign rights in relation to living resources. Offshore aquaculture developments in the high seas have not yet been undertaken.

[11] National Oceanic and Atmospheric Administration (NOAA), "What Is Aquaculture?" June 2011, at: https://www.noaa.gov/stories/what-is-aquaculture (accessed 26 September 2022).

[12] NOAA Fisheries, "Understanding Marine Aquaculture" September 2022, at: https://www.fisheries.noaa.gov/insight/understanding-marine-aquaculture (accessed 26 September 2022).

[13] Edward D. Goldberg, "Protecting the Wet Commons" (1990) 24 *Environmental Science and Technology* 450, 453.

of the idea of "ocean commons" in legal thought, followed by a discussion on how the rapid emergence of aquaculture has attempted to "re-territorialize" coastal waters and redefine property institutions in common areas. Subsequently, this article applies this framework to two examples and explores how the access to the sea, along with the idea of "ocean commons," has been debated in local and Indigenous areas of Norway and Canada. It further discusses how aquaculture development in both states may interplay with existing local conceptions of "common pool" resource management and lead to current disputes with Indigenous and local small-scale fishers. The article ultimately suggests that rethinking aquaculture development in coastal waters through the lens of "ocean commons" may provide a guiding ethos for revisiting current regulatory frameworks of access to the sea and ensuring the harmonious coexistence between aquaculture development and local/Indigenous stakeholders. This article finishes with conclusions following the discussion, summarizing the main insights from this study.

Methodology and Case Studies

Although the law of the sea plays a vital part in providing the mechanisms and procedures for sovereign states to manage marine resources at the international level, the predominant mode of regulating resources in coastal waters lies in unilateral management schemes under the jurisdiction of individual states,[14] while the regulation of the "commons" at the domestic level has historically evolved differently among states. In this article, we undertake a synergistic reading of the ever-increasing development of aquaculture in relation to the concept of "ocean commons" using the case studies of Norway and Canada. These states serve as appropriate examples[15] owing to their resource management histories, which include the precolonization establishment of marine resource usage and management systems on the basis of common pool systems, and the introduction of colonial laws to replace those local preestablished legal orders surrounding access to the seas. Both countries are Arctic littoral states with significant interest in aquaculture development and whose domestic fisheries policies have direct impact on natural resource management in the circumpolar north. Norway and Canada have great interest in seafood harvesting and processing, having managed to establish world leading sustainable and profitable seafood industries. However, societal inclusion and efficient acknowledgment of nonstate marine living resource management forms remain, at times, problematic in both states. Both states are also signatories to modern international law developments pertinent to Indigenous peoples and are currently undergoing efforts to ensure protection of the rights and cultures of Indigenous and local communities.[16]

[14] Indeed, the unlimited jurisdiction of coastal states in territorial seas is today limited by the general obligation to protect and preserve the marine environment. See UNCLOS, Part XII.

[15] Jason Seawright and John Gerring, "Case Selection Techniques in Case Study Research: A Menu of Qualitative and Quantitative Options" (2008) 61 *Political Research Quarterly* 294, 294–308.

[16] Canada's Parliament on 3 December 2020 adopted a bill (Bill C-15) that would align state policy with the soft law instrument United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Norway has also signed UNDRIP, while also pursuing the ratification of the International Labour Organization (ILO) Convention no. 169 on the Rights of Indigenous and Tribal Peoples. Further, litigation in both states has at times acknowledged certain rights to Indigenous communities, as discussed in the following.

Norway and Canada nevertheless differ in important ways, making them ideal examples for comparative analysis. While Norway is home to the Sámi Indigenous peoples unified under a singular domestic parliament (*Sametinget*),[17] Canadian Indigenous populations include more than 600 First Nations, Métis, and Inuit groups with diverse cultural ties to the sea and its resources. The two countries also have divergent colonial histories, political divisions (federal vs. unitary state) and demographic characteristics, as well as two different legal cultures (civil and common law, respectively, although the Canadian province of Quebec maintains a civil code separate from national common law). While these qualities provide a great array of topics for comparative discussion, the scope of this article is limited to a discussion of the history of "ocean commons" in the two regions and how the ever-increasing development of aquaculture has come to challenge common pool systems employed in coastal areas by Indigenous and local communities.

Against this background, the first step in assessing the case studies is to provide a comprehensive overview of the gradual development of ocean commons governance in domestic jurisdictions of Norway and Canada, and to investigate how the rapid development of aquaculture has come to challenge traditional perceptions of space. In that regard, our principal research question is *How has the concept of "ocean commons" evolved in Norway and Canada and been re-shaped by aquaculture development?* More specifically, we seek to investigate how ongoing aquaculture developments are currently interacting with traditional small-scale fisheries and how they may generate conflict. To address these questions, a literature review was conducted using a snowball and citation search method.[18] Through a critical analysis of the research results, we suggest that re-approaching aquaculture development through the lens of ocean commons may offer valuable insights for the establishment of sustainable and inclusive resource management systems in light of Indigenous rights.

Law and the Concept of "Ocean Commons"

Modern international law treats five distinct areas as "global commons": the high seas; the deep seabed in areas beyond national jurisdiction (referred to as "the Area"); the Atmosphere; Antarctica; and outer space.[19] The concept of "commons" as understood in modern international law is founded upon the Latin legal category *res communes omnium*.[20] As recorded by the Roman jurist Marcianus in the famous *Corpus Iuris Civilis* of Justinian I, on the basis of *ius naturale* (natural law), things are taxonomized

[17] The traditional region of the Sámi people extends across Northern Norway, Sweden, Finland, and the northwestern part of the Russian Federation. The Sámi people in Norway, Sweden, and Finland are also organized under respective Sámi parliaments, with different jurisdiction in each state. See Anne Julie Semb, "Sami Self-Determination in the Making?" (2005) 11 *Nations and Nationalism* 531, 537.

[18] Claes Wohlin, "Guidelines for Snowballing in Systematic Literature Studies and a Replication in Software Engineering" (EASE '14: Proceedings of the 18th International Conference on Evaluation and Assessment in Software Engineering) 1–10.

[19] University of Strathclyde Glasgow, "Law and Governance of the Global Commons Incubator" September 2022 at: https://www.strath.ac.uk/research/strathclydecentreenvironmentallawgovernance/ourwork/research/labsincubators/lawandgovernanceoftheglobalcommonsincubator/ (accessed 26 September 2022). Other scholars, such as Susan Buck, qualify the "telecommunications" as a global commons too. See Susan A. Buck, *The Global Commons: An Introduction* (Island Press, 1998).

[20] Vito De Lucia, "Ocean Commons, Law of the Sea and Rights for the Sea" (2019) 32 *Canadian Journal of Law & Jurisprudence* 45, 48.

into different categories including things that are common to all men (*res communes omnium*), things that belong to a community (*res universitatis*), things that belong to no one (*res nullius*), and things that belong to individuals (*res privatae*).[21] In Roman thought, four things were commonly understood as common to all men: the sea, the seashores, the air, and the running of falling water (*aqua profluens*).[22] As Stefano Cattelan has observed, the wording and classification of *res communes* in *Corpus Iuris* only outlined the different types of "commons" and did not provide any details about what this concept implies or the legal consequences and proprietary rights that may derive from the communal utilization of these resources, including the sea.[23]

Loosely drawing on these early Roman law doctrines, the father of the law of the sea, Hugo Grotius, developed the idea of freedom of the seas according to which the oceans could be used as a great "commons" by any nation without being subject to the ownership of any individual state. Antithetical to former claims of property rights over the sea and assertions of sovereignty over the marine space,[24] Grotius considered the sea as a *res communis omnium* in the sense that it could not be subject to the *dominium* of any sovereign state.[25] By declaring the sea and its resources as *res communes*, Grotius best depicted the open access nature of many marine resource management forms whereby resources are owned by no one until captured.[26]

The aim of Grotius' *Mare Liberum* was not to establish a free sea per se as a flat plane of transit, but to establish a legality in the sea that renders it free for trade, navigation, mercantilism, and unhindered economic use in the premise of inexhaustible resources.[27] The freedoms of navigation and exploitation developed in Grotius' *Mare Liberum* were thus aimed at the economic expansion of states and supported the early modern maritime imperial powers. Freedom to navigate the oceans would ensure the exchange of goods and commodities (at times including enslaved humans), and freedom of exploitation would ensure the hypothetically unrestricted economic exploitation of ocean resources.[28] Although forcefully contested in subsequent decades by scholars polemical of his ideas, Grotius' theoretical work was progressively consolidated within ocean-legal thought, and fostered the development of commerce and profit, contributing to the creation of a global maritime legal order that would later be exposed to the urgent needs of the Industrial Revolution and the Great-Acceleration.[29]

[21] The Latin Library, "Omini Nostri Sacratissimi Principis Iustiniani Iuris Enucleati Ex Omni Vetere Iure Collecti Digestorum Seu Pandectarum Liber Primus" at: https://www.thelatinlibrary.com/justinian/digest1.shtml (accessed 26 September 2022).

[22] Ibid.

[23] Stefano Cattelan, *Mare Clausum in Legal Argumentation: Claiming the Seas in the Early Modern Age* (Vrije Universiteit Brussel, 2020), 50.

[24] Probably the first documented assertion of *dominium* over the world's oceans took place in the fifteenth century when the colonial empires of Spain and Portugal, on the grounds of Pope Alexander VI's Papal Bulls and the following 1494 Treaty of Tordesillas, divided the oceans into two large segments: Treaty between Spain and Portugal concluded at Tordesillas, 7 June 1494.

[25] Cattelan, note 23, 181–183.

[26] John Salter, "Adam Smith and the Grotian Theory of Property" (2010) 12 *British Journal of Politics and International Relations* 3, 13.

[27] Grotius' *Mare Liberum* was presented as part of his case against the claims of the Portuguese in East Indies; see Grotius, note 3, chapter 5.

[28] Pierre Cloutier de Repentigny, "To the Anthropocene and Beyond: The Responsibility of Law in Decimating and Protecting Marine Life" (2020) 11 *Transnational Legal Theory* 180, 185.

[29] Ibid, 182; Ileana Porras, "Appropriating Nature: Commerce, Property, and the Commodification of Nature in the Law of Nations" (2014) 27 *Leiden Journal of International Law* 641, 660.

In theory, the first scholars of the law of the sea in the 17th century were already arguing that the coastal state could establish *dominium* through effective control of the marine space, suggesting that territorial sovereignty projected over sea adjacent to the coast was not opposed, but was complementary to the freedom of the seas doctrine.[30] With this understanding underpinning the foundation of modern states,[31] coastal areas and adjacent waters were, in many cases, considered vacant of any preexisting (nonstate) authorities and legal orders, and thus open to appropriation, disregarding previous common pool regimes or customary marine tenure systems localized and employed by coastal communities.[32] From the 18th century onward, state efforts to enclose the oceans were systematized, when the first steps toward the territorialization of the seas occurred based on unilateral claims by coastal states.[33]

Throughout the 20th century, the new political economy of ocean governance was widely concerned with "the commons," and the extent to which existing common and open access property regimes were sustainable or whether they might lead to economic and environmental crises, such as overexploitation, biodiversity loss, and overcapitalization.[34] The opening of global neoliberal markets and the liberalization of international trade through reducing tariffs soon became the dominant approach through which global issues of conservation and allocation of resources were addressed.[35] Such policies were fueled by assumptions that resources needed to be managed by the state or, alternatively, privatized in order to avoid depletion through what is most commonly known in political economy as the "tragedy of commons."[36] The gradual projection of sovereignty from land seaward on the basis of the law of the sea thus led to the enclosure, by national territories, of vast maritime areas previously considered as "commons." The idea that limited access to fisheries would ensure the better management of species was soon introduced to the United Nations Food and Agriculture Organization, as well as other international fora, paving the way toward the privatization

[30] David J. Bederman, "The Sea" in Bardo Fassbender and Anne Peters (eds), *The Oxford Handbook of the History of International Law* (Oxford University Press, 2012), 359, 370.

[31] The tendency to project sovereignty seaward was often accompanied by colonial endeavors (manifested through either internal or external colonization). See Antony Anghie, "The Evolution of International Law: Colonial and Postcolonial Realities" (2006) 27 *Third World Quarterly* 739, 739–753.

[32] Christopher Tomlins, "The Legal Cartography of Colonization, the Legal Polyphony of Settlement: English Intrusions on the American Mainland in the Seventeenth Century" (2001) 26 *Law & Social Inquiry* 315, 323; Glen Coulthard, *Red Skin, White Masks: Rejecting the Colonial Politics of Recognition* (University of Minnesota Press, 2014), 100.

[33] The first assertion of territorial sea in Norway happened by royal resolution in 1812; see Cancelli promemoria, LOV-1812-02-25. By this time, the territorial sea stretched one customary sea mile from the coast, corresponding to approximately 4 modern nautical miles. Ministry of Trade and Industry, "The Territorial Waters and the Adjacent Zone" 11 March 2014, *Government of Norway* at: https://www-regjeringen-no.translate.goog/no/tema/mat-fiske-og-landbruk/fiskeri-og-havbruk/1/fiskeri/internasjonalt-fiskerisamarbeid/internasjonalt/territorialfarvannet-og-den-tilstotende-/id594461/?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=op,wapp (accessed 26 September 2022).

[34] Becky Mansfield, "Neoliberalism in the Oceans: 'Rationalization,' Property Rights, and the Commons Question" (2004) 35 *Geoforum* 313, 314.

[35] Ibid, 313.

[36] The idea of restricting everyone's access to coastal oceanic resources and delegating their governance to state instruments was later shared by Garrett Hardin, whose "Tragedy of the Commons" model predicted the eventual overexploitation or degradation of all resources used in common. See Garrett Hardin, "The Tragedy of the Commons Science: The Population Problem Has No Technical Solution; It Requires a Fundamental Extension in Morality" (1968) 162(3859) *American Association for the Advancement of Science* 1243, 1243–1248. Although Hardin's theory has been crucial in the development of the 20th-century political economy models, it must be noted that Hardin's political analysis was informed by racism, anti-immigrant biases, and eugenic theories; see Rob Nixon, "Neoliberalism, Genre, and the Tragedy of the Commons" 127(3) *PMLA* 593, 598.

of fisheries and the reduction of common pool resources in favor of individual property rights.[37] As a result, a large part of the world's oceans was soon territorialized and partitioned into zones of different levels of state sovereignty and jurisdiction, wherein property rights are distributed.

Today, in the legal architecture of the world's oceans, predominantly determined by UNCLOS, only two distinct maritime zones remain as "global commons": the high seas, and the seabed beyond national jurisdiction (ocean floor and subsoil thereof),[38] which correspond to about a third of the total extent of the oceans. The high seas comprise marine areas beyond the limits of national jurisdiction (ABNJ) that are thus "not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State."[39] The high seas are subject to the high seas regime under Part VII of UNCLOS, while the deep seabed, also known as the "Area," is subject to the regime of the "common heritage of mankind" (under Part XI of UNCLOS). On the basis of UNCLOS, the rest of the world's oceans (more than 30 percent of its total extent) is territorialized, with coastal states having established sovereignty over coastal waters up to 12 NM (territorial sea), sovereign rights over resources up to 200 NM (exclusive economic zone [EEZ]), and sovereign rights over continental shelves that can extend up to 350 NM. In these enclosed maritime zones, the open access nature of the oceans as a *res communes* is still acknowledged in the domestic jurisdictions of many coastal nations, yet it is subject to a high degree of state interventionism that seeks to regulate access to the ocean space and exploitation of living resources.

The territorialization of ocean commons and enclosure of coastal waters within national jurisdictions on the basis of UNCLOS was the first step toward further devolution of property rights to individuals.[40] Previous open marine areas were thereby converted from *res communes* to a form of *res publica*, where the state exercises its authority based on sovereignty or sovereign rights, and regulates the ways in which resources are captured, by whom, and under which conditions, even determining how much can be captured.[41] Under UNCLOS, state regulation of access to resources is determined by the upper limit in the amount of fish harvested in a given season, known as total allowable catch (TAC), which is often designed on the basis of a maximum sustainable yield (MSY).[42] The stricter regulation of access to the sea and its resources under international law partially occurred in response to the fact that marine living resources started to diminish throughout the 20th century, largely driven by the development of fishing technologies during industrialization. To respond to speculations that the unrestricted utilization of marine resources may lead to a "tragedy of commons," economists have long argued that the perpetuation of fisheries on a

[37] Mansfield, note 34, 316.

[38] The latter is legally determined as "common heritage of the mankind"; for a comprehensive discussion on the legal status of the common heritage of the mankind, see Kemal Baslarm, *The Concept of the Common Heritage of Mankind in International Law* (Martinus Nijhoff Publishers, 1997).

[39] UNCLOS, Art 86.

[40] Mansfield, note 34, 317.

[41] Bonny McCay, "The Ocean Commons and Community" (1994) 74 *Dalhousie Review* 310, 323.

[42] UNCLOS, Art 61.

nonexhaustible basis can only be achieved through the "privatization of the commons."[43] By creating individual private property rights through the establishment of fishing quotas and other resource management schemes, legal developments eventually led to the enclosure of previously common areas and resources.

Under this apparatus, the territorialization of the seas fostered private property and market conditions within an area exclusively governed by a sovereign state, providing the foundation from which states could further enclose the oceans through limited licensing or other privatization schemes. In other words, the territorialization of the seas opened the way for neoliberalism in the oceans, and the treatment of what was previously regarded as commons adjacent to the coasts as *res privatae*, private property. It could be asserted that, in a nutshell, *res communes* ocean spaces and wild living marine resources in coastal areas became subject to public property (*res publica*), inasmuch as an individual or group first needs the approval of state authorities to capture the fish and assert a private claim over them (*res privatae*).

The "*res publica*" idea of commons, in the sense that access to the ocean space and its resources should be common to each state's citizens but strictly regulated by a public authority, is still incorporated in the domestic legislations of many states, including Canada and Norway. The preamble of the 1996 Oceans Act of Canada "recognizes that the three oceans, the Arctic, the Pacific and the Atlantic, are the common heritage of all Canadians."[44] Similarly, Article 2 of the 2008 Marine Resources Act of Norway affirms that "wild living marine resources belong to Norwegian society as a whole."[45] Although the phrases "common heritage of all Canadians" and "Norwegian society as a whole" denote, to an extent, a conceptualization of the seas as a "commons," the wording of these provisions lacks definitional clarity and is misleading, since it does not provide an explicit basis for the full potential of property rights concepts for each state's citizens.[46] Conversely, much less conceptual ambiguity exists when it comes to the way property rights are granted to individuals on the basis of private schemes and quota regulations in accordance with the two states' marine resource management policies and international legal commitments.

Aquaculture as a Means to Re-Territorialize Common Areas

Contemporary aquaculture emerged between 1970 and 1980 in response to the critical overexploitation of global fisheries. In addition to environmental harm, the overexploitation of marine living resources resulted in harvest stagnation and associated food insecurity that severely affected developing state regions.[47] Proponents of aquaculture

[43] The idea that the individual use of resources may function better than communal use was already debated in the 4th century BC by Aristotle: "For that which is common to the greatest number has the least care bestowed upon it. Everyone thinks chiefly of his own, hardly at all of the common interest; and only when he is himself concerned as an individual." Aristotle, *Politics, Book 2 part III* (Batoche Books Kitchener, 1999), 24.

[44] Oceans Act (S.C. 1996, c. 31), preamble. It is worth mentioning here that the "common heritage" idea is loosely determined and does not share the same legal and conceptual basis with the common heritage regime pertinent to the deep seabed and the outer space.

[45] Lov om forvaltning av viltlevande marine ressursar (Lov 2008-06-06, nr 37).

[46] The lack of definitional clarity of Article 2 of the Marine Resources Act was acknowledged by the Supreme Court of Norway in the *Voldstad* case; see Norwegian Supreme Court, Judgment: HR-2013-2200-P-Rt-2013-1345.

[47] Taryn Garlock, Frank Asche, James Anderson et al., "A Global Blue Revolution: Aquaculture Growth Across Regions, Species and Countries" (2020) 28 *Reviews in Fisheries Science & Aquaculture* 107, 107–116.

growth argued that a "Blue Revolution" could introduce modern farming practices and technologies to the harvesting of aquatic organisms, including fish, crustaceans, and marine plants. The domestication and controlled harvesting of such organisms would ostensibly improve both the sustainability of marine ecosystems and the security of human food supplies, even as it inherently necessitated the redefinition of common spaces and, in many places, restrictions on preestablished common pool management regimes.[48]

Aquaculture has expanded rapidly to meet the needs of a growing global population and evolving environmental conditions. Prior to 1980, aquaculture represented a relatively insignificant food source, but it has now exceeded wild fisheries in providing seafood for human consumption.[49] While the practice of aquaculture was originally concentrated in China and countries of South Asia, it has now expanded to other nations ranging from Egypt and Chile to Norway and Canada, where marine governance and state jurisdictions have been progressively reconceptualized amid expanding private usage.[50] The rapid development of aquaculture has necessitated a re-territorialization of coastal areas across the globe. Moreover, although conventional territorialization of the seas has included governance by sovereign states and, in some cases, autonomous local and Indigenous common pool resource management schemes existing within those states, aquaculture has introduced new private actors into marine spaces.[51] This, in many places, has resulted in overlapping jurisdictions between Indigenous and non-Indigenous stakeholders, sovereign states, commercial fishers and farmers, and international organizations such as advocacy groups.[52]

Risk is shared across these various actors and jurisdictions even as benefits are limited to specific groups. Although debatable, it is commonly theorized that privatization mitigates resource rivalry and overexploitation experienced throughout common pool resources.[53] However, the biological nature of marine ecosystems and the socio-ecological implications that result from the establishment of farms within them complicate this argument. For example, the overstocking of nearshore aquaculture operations may cause parasites or disease to spread through farms and to spread from farmed to wild species.[54] Under established marine jurisdictions exclusively controlled by sovereign states, individuals, communities, and commercial actors dependent on damaged wild stocks often receive no revenues or other benefits associated with the aquacultural practices responsible for spreading disease and parasites. Benefits are concentrated among private or public firms operating the farms, despite the operational risks being distributed more broadly.[55] The privatization of seas in coastal regions

[48] "The Promise of a Blue Revolution" 9 August 2003, *The Economist* at: https://www.economist.com/special-report/2003/08/07/the-promise-of-a-blue-revolution (accessed 26 September 2022).

[49] Garlock, Asche, Anderson et al., note 47, 12–13.

[50] Ibid.

[51] Peter Vandergeest, Stefano Ponte, and Simon Bush, "Assembling Sustainable Territories: Space, Subjects, Objects, and Expertise in Seafood Certification" (2015) 47 *Environment and Planning* 1907, 1907–1925.

[52] Mariska J. M. Bottema, Simon R. Bush, and Peter Oosterveer, "Territories of State-Led Aquaculture Risk Management: Thailand's Plang Yai Program" 39 *Environment and Planning* 1231, 1231–1251.

[53] Stefan Partelow, David J. Abson, Achim Schlüter et al., "Privatizing the Commons: New Approaches Need Broader Evaluative Criteria for Sustainability" (2019) 13 *International Journal of the Commons* 747, 747–776.

[54] Ole Torrissen, Simon Jones, Frank Asche et al., "Salmon Lice—Impact on Wild Salmonids and Salmon Aquaculture" (2013) 36 *Journal of Fish Diseases* 171, 171–194.

[55] Partelow, Abson, Schlüter et al., note 53.

therefore constructs a new form of resource rivalry in which parties struggle to access or maximize revenues while minimizing cost incurred at the firm or individual level.

Legal frameworks for the privatization of seas and coastal regions have been further structured to exclude specific communities from participation in previously common pool marine spaces. Although the ocean commons conceptually belong to all peoples, the "*res publica*" governance of coastal areas becomes complex under overlapping resource management regimes of state governments and local groups.[56] Colonial laws have developed over time to favor the economic, strategic, and political aims of settler governments, organizing marine spaces to give preference to certain needs of the state at the expense of Indigenous and local community interests.[57] Through this process, differing cultural conceptualizations of marine spaces and resources are distinguished as conflictual. For example, settler interests in commerce under the Eurocentric rule of law are viewed as incompatible with Indigenous and local subsistence activities and cultural practices within marine space. Indigenous groups and local communities may, as a result, often be subordinated or excluded within the legal frameworks determining marine living resource management.[58]

Ocean Commons and Aquaculture in Northern Norway

Although historians record the first settlements in northern Scandinavia from approximately 10 millennia ago,[59] references to the use of marine resources in coastal areas of northern Norway date from the 9th century AD through the interpretation of the text of Icelandic Sagas.[60] In northern Norway, evidence of preexisting common resource management systems can be traced back several centuries both on land (most prominently through the Sámi kinship management system and organizing unit of *Siida*)[61] and in coastal areas, with local communities in many places exclusively regulating the access to resources as "common pool" for the benefit of local populations.

Sámi interests in fishing can be traced back to about 1000 years ago, combining small-scale fishing with other occupations such as farming throughout the northern Norwegian coast.[62] Based on the idea that "closeness guarantees rights" for the local population, and given that the Sámi population of the north was increasing in the 1500s, the king of Denmark–Norway in Copenhagen decided to grant specific privileges

[56] Janne R. Rohe, Hugh Govan, Achim Schlüter et al., "A Legal Pluralism Perspective on Coastal Fisheries Governance in Two Pacific Island Countries" (2019) 100 *Marine Policy* 90, 90. See also Marjo K. Vierros, Autumn-Lynn Harrison, Matthew R. Sloat et al., "Considering Indigenous Peoples and Local Communities in Governance of the Global Ocean Commons" (2020) 119(104039) *Marine Policy* 1, 1–13.

[57] Leah S. Horowitz, "Conflicts of Interests Within and Between Elite Assemblages in the Legal Production of Space: Indigenous Cultural Heritage Preservation and the Dakota Access Pipeline" (2022) 188 *Geographical Journal* 91, 95.

[58] Ibid. See also Karen Bakker and Noel Castree, "An Uncooperative Commodity: Privatizing Water in England and Wales" (2003) 23 *Environment and Planning* 619, 619–623; Rohe, Govan, Schlüter et al., note 56, 91.

[59] Signe E. Nygaard, "The Stone Age of Northern Scandinavia: A Review" (1989) 3 *Journal of World Prehistory* 71, 75.

[60] Peter Ørebech, «Hvem eier fisket i de hålogalandske ytre allmenninger?» (2006) 45(6) *Lov og Rett* 345, 349.

[61] Although the *siida* was traditionally a flexible land and pasture management system, the acknowledgement of *siida* by state authorities introduced fixed administrative units with defined pastureland, which also generates legal and political debates. See Marius Warg Næss, Guro Lovise Hole Fisktjønmo, and Bård-Jørgen Bårdsen, "The Sami Cooperative Herding Group: The Siida System From Past to Present" (2021) 38 *Acta Borealia* 81, 95.

[62] Bjørn Hersoug, *Closing the Commons: Norwegian Fisheries From Open Access to Private Property* (Eburon, 2005) 192.

to nearby fishing grounds for the population of Finnmark,[63] coming to acknowledge existing common pool resource management forms. As observed by Strøm Bull, in several places of Nordland in the 1800s, there were also acknowledged special rights to fishing spots for local communities.[64] Meanwhile, from Sunnmøre in south Møre og Romsdal to Varangerfjord in Finnmark and throughout the Norwegian coast, certain customary norms were employed by local communities in the management of the marine space.[65] Bjørklund describes that, until the early 20th century, a common pool regime was also applicable in the Coastal Sámi communities in the fjords of Troms County, being exclusively accessible to the residents of the area.[66] Other sources record that around the 1750s, many Coastal Sámi fishers complained to state authorities that Sámi reindeer herders were fishing in their fjords, demonstrating that there was a clear perception of exclusive access over the marine resources they exploited.[67]

In legal documents, marine resources have variously been declared as "property of the King," "equally accessible" for the entire population of the state, or even as "exclusively accessible" for the local residents of the northern fjords.[68] Until the middle of the 19th century, fish stocks were not considered a "common" national property, but were linked to individual or collective fishing rights in particular fishing grounds,[69] generating thus a rather pluralistic living resource management apparatus largely varying throughout the coast. It was from 1830 onward that the state first opened the Finnmark fisheries to fishers outside of the region, largely in response to the development of the Pomor trade,[70] leading to conflicts with local small-scale fishers, the majority of which at the time was comprised of Sámi individuals.[71] While historically the management of access to the sea and its resources had been modified on numerous occasions under the domestic jurisdiction of Norway, it could arguably be asserted that, since at least 1830,[72] the "common access" principle has been explicitly established in state law.[73] This principle is still pertinent to marine living resources today, overlapping with the principle of "exclusive use" of marine resources for local populations, as well

[63] Ibid, 193.

[64] Kirsti Strøm Bull, "Fjordfiske og oppdrettsnæring—en arealkonflikt i saltvann" 15 December 2015, *Plan Coast* at: https://blogg.nmbu.no/plancoast/2016/fjordfiske-og-oppdrettsnaering-en-arealkonflikt-i-saltvann (accessed 26 September 2022).

[65] For a comprehensive discussion on the different conceptions of marine living resource management throughout the Norwegian coast, see Kirsti Strøm Bull, *Kystfisket i Finnmark: en rettshistorie* (Universitetsforlaget, 2011).

[66] Ivar Bjørklund, "Property in Common, Common Property or Private Property: Norwegian Fishery Management in a Sami Coastal Area" (1991) 3 *North Atlantic Studies* 41, 43.

[67] Ibid.

[68] For historical representations of the access to the sea in legal documents, see Peter Ørebech, "Hvem eier fisket i de hålogalandske ytre allmenninger?" (2006) 45 *Lov og Rett* 345, 345–364; see also Peter Ørebech, "Fisker, kremmer og proprietær I Nordland—nok en gang" in Ida Bull (ed), *Historisk tidsskrift* (NTNU Institutt for historie og klassiske fag, 2014), 605–618.

[69] Jørn Ø. Sunde, "Fiskerettar i saltvann og lex non scriptum i norsk rett og rettshistorie" (2006) 02–03 *Tidsskrift for Rettsvitenskap*, 342–412; as cited in Siri U. Søreng, "Legal Pluralism in Norwegian Inshore Fisheries: Differing Perceptions of Fishing Rights in Sami Finnmark" (2013) 12 *Maritime Studies* 1, 6.

[70] The Pomor trade was the bartering of fish products and grain between the Pomors of Northwest Russia and the people along the coast of Northern Norway.

[71] Sunde, note 69.

[72] It was an 1830 Act that, in principle, put all inhabitants of Norway on equal footing in terms of access to fisheries in the fjords of Finnmark. See Lov om Fiskerierne i Finmarken eller Vest- og Øst-Finmarkens Fogderier, av 13 September 1830.

[73] "*Allemannsrett*" is the Norwegian legal term, literally translating to "universal right"; see Peter Ørebech, *Om allemannsrettigheter* (Osmundssons forl., 1991).

as the attribution of property rights in the sea to individuals,[74] and ensures that no one can claim exclusive rights over marine living resources or prevent others from enjoying them.[75]

For a long time this was not an issue for the Coastal Sámi or the other local fishers, given that, until recently, there were sufficient fish stocks available both to the state's commercial fisheries and the small-scale fishers in the northern Norwegian fjords.[76] With no restrictions in place, anyone could initially register as a small-scale fisher or join the state's developing fisheries that coexisted with small-scale vessels and common pool management regimes in many coastal areas.[77] For a vast area such as northern Norway with an abundance of marine living resources and only a limited population at the time, the question of access to the sea became crucial only in the 20th century, when the industrialization of fishing was intensified and fisheries started to deplete. During this period of industrialization, Norwegian fishers had at their disposal funding for modernizing their vessels, but the traditional Sámi fishers were lagging in terms of resources,[78] in addition to being exposed (along with the Kven people) to a severe assimilation policy that has lasted for over 100 years.[79]

In an attempt to determine its international baselines, Norway issued the Royal Decree of 12 July 1935, which established straight baselines offshore north of the Arctic Circle (latitude 66°28.8′N).[80] This assertion was not welcomed by British trawlers wishing to fish in northern Norwegian fjords, since straight baselines imply sovereignty over the enclosed areas as internal waters for the coastal state. Eventually, the dispute between Norway and England over the access to these areas was ruled on by the International Court of Justice (ICJ) in 1951.[81] In the *Fisheries Case*, Norway claimed that the use of Norway's coastal waters was particularly important for the inhabitants of the northern coastal regions, who held the exclusive collective right to use the marine resources in the area on the basis of customary utilization. In preparation for the *Fisheries Case*, Professor Knut Robberstad wrote two legal memoranda asserting Norway's sovereignty over marine resources in Norwegian tidal waters, inter alia, documenting the existence of exclusive rights to fisheries for the local coastal populations.[82] He further described how local courts in Norway made rulings reinforcing fishers' customary exclusive use over fishing grounds as far back as the 1600s until the beginning of 1900s. As the *Fisheries Case* demonstrated, there was an obvious willingness by the state to recognize historical common pool rights among the

[74] Bjørklund, note 66.

[75] Jentoft, note 1, 92.

[76] Else G. Broderstad and Einar Eythórsson, "Resilient Communities? Collapse and Recovery of a Social-Ecological System in Arctic Norway" (2014) 19 *Ecology and Society*, at: https://doi.org/10.5751/ES-06533-190301 (accessed 26 September 2022).

[77] Jentoft, note 1, 91.

[78] Hersoug, note 62, 193.

[79] Henry Minde, "Assimilation of the Sami—Implementation and Consequences" (2003) 20 *Acta Borealia* 121, 121.

[80] Royal Decree of 12 July 1935, relating to the Baselines for the Norwegian Fishery Zone as it relates to the parts of Norway situated to the north of 66°28'8''N latitude.

[81] *Fisheries Case (United Kingdom v Norway)* (Judgment) [1951] ICJ Rep 116. Shortly after the court's decision, the remaining Norwegian base points from the Arctic Circle southward were also established by the Royal Decree of 18 July 1952 relating to the Baselines for the Norwegian Fishery Zone as it relates to the parts of Norway situated to the south of 66°28'8''N latitude.

[82] Jørn Øyrehagen Sunde, "A Geographical, Historical and Legal Perspective on the Right to Fishery in Norwegian Tidal Waters" (2010) 1 *Arctic Review on Law and Politics* 108, 110.

populations of northern Norway (whether they were ethnically Norwegian or Sámi fishers) on the basis of exclusive common use.[83]

While the *Fisheries Case* came to acknowledge historical "common pool" fisheries in northern Norway, eventually the "common access" concept for the entire Norwegian population was consolidated as the "first principle" of marine living resource management,[84] supplanting traditional forms of common pool and local systems of marine tenure. Yet until the late 1980s, thanks to the plentiful supply of marine living resources in the waters of the northern fjords of Norway,[85] there were still relatively few conflicts between the interests of state authorities and local small-scale fisheries.[86] The situation radically shifted owing to an ecological crisis in the Barents' cod stocks,[87] leading the state to implement radical amendments in national fisheries policy in the early 1990s.[88] The keystone of these policy changes was the introduction of the individual-vessel quota system, pursuant to which individual transferable quotas follow the vessel when it is sold.[89] This quota system turned out to be valuable for the Norwegian economy,[90] but favored only those fishers with a certain level of income from fisheries in the years preceding the introduction of the system.[91] The consequence of this regulation was the concentration of quotas on fewer vessels, and this marked the beginning of an increasing privatization process in the fishing sector.[92] The new quota had a particularly negative impact on the small-scale fishers of northern Norway, including the Coastal Sámi[93] fishers, who characterized this scheme as a violation of their historic and collective right to livelihood and culture.[94] Since then, very few Sámi fishers have qualified for an individual-vessel quota, while the majority have been relegated to the insecure and far less attractive competitive quota.[95] In typical fishing communities of the Sámi, such as Kåfjord and Nesseby, less than 10 percent of the total number of fishers qualified for the individual-vessel quota.[96]

[83] "Along the coast are situated comparatively shallow banks, veritable underwater terraces which constitute fishing grounds where fish are particularly abundant; these grounds were known to Norwegian fishermen and exploited by them from time immemorial": *Fisheries* case, note 81.

[84] Svein Jentoft and Knut H Mikalsen, "Do National Resources Have to Be Centrally Managed? Vested Interests and Institutional Reform in Norwegian Fisheries Governance" (2014) 13 *Maritime Studies* 1, 12.

[85] Broderstad, note 76.

[86] Indeed, since the 1950s the local coastal populations of the Northern fjords have often protested against the trawlers fishing in the fjords; Ivar Bjørklund, note 66; Camilla Brattland, "Mapping Rights in Coastal Sami Seascapes" (2010) 1 *Arctic Review* 28, 37; Strøm Bull, note 64.

[87] For a socioecological analysis of the ramifications of the cod crisis on small-scale fisheries, see Svein Jentoft, *Dangling Lines: The Fisheries Crisis and the Future of Coastal Communities: The Norwegian Experience* (Institute of Social & Economic, 1993).

[88] Anita Maurstad, "To Fish or Not to Fish: Small-Scale Fishing and Changing Regulations of the Cod Fishery in Northern Norway" (2000) 59 *Human Organization* 37, 37; Brattland, note 86, 32; Broderstad, note 76; Jentoft, note 1, 94.

[89] Steinar Pedersen, "Fish Farming—Threat or Blessing for Traditional Sami Settlements on the Barents Sea Coast?" (2012) 4 *RCC Perspectives* 52, 53.

[90] Hannesson, note 8, 99.

[91] Brattland, note 86, 32.

[92] Jentoft, note 1, 94.

[93] Brattland, note 86, 32.

[94] Jentoft, note 1, 94.

[95] Svein Jentoft and Siri Ulfsdatter Søreng, "Securing Sustainable Sámi Small-Scale Fisheries in Norway: Implementing the Guidelines" in Svein Jentoft, Ratana Chuenpagdee, María José Barrarán-Paladines et al. (eds), *The Small-Scale Fisheries Guidelines* (Springer, 2017), 268; Hannesson, note 8, 103.

[96] Hersoug, note 62, 196.

Since the establishment of the Sámi Parliament of Norway in 1989, a constant political revival for the Sámi people has been witnessed, which can be traced back to 1917 with the establishment of the first national Sámi organization and following developments at the domestic and international levels.[97] Although Norway eventually became the first state in the world to ratify the ILO Convention no. 169 on the Rights of Indigenous and Tribal Peoples[98] in 1990 and, ever since, has pursued substantial developments with regard to Indigenous rights, considerations of documented Sámi historical or present-day common pool resources management systems in marine areas are not yet developed within Norwegian legislation and litigation. Through the crystallization of sovereignty and sovereign rights over the marine space as provided for by UNCLOS,[99] and a number of changes in domestic fisheries regulations, the living resources of coastal areas became equally accessible to any citizen of Norway as a common good of the state's population. As noted by Hersoug, more than 90 percent of all Norwegian fisheries were progressively enclosed by 2005 through various licensing systems and mandates, although the former Minister of Fisheries argued that "to date no public right has been turned into private property and no one has gained rights in perpetuity to even one kilo of fish."[100] Thus, while the Marine Resource Act of Norway was adopted in 2008 to provide for a *res publica* utilization of the wild marine living resources recognized as a "commons," the existing reality of fisheries in northern Norway forcefully demonstrates that royalties of these public commons are not enjoyed by everyone.

The issue of access to and utilization of coastal waters has increasingly come to the foreground over the past fifty years in response to the rapid development of marine aquaculture throughout the Norwegian coast. Within a short period of time, aquaculture has grown at the highest rate of any sector of the Norwegian economy, rapidly expanding at an average annual rate of 10 percent.[101] The Norwegian aquaculture governance regime could be described as a "multilevel management system," wherein several sector-based ministries and directorates are involved and the decision-making authority is divided among three levels of administration: national, county, and municipal.[102] Aquaculture governance structures are based on the 2005 Aquaculture

[97] Following the establishment of the first national Sámi organization in 1917, the Sámi Committee was created, which in turn contributed to the development of the Norwegian Sámi Council in 1964. In 1947/1948 the Sámi Reindeer Herders' Association in Norway was further established, and soon after the National Association of Norwegian Sámi. In 1956 the transnational Sámi Council was also founded, while the Sámi started to participate in international Indigenous rights fora such as the World Council of Indigenous Peoples (WCIAP) and the International Working Group for Indigenous Affairs (IWGIA). The turning point, though, toward the development of Indigenous rights in Norway was the Alta conflict, which eventually led to the establishment of a Sámi legal commission assessing land rights in former state-owned areas. For a comprehensive discussion on the gradual Sámi politicization in relation to fisheries, see Hersoug, note 62, 195.

[98] Convention (No. 169) concerning Indigenous and Tribal Peoples in Independent Countries (adopted 27 Jun 1989, entered into force 5 September 1991) 1650 UNTS 383 (ILO No. 169).

[99] Norway ratified UNCLOS on 24 June 1996; UN, "Chronological Lists of Ratifications of, Accessions and Successions to the Convention and the Related Agreements" (13 May 2022), *Division for Ocean Affairs and the Law of the Sea*, at: https://www.un.org/depts/los/reference_files/chronological_lists_of_ratifications.htm (accessed 26 September 2022).

[100] Hersoug, note 62, 1.

[101] Nathan Young, Camilla Brattland, Celeste Digiovanni et al., "Limitations to Growth: Socio-Ecological Challenges to Aquaculture Development in Five Wealthy Nations" (2019) 104 *Marine Policy* 216, 216–224.

[102] Andreas Østhagen, Svein Vigeland Rottem, Tor Håkon Jackson Inderberg et al., "Blue Governance Governing the Blue Economy in Alaska and North Norway" (Nord University, 2022) 76.

Act[103] that regulates the use and access to land and water for aquaculture development, while the power to grant aquaculture development permits is vested in the Ministry of Trade, Industry and Fisheries, which has delegated this power to the Directorate of Fisheries. Although marine living resource management in Norway overall underlies the responsibility of the Ministry of Fisheries and Industry and its directorate (DoF), a license for aquaculture development must be given in agreement with a coastal land use plan.[104] Through the Planning and Building Act of 2008, marine spatial planning is delegated to local municipalities for areas up to one nautical mile, ensuring a high degree of discretion for municipal authorities to decide the development of aquaculture.[105] Each of the 280 coastal municipalities of Norway is responsible for planning the usage of coastal waters up to one nautical mile from the coastline,[106] while the Sámi Parliament, the main institutionalized representative body of the Sámi people at the national level, has the right to object to the establishment of an aquaculture project during the coastal zone planning process. This right springs from the legal obligation of state authorities to consult the Sámi Parliament on any issues directly affecting the material culture of the Sámi people, in accordance with Norway's obligations under international law.[107]

While aquaculture began in Sámi areas later than in the rest of the country, over the last two decades the production of all species of farmed fish has been exponentially growing and has increased from around 150,000 tons in 2001 to more than 600,000 tons in 2021.[108] The development of extensive aquaculture throughout the Norwegian coast has, however, required the identification of individual marine property rights. By definition, marine aquaculture is aligned with efforts to enclose maritime space and allocate certain areas to private actors such as extractive industries.[109] Marine enclosures tend thus to prioritize the development of private property rights over a delimited marine area, excluding local communities' common access from a certain area of the sea, and often eroding the significant contributions that small-scale and Indigenous fisheries make to human nutrition. Serious controversies have thus arisen due to the development of aquaculture projects within fishing grounds used by the Coastal Sámi and other small-scale fishers, as well as concerns related to pollution and ecological threats.

[103] Lov om akvakultur (akvakulturloven) LOV-2005-06-17-79.

[104] Østhagen, Vigeland Rottem, Jackson Inderberg et al., note 102, 77.

[105] Until the 1980s, coastal zone planning was limited to the physical planning on the coast and harbor. The latter expanded to one nautical mile beyond the baselines in accordance with Norway's commitments to the EU's water framework directive. See Jahn P. Johnsen and Bjørn Hersoug, "Local Empowerment Through the Creation of Coastal Space?" (2014) 19 *Ecology and Society* 60, 60.

[106] Young, Brattland, Digiovanni et al., note 101, 219.

[107] Kommunal- og moderniseringsdepartementet, 'Avtale om prosedyrer for konsultasjoner mellom statlige myndigheter og Sametinget' (2005); The Consultation Agreement is part of the fulfillment of ILO Convention No. 169, mandating a state obligation to consult Indigenous peoples. An English translation is available at: www.regjeringen.no/en/topics/indigenous-peoples-and-minorities/Sami-people/midtspalte/PROCEDURES-FOR-CONSULTATIONS-BETWEEN-STA/id450743/. See also International Labour Office, *Procedures for Consultations With Indigenous Peoples: Experiences From Norway* (ILO, 2016)

[108] Statistics Norway, "Akvakultur (avsluttet i Statistisk sentralbyrå)" (2021) at: https://www.ssb.no/statbank/table/07326 (accessed 26 September 2022).

[109] Young, Brattland, Digiovanni et al., note 101, 219.

Disputes With Sámi Over Aquaculture in Northern Norway

Traditionally, the welfare of coastal communities of northern Norway has predominantly depended on the relations of local people to wild living marine resources, their command of access to resources, and their ability to exclude others from harvesting these resources.[110] In addition to the crisis in small-scale fisheries owing to the introduction of the quota system, new challenges have appeared over the last few decades, triggered by the rapid growth of salmon aquaculture in the fjords of northern Norway, often referred to as "the new oil" due to the tremendous economic impact that the industry holds. Northern Norway currently accounts for approximately 50 percent of the salmon produced at a national level, with many aquaculture farms being placed in traditional fishing grounds.[111] Traditional fishers see less value created by the development of aquaculture in near-shore areas and the centralization of employment opportunities within a single sector, while aquaculture is also perceived as a threat to coastal species owing to associated noise and pollution.[112]

The willingness of state authorities to enclose marine space and establish aquaculture farms within traditional fishing grounds has faced forceful opposition from small-scale Sámi fishers in northern Norway. For the Sámi people living in coastal areas, coastal fisheries are as significant to their livelihoods as reindeer herding.[113] The introduction of fishing quotas and the ability to trade thereof, as well the subsequent incremental development of salmon farming in traditional areas, have led to a reduction of income for small-scale fishers and have raised issues concerning traditional cultural practices and food security.[114] The environmental concerns pertinent to aquaculture development are also often highlighted by Sámi representatives, who are particularly concerned with whether discharges from the fish farms may affect other species in the fjords, such as coastal cod and wild salmon.[115] Fishers are also concerned that fish farms are being laid over spawning grounds. Given that the vast majority of remaining suitable environments for the development of farms are found in the Norwegian North, there is a growing concern among Sámi leaders that government plans for aquaculture expansion may disproportionately affect their communities and the traditional access to sea by establishing large sea-pens in coastal areas and covering a substantial area of fjords—which possess ideal environmental conditions for the development of aquaculture, but which are also crucial to coastal fisheries.[116] Still, certain Sámi areas, such as Musken in Tysfjord, have welcomed aquaculture, seeing the industry as a means to support the local economy and cultural survival.[117]

[110] Audun Sandberg, "The Analytical Importance of Property Rights to Northern Resources" in Erling Berge, Derek Ott, and Nils Chr. Stenseth (eds), *Law and the Management of Divisible and Non-Excludable Renewable Resources* (Department of Land Use and Landscape Planning, 1994), 374.

[111] Silje Elde, Ingrid Kvalvik, Bjørg Helen Nøstvold et al., *The Arctic as a Food Producing Region. Phase 1: Current Status in Five Arctic Countries* (Nofima 2018) 46.

[112] Hersoug, note 62, 235.

[113] Corinna Casi, "Sami Identity and Traditional Livelihood Practices: From Non-Indigenous to Indigenous Food Frameworks" in Kamrul Hossain, Lena M. Nilsson, and Thora M. Herrmann (eds), *Food Security in the High North* (Routledge, 2020), 123.

[114] Ibid.

[115] Pedersen, note 89.

[116] Hersoug, note 62, 236.

[117] Bjørn Hersoug, Kine Mari Karlsen, Ann-Magnhild Solås et al., *Intensive Aquaculture and Sustainable Regional Development in the Arctic Region—From Controversy to Dialogue (AquaLog)* (Nofima, 2017), 57–58.

Being the main legitimate voice of the coastal Sámi at the national level, the Sámi Parliament of Norway has appeared concerned about the main dangers that aquafarming has posed to traditional Sámi activities and questioned the existing standards for the development of aquaculture. Major challenges such as salmon lice (*Lepeophtheirus salmonis*), fish farm escapes, and the risk of salmon diseases infecting wild salmon populations are noted to be of paramount importance for Sámi small-scale fishers.[118] The Sámi Parliament has acknowledged the government's goal of growth in the aquaculture industry, but has argued that value creation, employment, a welfare policy that benefits the local population, and sustainability of the environment should underpin the government's desire for growth.[119] It further asserted that impact assessments in relation to nature and Sámi culture, business activities, and society must be implemented before large areas are opened up for farming. The Sámi Parliament is essentially not against the coast being divided into production areas covered by aquaculture farms, as long as they do not hinder the traditional activities and the practice of Sámi culture as provided for by Article 27 of the International Covenant on Civil and Political Rights and other international law instruments.[120] Considering though that the common pool access to the sea has traditionally been a manifestation of many coastal communities' cultures, reducing the geographic scope of coastal fisheries to a certain area limited by aquaculture farms seems inherently antithetical to the traditional practice of living resource management.

Although it does not have veto power, and the free, prior, and informed consent (FPIC) principle is not yet established in Norwegian law, the Sámi Parliament nevertheless manages to regularly influence decision making over the use of coastal space within traditional areas through consultations and objections during the policymaking process.[121] A case where the Sámi Parliament's contribution was significant was the 2016 conflict in Spildra between the local fishers and the multinational seafood company Marine Harvest.[122] In this case, despite the initial opposition of the local population (including many Coastal Sámi), the Municipality of Kvænangen authorized the establishment of an aquaculture farm in the east side of Spildra island. The Sámi Parliament, together with the Kvænangen fishermen's association and the Spildra village association, filed a complaint against the municipal council decision made in November 2015, and eventually fought the case at the county level.[123] The effort was eventually successful, blocking the construction of the aquafarm and concluding with the

[118] Ibid, 8–9.

[119] Marianne Balto, "The Role of the Norwegian Sami Parliament in Salmon Management" (2012) 4 *RCC Perspectives* 1, 47–52.

[120] The practice of Sámi culture as an ethnic minority is provided for, inter alia, on the basis of Article 27 of the International Covenant on Civil and Political Rights: "In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language." International Covenant on Civil and Political Rights, 999 UNTS 171 (ICCPR), adopted 16 December 1966, entered into force 23 March 1976, Art 27.

[121] Balto, note 119, 19–20.

[122] Torhild Måkestad Martinussen, "Marine Harvest får nei i Spildra" (29 August 2016), *fiskeribladet* at: https://www.fiskeribladet.no/nyheter/marine-harvest-far-nei-i-spildra/8-1-48690 (accessed 26 September 2022).

[123] Camilla Brattland, "Coastal Sami Communities and the Material Basis for Sami Culture" in Randi Nygård and Karolin Tampere (eds), *The Wild Living Marine Resources Belong to Society as a Whole* (Ensayo#4, 2017), 355.

development of a temporary coastal zone protection plan, wherein the traditional practice of fisheries should be perpetuated.[124]

While such localized efforts may at times have been successful, procedural rights for the Sámi fishers to oppose aquaculture development in traditional marine areas are rather limited. Despite Norway's ongoing initiatives to reinforce Indigenous rights and its commitment to implement corresponding domestic and international law mechanisms, there is a persistent reluctance to recognize Sámi rights to fisheries and, by extension, traditional systems of marine living resource management. The Norwegian government has not yet applied the ILO 169, the UNDRIP, or other international law instruments to Sámi activities in the sea and to local conceptions of space, nor has litigation to date ruled in favor of Sámi maritime activities.[125] However, marine resource utilization, just like reindeer herding, constitutes part of the material basis of the culture of the Sámi people, the inherent right to which is also acknowledged in the text of Article 108 of the Norwegian Constitution and obliges state authorities to create conditions enabling the Sámi people to preserve and develop their language, culture, and way of life, including all its manifestations.[126]

Ocean Commons and Aquaculture Development in Canada

Much as in Norway, harvesting in North American fisheries predates the European settlement of the country now known as Canada by at least 10,000 years. Indigenous peoples, including the Mi'kmaw of Atlantic Canada,[127] Inuit of Arctic Canada,[128] and Tsimshian of Pacific Canada, have relied on the harvesting of marine living resources since early in their respective histories.[129] Reliance on the sea and its resources heavily informed the development of many Indigenous societies within Canada, with several Indigenous populations establishing important spiritual, cultural, and political connections with the seas that persist to this day.[130]

Conceptualizations of water, ocean commons, and common pool marine resources varied significantly across Indigenous groups in precolonized Canada. At least some Indigenous groups developed sophisticated communal management systems during this time, aimed at ensuring the sustainability of fisheries critical for personal and population survival. For example, Indigenous groups on the Pacific Coast employed strategies

[124] Ibid, 355.

[125] On the basis of Article 27 of ICCPR, the Human Rights Committee has several times ruled in favor of the Sámi people to secure the Sámi right to culture; see, for instance, *Ilmari Lansman et al. vs. Finland*, HRC Communication No. 511/1992, http://www.bayefsky.com/pdf/116_finland511.pdf [17.11.2008]; *Jouni E. Lansman et al vs. Finland*, HRC Communication No. 671/1995, http://www1.umn.edu/humanrts/undocs/html/VWS67158.htm [12.11.2008]; *Sanila-Aikio vs. Finland*, Communication No. 2668/2015, CCPR/C/124/D/2668/2015 (2019), https://tbinternet.ohchr.org/Treaties/CCPR/Shared%20Documents/FIN/CCPR_C_124_D_2668_2015_28169_E.pdf; *Ivan Kitok vs. Sweden*, Communication No. 197/1985, CCPR/C/33/D/197/1985 (1988), http://www1.umn.edu/humanrts/undocs/197-1985.html [18.11.2008].

[126] Riksforsamlingen på Eidsvoll, Kongeriket Norges Grunnlov, LOV-1814-05-17, adopted 17 May 1814, art 108.

[127] Jane L. McMillan and Kerry Prosper, "Remobilizing Netukulimk: Indigenous Cultural and Spiritual Connections With Resource Stewardship and Fisheries Management in Atlantic Canada" (2016) 26 *Reviews in Fish Biology and Fisheries* 629, 629–647.

[128] Jessica Hurtubise, *Marine Affairs Technical Report: Evolution of Subsistence and Commercial Inuit Fisheries in the Territory of Nunavut, Canada* (Dalhousie University, 2016), 1–79.

[129] William I. Atlas, Natalie C. Ban, Jonathan W. Moore et al., "Indigenous Systems of Management for Culturally and Ecologically Resilient Pacific Salmon (*Oncorhynchus* spp.) Fisheries" (2021) 71 *Bioscience* 186, 186–204.

[130] Ibid; McMillan, note 127; Hurtubise, note 128.

such as need-based harvesting, regulated access to harvesting, and the targeted harvesting of specific fish species to prevent overexploitation of explicitly defined common pool resources and marine ecosystems. Shortfalls in local catches were addressed through trade with nearby Indigenous groups, with overages for trade typically accounted for in need-based harvesting allowances.[131] Inuit of the area now known as Arctic Bay, Nunavut, similarly stressed the sharing of narwhal harvests with individuals throughout local communities. This strategy, which acknowledged a common pool understanding of living marine resources and sought to ensure that all community members had sufficient access to food amid uncertain hunting outcomes, complemented resource management systems that encouraged sustainability via need-based harvesting, restricted methods of harvesting, and regulated times and places in which harvesting could occur.[132]

Indigenous resource management systems were interrupted by the introduction of European settlers and their associated governance systems. Colonization of Canada by France, Great Britain, Spain, and Portugal began on the island now known as Newfoundland during the 1500s. Colonizers then arrived in mainland Canada circa 1600–1650, first establishing settlements in areas such as Nova Scotia, New Brunswick, Quebec, and Ontario. Both subsistence and commercial fishing became critical activities throughout coastal regions of modern-day Atlantic Canada and the St. Lawrence River, with fish trade supporting colonial expansion in the area and troops in Europe.[133]

Instability in France and British America throughout the 17th and 18th centuries heightened European dependence on Canadian fisheries.[134] Newly established colonial jurisdictions increasingly usurped former conceptualizations of ocean common pool regimes and restricted fishing access for local communities. By 1880, many harvesting methods previously employed by Indigenous fishers had been prohibited under new colonial laws.[135] Canadian legal frameworks evolved to restrict fishing access for certain Indigenous peoples and local communities but provided largely unregulated use of marine resources to colonial settlers, and particularly to commercial fishers working in support of European powers.[136] For example, quota systems were established that based individual allocations on culture-specific metrics, often excluding indicators of socioeconomic need among local and Indigenous communities.[137]

European legal and governance frameworks progressively enclosed marine spaces throughout the colonial rule of modern-day Canada. It was not until achieving independence from Great Britain in 1867 that Canada established a system of fisheries governance separate from that of the colonial European powers. Preliminary aquaculture

[131] Atlas, Ban, Moore et al., note 129, 190.

[132] Aaron T. Dale, *Inuit Qaujimajatuqangit and Adaptive Co-Management: A Case Study of Narwhal Co-Management in Arctic Bay, Nunavut* (ProQuest Dissertations in Publishing, 2009) 6, 27.

[133] Peter E. Pope, *Fish Into Wine: The Newfoundland Plantation in the Seventeenth Century* (University of North Carolina Press 2004), 81.

[134] Joseph Gough, "History of Commercial Fisheries" (12 August 2013), *The Canadian Encyclopedia* at: https://www.thecanadianencyclopedia.ca/en/article/history-of-commercial-fisheries (accessed 26 September 2022).

[135] Atlas, Ban, Moore et al., note 129, 187.

[136] Ibid, 194; see also the discussions in Daniel L. Boxberger, *To Fish in Common: The Ethnohistory of Lummi Indian Salmon Fishing* (University of Nebraska Press, 1989).

[137] Melina Kourantidou, Porter Hoagland, Aaron Dale et al., "Equitable Allocations in Northern Fisheries: Bridging the Divide for Labrador Inuit" (2021) 8 *Frontiers in Marine Science* at: https://doi.org/10.3389/fmars.2021.590213 (accessed 2 April 2023).

was introduced to Canadian waters in the years leading up to independence, with Atlantic salmon and brook trout farming developed in Quebec in 1857 and oyster farming introduced to the maritime province of Prince Edward Island in 1865. Aquaculture operations for rainbow trout (1870s) and Pacific oysters (1920s) were introduced in the decades to follow.[138] The newly founded Canadian Department of Marine and Fisheries, which preceded the modern Fisheries and Oceans Canada, developed a cohesive national aquaculture program circa 1930. However, the implementation of this plan remained limited through to the 1980s, although a number of freshwater and saltwater aquaculture operations were established in the 1950s and 1960s.[139] Notably, early aquaculture operations in Canada primarily supported the practice of recreational fishing rather than commercial or subsistence fishing.[140]

With a relatively small number of aquaculture operations, Canada remained reliant on the harvesting of wild fish stocks for both food security and economic development. Like many of the world's nations, Canada experienced significant and increasing instability in fish stocks amid underregulated commercial fishing practices and the subsequent overexploitation of wild fisheries.[141] Canada responded to this instability with the rapid expansion of commercial aquaculture. In the 1970s, government research facilitated the farming of trout and salmon, two important fish products emanating from Canada. National aquaculture production increased from CAD 35 million in 1986 to CAD 433 million in 1988.[142] By the 1990s, small-scale Canadian fish farms had fallen away owing to widespread consolidated ownership, and escapes from farming pens were identified as a key threat to wild fish stocks.[143]

As of 2022, aquaculture accounts for approximately 20 percent of total Canadian fisheries production.[144] There is a need for balance between the commercial production potential of aquaculture operations and the health of Canada's wild fish stocks. This balance is complicated by the evolving and often overlapping delimitation of colonial and Indigenous jurisdictions with regard to fisheries. Many Indigenous groups agreed to treaties between 1700 and 1900 that allowed for self-governance over local land, water, and natural resources, including the continued implementation of traditional resource management systems over otherwise partitioned or enclosed marine spaces. For example, on the Atlantic coast of Canada, Mi'kmaw First Nations, Maliseet First Nations, and the Peskotomuhkati First Nation at Skutik maintain the right to fish outside of regulated commercial harvesting seasons. This allowance is in keeping with treaty rights established circa 1760–1761 that allow local Indigenous peoples to hunt, fish, and gather in support of a "moderate livelihood." The Supreme Court of Canada both upheld and expanded upon this right in the Marshall case of 1999, where

[138] Donald J. Noakes, "Oceans of Opportunity: A Review of Canadian Aquaculture" (2018) 1 *Marine Economics and Management* 45.

[139] Fisheries and Oceans Canada, *Annual Report 1960* (Government of Canada 1960) 14–16.

[140] Noakes, note 138.

[141] Rowshyra A. Castañeda, Colleen M. M. Burliuk, John M. Casselman et al., "A Brief History of Fisheries in Canada" (2020) 45 *Fisheries* 303, 306–308.

[142] Noakes, note 138.

[143] Ibid. See also Donna Harrison, "Modern Enclosure: Salmon Aquaculture and First Nations Resistance in British Columbia" in Laurie E. Adkin (ed), *Environmental Conflict and Democracy in Canada* (UBC Press, 2020), 51, 55–56.

[144] Noakes, note 138.

"moderate livelihood" was interpreted to include both subsistence and commercial harvesting.[145]

In recent decades, the government of Canada has engaged in a growing movement toward reconciliation with Indigenous groups. This movement has included modern land claims agreements, in which groups residing on previously unceded territory enter into new governance agreements with the government of Canada, and apparent efforts to improve governance rights of Indigenous groups over territories delineated through historic treaties.[146] The concurrent development of Indigenous rights and commercial aquaculture in modern-day Canada has caused growing overlaps in jurisdictions of governance and the establishment of preliminary precedents amid emerging disputes between Indigenous and commercial fishers, including in aquaculture.

Scholars remain divided on the role that Indigenous self-governance may play in Canadian federalism. Part II of the Canadian Constitution of 1982[147] upholds preexisting rights and treaties—including the Indian Act of 1876, which allows for elected tribal councils—while also granting the federal government power to legislate over Indigenous peoples and lands.[148] In 1996, the Supreme Court of Canada ruled that only those Indigenous practices, customs, and traditions established prior to European colonization are protected under the "preexisting rights" language of the Canadian Constitution.[149] This ruling seemingly contradicts the UNDRIP,[150] to which Canada previously objected but which it has now endorsed, in protecting only historical rights to self-determination. It is therefore unclear how the implementation of UNDRIP will occur in Canada and affect Indigenous activities in coastal and marine areas, as government rhetoric suggests that the declaration will *animate* rather than *supersede* constitutional law.[151]

Disputes in Canada Between Indigenous Peoples and Aquaculture Development

In Canada, relations between settler governments and at least some Indigenous groups have been strained since European colonization began in the 16th and 17th centuries. During early periods of European exploration and settlement, many Indigenous peoples were subjected to forcible relocation, loss of rights to self-governance, and widespread institutional programming aimed at regulating or eradicating Indigenous cultures.[152] Such policy had critical impacts on Indigenous access to traditional marine areas, the

[145] Marshall, [1999] 3 S.C.R. 456; see also Kenneth Coates, *Marshall Decision and Native Rights: The Marshall Decision and Mi'kmaq Rights in the Maritimes* (McGill-Queen's University Press, 2000).

[146] Government of Canada, Provisional Annual Report, *Implementation of Modern Treaties and Self-Government Agreements* (2019), available at: https://www.rcaanc-cirnac.gc.ca/DAM/DAM-CIRNAC-RCAANC/DAM-TAG/STAGING/texte-text/treaties-agreements_prov-annual-report-2015-2018_1573224351034_eng.pdf (accessed 2 April 2023).

[147] Canada Act 1982, 1982, c. 11 (U.K.), came into force on 17 April 1982.

[148] Richard Stacey, "The Dilemma of Indigenous Self-Government in Canada: Indigenous Rights and Canadian Federalism," (2018) 46 *Federal Law Review* 669, 679.

[149] R. v. Van der Peet, [1996] 2 S.C.R. 507.

[150] UN Declaration on the Rights of Indigenous Peoples (adopted 2 October 2007), UNGA Res 61/295 (UNDRIP).

[151] Rosemary Nagy, "Transformative Justice in a Settler Colonial Transition: Implementing the UN Declaration on the Rights of Indigenous Peoples in Canada," (2022) 26 *International Journal on Human Rights* 191, 208.

[152] Suzanne Fournier and Ernie Crey, "'Killing the Indian in the Child': Four Centuries of Church-Run Schools" in Roger C. A. Maaka and Chris Andersen (eds), *The Indigenous Experience* (Canadian Scholars Press, 2006), 143; Linda Tuhiwai Smith, "Colonizing Knowledges" in Roger C. A. Maaka and Chris Andersen (eds), *The Indigenous Experience* (Canadian Scholars Press, 2006), 91, 94–97.

management of marine resources, and cultural and spiritual connections with marine spaces and species. The diversity of Canada's Indigenous populations, as well as its vast geography more generally, has led to significant inequality with regard to fishing rights. Both historically and contemporarily, the government of Canada has entered into agreements with individual Indigenous groups or with a collective of localized communities. Indigenous groups have therefore negotiated specific access rights to marine resources, which may be preferential relative to those of other communities. This leaves some Indigenous groups struggling to enforce fishing rights against the state and commercial actors, as well as against other Indigenous communities. For example, Labrador Inuit have been disadvantaged by culturally inappropriate means for determining commercial fishing quotas in northern Labrador[153] and also receive a disproportionately low catch quota relative to Nunavut Inuit and Nunavik Inuit with overlapping fishing areas.[154]

Fisheries disputes over Indigenous rights and treaty laws also persist in southern parts of Canada. For example, on the Broughton Archipelago of Canada's Pacific Coast, Indigenous and non-Indigenous activists raised concerns over salmon aquaculture for several years, beginning circa 1990. Local aquaculture operations used open-net pens as a means of caging salmon nearshore in natural waters, allowing for the free exchange of waste, chemicals, and disease between farmed and wild fish.[155] Wild salmon populations have rapidly declined since the introduction of aquaculture to the region, with the number of adult salmon returning to the area to spawn decreasing by 97 percent in 2002 and 88 percent in 2003. This contraction in the population was attributed partly to pollution and disease spread by the farms.[156]

The issue on the Broughton Archipelago emerged as a true fisheries dispute, with activists protesting salmon farming in the region between 2017 and 2019. Indigenous groups specifically argued that local fish farms were operating in traditional First Nations territories without consent from appropriate governing bodies, and were damaging natural resources (e.g., wild fish stocks and broader marine food webs) on which Indigenous groups relied for cultural and spiritual practices, further impeding rights to self-determination. Some protestors occupied buildings or land maintained by the farms, disrupting day-to-day activities but allowing for general operations to continue.[157]

Mediation efforts between provincial and federal governments and affected Indigenous groups resulted in an important legal precedent: Commercial aquaculture firms operating on the Broughton Archipelago now require consultation with and consent from

[153] Kourantidou, Hoagland, Dale et al., note 137.

[154] CBC News, "Betrayal Alleged as Nunatsiavut Looks for Legal Advice Over DFO Handling of Shrimp Access" 22 September 2020 at: https://www.cbc.ca/news/canada/newfoundland-labrador/nunatsiavut-shrimp-stocks-betrayal-federal-government-1.5732514 (accessed 26 September 2022).

[155] Justin Page, "Salmon Farming in First Nations' Territories: A Case of Environmental Injustice on Canada's West Coast" (2007) 12 *Local Environment*, 613, 614–616.

[156] Gary D. Marty, Sonja M. Saksida, and Terrance J. Quinn, "Relationship of Farm Salmon, Sea Lice, and Wild Salmon Populations" (2010) 107(52) *Proceedings of the National Academy of Sciences—PNAS*, 22599.

[157] Erica Gies, "First Nations Test the Political Water with Fish Farm Protests" 13 October 2017, *Hakai Magazine* at: https://www.hakaimagazine.com/news/first-nations-test-political-water-fish-farm-protests (accessed 26 September 2022.).

relevant Indigenous governments.[158] This ruling has critical implications for the hierarchy of access and governance in the waters of Canada, where significant portions of Arctic, Pacific, and Atlantic coastal regions now legally fall under Indigenous governance.[159] The federal government further pledged to phase out, by 2025, all open-net salmon farms in the Discovery Islands of Pacific Canada, which is a key migration route for wild salmon. However, this proposed policy remains contested owing to the prospective job and revenue losses that closing open-net farms would cause for commercial investors and local communities.[160]

The specific impacts that emerging policies will have on broader governance of Canadian waters remain unclear. On and around the Broughton Archipelago, Indigenous communities may individually grant or withhold consent for aquaculture operations.[161] Owing to the relatively small geographic area of the region, communities that do not consent to aquaculture may still be affected by nearby farms. Disallowing Indigenous groups from consenting to fish farms on their respective territory may similarly breach rights to sovereignty and self-determination. These complications highlight a potential issue in Canada's efforts to establish more equitable access to marine spaces and resources: Current jurisdictional scales may be unsuitable for local conditions, a key principle of effective common pool resource governance.[162] In short, Canada appears to be struggling to merge existing marine enclosures with common pool conceptualizations of coastal waters, undermining efforts to achieve equity in marine management.

Rethinking Aquaculture Development in Light of "Ocean Commons"

In both Norway and Canada, access to marine spaces and their living resources was first self-regulated by Indigenous and other coastal groups on the basis of local community-based norms. This preliminary usage of marine areas and resources led to the designation of resource management systems in which both access to and conservation of the seas were universally regulated by those residing in a community or region. Like elsewhere, the idea that common pool resources are susceptible to overuse and are thus prone to overexploitation was gradually echoed by the sovereign states of Canada and Norway, and eventually led to a radical change in the property institutions that govern coastal areas.

Common pool regimes and local forms of marine living resource management were soon replaced by or were largely faded out in response to state regulations. However, the conceptual histories of "ocean commons" in Norway and Canada have diverged since the period of colonization: While Norway institutionalized a common-access resource system with universal scope for all residents of Norway or specific subnational

[158] Sam Adkins, Lisa Jamieson, Terri-Lee Oleniuk, and Sabrina Spencer, "UNDRIP as a Framework for Reconciliation in Canada: Challenges and Opportunities for Major Energy and Natural Resources Projects" (2020) 58 *Alberta Law Review*, 339, 354–355.

[159] Terry Fenge, "Inuit and the Nunavut Land Claims Agreement: Supporting Canada's Arctic Sovereignty" (2007) 29 *Policy Options*, 83; Peter J. Usher, "Environment, Race and Nation Reconsidered: Reflections on Aboriginal Land Claims in Canada" (2003) 47 *The Canadian Geographer* 367.

[160] Melanie G. Wiber, Charles Mather, Christine Knott, and María Andrée López Gómez, "Regulating the Blue Economy? Challenges to an Effective Canadian Aquaculture Act" (2021) 131 *Marine Policy* 3.

[161] Adkins et al., note 158.

[162] Sarah C. Klain, Rachelle Beveridge, and Nathan J. Bennett, "Ecologically Sustainable but Unjust? Negotiating Equity and Authority in Common-Pool Marine Resource Management" (2014) 19 *Ecology and Society* 52.

regions (today reflected in the 2008 Marine Resources Act), Canadian waters were subject to colonial laws that restricted usage to certain peoples and groups. In both cases, the proprietary evolution of marine resource management, whether through the establishment and centralization of fisheries quotas or through the current ever-increasing development of aquaculture, demonstrates that it predominantly revolves around privatization of resource management and enclosing the commons, aligned with neoliberal economic developments and contemporary market needs.

In recent years there have been efforts by the governments of Norway and Canada to improve Indigenous rights to culture and self-determination, including governance over territorial waters and marine resources. Indigenous groups in both states have raised concerns over the impacts of aquaculture operations, and particularly the effects of disease and fish lice on wild fish stocks and local fishing practices. Local communities have today been granted a voice in aquaculture development and ocean access within their respective states, but the legal nature of this voice differs between regions and groups. On the basis of ILO169, as well as Article 27 of the ICCPR in connection with Article 108 of the Norwegian constitution,[163] Coastal Sámi communities of Norway may voice their concerns in the decision-making process through a consultation process established for any matter that may affect the traditional exercise of the Sámi culture, but they do not hold veto power in determining outcomes of aquaculture development. Meanwhile, in Canada, a precedent has been set in which at least some Indigenous communities hold a potential veto over aquaculture planning.[164] However, the fragmented nature of Canada's Indigenous population means that neighboring communities may differ on decisions related to aquaculture projects, and farms may be established in a consenting community with risks spreading to nearby nonconsenting groups.

Reapproaching marine living resource management in both states through the concept of "ocean commons" could foster national policies toward further implementing Indigenous rights. In Norway, the Sámi Parliament has previously suggested that those communities living in regions largely dependent on local natural resources should have "a first and collective" right to use these resources in order to maintain their livelihood, culture, and language.[165] In the 2013 *Voldstad* case, although not referring to the Sámi use, the Supreme Court of Norway supported the principle that fish resources are "a common pool, owned by the people, but managed by the state."[166] Qualitative studies have also demonstrated that reopening the fisheries commons may be key to protecting the livelihoods of small-scale fishers and their customary rights to the sea in areas where legal pluralist forms of resource management are still applicable.[167] In 2018, the Community Council of Tromsø announced that the local authorities were willing to halt further aquafarming developments in the municipality, demonstrating that state authorities, while not specifically taking into account traditional conceptions of space

[163] The recent *Fosen* case established that Article 27 of the ICCPR should be read in the context of Article 108 of the Norwegian Constitution that imposes a duty on state authorities "to create conditions enabling the Sami people to preserve and develop its language, culture and way of life"; see (*Fosen*) Supreme Court of Norway, Decision HR-2021-1975-S, [99].

[164] Adkins et al., note 158.

[165] Sametinget, Sametingets melding om fiske som næring og kultur i kyst- og fjordområdene (Sametinget, 2004).

[166] (*Voldstad*) Supreme Court of Norway, Decision HR-2013-2200-P.

[167] Søreng, note 69, 12; Apostolos Tsiouvalas, "Mare Nullius or Mare Suum? Using Ethnography to Debate Rights to Marine Resources in Coastal Sámi Communities of Troms" (2020) 11 *Yearbook of Polar Law* 245, 245–272.

by small-scale fishers, have started to acknowledge the pressing issues that coastal communities face in light of aquaculture.[168] However, existing state practice does not interpret the traditional use of marine resources as a part of the material basis of the Sámi culture, and thus denies any communal conception of fisheries or basis for local common pool resource use.

Although highly profitable, the incremental development of aquaculture has come to further alientate state policy from traditional conceptions of resource management and to promote a further enclosed system with permits and party transferrable quotas. For Indigenous and local small-scale fishers, the introduction of quotas in the previous century was a turning point toward the privatization of fisheries and the concentration of property rights in individual commercial actors by excluding a large proportion of small-scale fishers from the emerging industry. With aquaculture further expanding throughout the Canadian and Norwegian coasts, the working conditions of the former common pool resource users continue to deteriorate.[169] The very idea of establishing private property institutions over the marine space impacts Indigenous and local stakeholders for whom the access to the sea is not only a proprietary good but also a cultural practice.

Rethinking the access to the sea as a *res communis omnium* may thus be a way for the sovereign states of both Canada and Norway to introduce legal developments toward the formalization of fishing tenure rights and toward applying the right of self-determination to Indigenous and local small-scale fisheries, the situation of which remains critical for the time being. A critical reconsideration of the "commons" in the context of aquaculture offers both challenges and opportunities for the future of fisheries management, and marine policy more generally, but could further promote the implementation of the United Nations Code of Conduct for Responsible Fisheries that sets out a range of principles and standards for the development of aquaculture operations.[170] The Code focuses on the environmental sustainability of fisheries, as well as on the livelihoods in local communities, and calls upon countries to promote the participation of both local communities and fish farmers in aquaculture development. Reintroducing concepts of the commons amid ongoing aquaculture development may further be aligned with UNDRIP, which both Norway and Canada support, by ensuring participatory rights that extend beyond consultations.[171] Under UNDRIP,

> States shall consult and cooperate in good faith with the Indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other

[168] Jenny Hjul, "Tromsø in Shock Fish Farm Ban" 22 November 2018, *Fish Farmer* at: https://www.fishfarmermagazine.com/news/tromso-in-shock-fish-farm-ban (accessed 26 September 2022).

[169] It is worth mentioning that the need for the recognition of Sámi rights to the marine space and living resources was also highlighted by the Committee on the Elimination of Racial Discrimination in January 2019; UN Doc CERD/C/NOR/CO/23-24, 2 January 2019, [21(d)] and [22(e)].

[170] On the basis of Articles 7, 9, and 10 of the FAO Code of Conduct for Responsible Fisheries, aquaculture development should strongly consider the needs of coastal Indigenous and local communities, "Code of Conduct for Responsible Fisheries." See the 1995 UNFAO Code at: https://www.fao.org/fishery/docs/CDrom/aquaculture/a0805e/documents/Code%20of%20Conduct%20for%20Responsible%20Fisheries.pdf (accessed 26 September 2022).

[171] The UN Human Rights Committee has previously referenced FPIC on several occasions, including its General Comment on ICCPR Article 27, and in its views on the *Poma Poma* case. See, respectively, Human Rights Committee, CCPR General Comment No. 23: Article 27 (Rights of Minorities) Adopted at the Fiftieth Session of the HRC, on 8 April 1994, CCPR/C/21/Rev.1/Add.5, General Comment No. 23, [7]; Human Rights Committee, *Ángela Poma Poma vs. Peru*, Communication No. 1457/2006, views adopted April 24, 2009, [7.6].

resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.[172]

The latter, if read together with Article 25 of UNDRIP, further extends the application of FPIC to marine and coastal areas traditionally owned, occupied, or used by Indigenous peoples in light of self-determination. UNDRIP does not explicitly provide for the conceptualization of traditional areas as "commons"; however, it could be used to reinforce the scope of binding provisions such as Article 13(2) of the ILO169 Convention that extends the interpretation of the term "lands" to the totality of traditional areas including marine areas,[173] providing thus the potential for acknowledging common pool management systems in traditional waters. While the actual endorsement of UNDRIP provisions into domestic law may still be far from materializing owing to its nonbinding status, in the 2018 *Nesseby* case, the Supreme Court of Norway stated that UNDRIP "must be regarded as a central document within indigenous law, as it reflects the international law principles in the field and gained support from a large number of states."[174]

Rethinking oceans governance through the lens of "commons" pushes toward the reconciliation of both local and Indigenous social and legal instruments with wider political and economic networks deriving from state law, contributing thus to a more pluralistic conceptualization of the marine space. While legal pluralism government models are predominantly reduced to theoretical investigations, significant developments across the world have demonstrated that they can be implemented in practice.[175] Legal pluralism is reflected in the foundation of Norway's Sámi policy,[176] as well as in case law that acknowledges Sámi customary rules as a legal source.[177] Likewise, several Supreme Court judgements in Canada have expressed the existence of legal pluralism in Canada, given that issues are often raised regarding the relationship between common law, civil law, and Indigenous legal orders.[178]

Concluding Remarks

The historical and continuing tension between the idea of free access to marine areas and the coastal states' desire for enclosure and territorialization has gradually led to the enclosure of a vast segment of traditional areas for the purposes of aquaculture

[172] UNDRIP, Art 19.

[173] Article 13(2) of the ILO 169 Convention provides that the use of the term "lands" in Articles 15 and 16 shall include the concept of territories, which covers the total environment of the areas that the peoples concerned occupy or otherwise use. That said, territories may arguably also include marine areas, as explained for the case of Norway in Kystfiskeutvalgets utredning, "Retten til fiske i havet utenfor Finnmark" (18 Februar 2008) NOU 2008:5, 270.

[174] (*Nesseby*) Supreme Court of Norway, Decision HR-2018-456-P, (case no. 2017/860), [97].

[175] See, for instance, Rohe, Govan, Schlüter et al., note 56; Søreng, note 69; a deeper engagement with legal pluralism theories extends beyond the scope of this article.

[176] In a 1997 speech, the King of Norway, HM King Harald V, stood before the Norwegian Sámi Assembly to publicly apologize for the former assimilation policy, and stated that "The state of Norway was founded on the territory of two peoples—the Sámi people and the Norwegians."

[177] In the *Selbu* case, for instance, the Supreme Court acknowledged the Sámi customary practice of traditional land use/herding rights on the basis of immemorial usage (*alders tids bruk*); *Jon Inge Sirum v. Esslan Reindeer Pasturing Distric*t, No. 4B/2001 (21 June 2001).

[178] See, for instance, *Derrickson v. Derrickson*, [1986] 1 S.C.R. 285; *R.* v. *Côté*, [1996] 3 S.C.R. 139; *Delgamuukw* v. *British Columbia*, [1997] 3 S.C.R. 1010.

development. Even if institutional changes in property rights allocation enhance the overall productivity of the maritime economies of sovereign states and create net benefits for societies, structural changes often happen to the detriment of local users of marine areas. Both Norway and Canada provide tangible examples where previously common pool resource management systems have been significantly impacted by the state's increasing interventionism, introduction of fisheries regulations, and strict-to-access quotas. The apogee of this systematized effort for re-territorializing coastal waters, disregarding any preexisting norms and communal conceptions of resource management, has been the rapid development of aquaculture over the last few decades, which inherently does not provide for the multipurpose use of coastal areas.[179] While aquaculture development imposes a conceptual change in the property institutions that govern the marine space, the histories of both regions demonstrate that treating the coastal areas as a "commons" is consistent with the very essence of the oceans as spaces of movement, transportation, and sources of subsistence for local and Indigenous communities.

Emerging policy in both Norway and Canada apparently seeks to, at times, reconcile traditional conceptualizations of the marine space and common pool regimes with established domestic jurisdictions and marine enclosures. These policy efforts typically have the dual goal of promoting both environmental sustainability and equity of access and usage, attempting to balance the needs of diverse stakeholders in an evolving global marine space. However, such developments remain highly localized and are still far from becoming a systematized part of official state policies when it comes to Indigenous and small-scale fishers. Without institutionally anchored rights for coastal communities and traditional activities and secured participation in decision-making processes, traditional coastal areas may further be enclosed for the sake of aquaculture. In the meantime, the rapid development of this incrementally expanding industry further complicates the governance of coastal areas and resources: In both states, aquaculture has been differently perceived by multiple stakeholders and has often led to domestic disputes, since the enclosure of a delineated area of the marine space for aquaculture purposes seems antithetical to the idea of common pool access to the sea, and has drastically affected the preexisting status quo of small-scale fisheries in coastal areas. As emerging societal and environmental conditions demand the rethinking of governance frameworks, expanding aquaculture industries likewise requires agility in marine policy and consideration of the interests of local users in marine areas and resources.

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[179] Hersoug, note 62, 236.