Fish Drought

Life Project of Koli Fishers in the Aftermath of Cyclones

Jelena Johanna Salmi

The metropolis of Mumbai is an expanding city built on reclaimed estuarine lowland. As such, it faces significant risks from tropical cyclones and other water-related effects of climate change. Indigenous Koli fishers, the original inhabitants of the estuarine archipelago, navigate within the entangled threats of natural hazards and terrestrial expansion that undermine their traditional livelihoods. In this paper, I examine fishers' theorizations of the causes of increasing cyclonic activity and their claims for the equal treatment of farmers and fishers in the aftermath of cyclonic storms Kyarr and Maha in 2019–2021. I suggest that Koli compensation claims articulate a rights-based discourse of fishers as displaced "farmers" of the reclaimed estuary experiencing a prolonged, state-produced "fish drought." Tracing the logic behind this discourse, I argue for the need to examine how climate change effects are experienced and theorized within temporal trajectories meaningful for those affected and how they are harnessed in the service of social agendas. For Kolis, cyclones provided an opening for furthering a long-standing life project to make the state recognize their right to land and water.

Online enhancements: appendix.

Introduction

The dominant ways of talking about climate change frame it as a collapse of a stable order, a sudden disruption of secure life. This understanding, however, emanates from a privileged standpoint. Seen from the perspective of indigenous experiences, knowledges, and histories, climate change does not appear as something radically different but as a continuation of a longer trajectory of marginalization, dispossession, and genocide that began with colonialism (Callison 2020; Chakraborty and Sherpa 2021; Davis and Todd 2017; Krause 2022; Whyte 2018). Indeed, the history of colonialism is intimately entangled with the history of climate change (Davis et al. 2019; Lewis and Maslin 2015) as settler colonialism, and its extension into advanced petrocapitalism has transformed the Earth by clear-cutting forests, transporting animals and plants, and displacing native populations (Davis and Todd 2017:770). Consequently, the heightened susceptibility and vulnerability of indigenous populations to the effects of climate change must be seen as historically and politically created—it is far from an unfortunate coincidence (Whyte 2018).

Building cities on land reclaimed from the sea is part of the colonial logic of terraforming. The "terrestrial responses" of colonial powers have been predicated on removing and controlling water through extensive reclamation (Jensen 2017:225), meaning that numerous colonial cities are directly threatened by climate change (Ghosh 2016:37). In the manner of many coastal cities, the modern metropolis of Mumbai stands on land recovered from the sea, a process that creates an arbitrary boundary between land and water (Ghosh 2016; Mathur and da Cunha 2009; fig. 1). According to a common narrative, the area consisted of seven distinct islands—Colaba, Old Woman's Island, Bombay, Mazagaon, Parel, Worli, and Mahim—before reclamation by the British between 1709 and 1728. What constituted distinct islands, however, is highly subjective, as large swaths of land were submerged during high tides and the monsoon season; these areas, neither land nor sea, were used for fishing by the indigenous Koli population (Riding 2018).

The popular myth of seven islands emerged from Irish newspaper editor Robert Murphy's map in the 1840s, which marks out areas of land permanently above sea level and thereby hides a more complex amphibious reality. This myth has since been used to glorify reclamation as a colonial project. With the narrative of seven islands united by man, reclamation has assumed an aura of heroism—it has been crafted into a story of man conquering the wild sea (Riding 2018). Despite having vanished from view, however, amphibious geographies insist on a spectral presence, making themselves corporeally and sometimes dramatically known during the southwest monsoon, when water again submerges low-lying areas. Watery surges from June to September force people to find new ways of keeping water out of the land, including floodgates, seawalls, and pumping stations. Indeed, the monsoon and the sea have come to be considered enemies: "Mumbai is shifting from welcoming or abhorring a soak by the monsoon to fearing and fighting being flooded by it" (Mathur and da Cunha 2009:4).

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Figure 1. Metropolis of Mumbai stands on reclaimed lowland. All photos taken by the author.

Floods, common during the monsoon season, reveal that despite all human efforts, Mumbai remains amphibious: "Not quite firm land and not quite open water, or sometimes one and sometimes the other" (Krause 2017:403).

Terrestrial responses have not only altered topographies and fragile ecosystems but also shaped the experiences and practices of people who have historically organized their lives around the ebb and flow of water and other natural rhythms of the Earth. Indigenous Koli fishers are accustomed to an amphibious way of life; as a common Koli saying goes: "The sea is our field" (*samudr amchi sheti hay*). The estuarine archipelago of Mumbai has been home to the Kolis at least since the twelfth century, possibly longer—in any case, centuries before the Portuguese (1534–1661) and the British (1661–1947) established their colonial dominions. For Kolis, accelerating urbanization—which first began when the southern part of the archipelago passed from the Portuguese to the British as part of Catherine of Braganza's dowry—has not primarily meant "development" but a rupture of viable more-than-human relations and livelihoods. From the Koli perspective, this process has been fundamentally unjust, as they have not benefited from it. Quite the contrary—as they point out, terrestrial expansion has displaced their fishing to the "deep sea," where the colonizing grip on the sea of industrial recharge, plastic pollution, untreated sewage, and other land-based effluents is weaker. Indeed, the lack of sewage treatment is producing toxic environments for both human and nonhuman residents of the estuary (Anand 2022); the creeks that remain, including Malad and Manori Creeks in the northern suburbs, have turned into toxic "gutters," as one of my interlocutors put it, gutters where nothing survives. Meanwhile, deep-sea fishing is becoming volatile, insecure, and dangerous as the intensity, frequency, and duration of tropical cyclones over the Arabian Sea increase (see Deshpande et al. 2021). In recent years, India's western coastline has been ravaged by several cyclonic storms, to the detriment of fishers' livelihoods. Many Kolis have abandoned fishing altogether; amphibious fishers are now forced to make choices between life on land and unsheltered fishing in the "deep sea," where competition over scarce resources is fierce. Families that do continue fishing rely on the labor of migrant workers, who directly bear the risk of climate change effects on their bodies. Kolis, for their part, experience cyclones primarily through lost catch and diminished livelihoods.

This article explores indigenous Koli fishers' theorizations and political responses to increasing cyclonic activity in coastal Mumbai. It zooms in on a particular case of Koli claim making taking place from 2019 to 2021. The monsoon rains normally soak Mumbai from around mid-June until late September. From June 1 to July 31, fishing is banned in Maharashtra to prevent accidents at sea during the monsoon and to allow fish time to breed. After the official ban, Kolis traditionally abstain from fishing until around mid-August, when they celebrate the annual festival of Narali Punav ("Coconut Full Moon Day"). The festival includes sacrificing coconuts to the sea to make it calm, thus beginning the fishing season for Kolis (see appendix, available online). In autumn 2019, however, Mumbai witnessed

a series of cyclonic storms and depressions directly after the monsoon season, which prevented Koli boats from fishing. The Regional Meteorological Centre issued several warnings recommending that all fishers avoid sailing in the Arabian Sea. Kyarr, lasting from October 24 to November 1, was classified as a super cyclonic storm and made 2019 the most active North Indian cyclone season on record. Many productive fishing days, even weeks, were lost. Bombay duck and ribbonfish, local fish delicacies that had been hung to dry on bamboo poles, turned into gray, slushy mush because of incessant rain. The Koli community faced tremendous loss—and they still had to pay their workers. The dire situation led them to demand compensation for destroyed equipment and lost fishing days from various state agencies through their cooperative societies and regional and national fisher organizations, arguing that fishers should be treated on par with farmers experiencing drought. Perhaps paradoxically, they referred to the postcyclone situation as a "fish drought," no different from drought experienced by farmers.

Where does the idea of drought-facing farmers of the sea come from, and why is its mobilization a viable political strategy for Kolis in a postcyclone context? How does the ethnographic case of Koli claim making advance our understanding of indigenous mobilizations in the face of climate change? This article analyzes postcyclone politics in a holistic frame, relating it to Kolis' social practices, ontological understandings of human-sea relations, long-standing claims to status as original inhabitants, and demands for the equal treatment of farmers and fishers.

Ethnography of "Farming the Sea"

The article draws on eight months of ethnographic fieldwork (2019–2020) on Madh Island, a peri-urban area in northern Mumbai (see appendix). A rather secluded place, Madh Island brings together an eclectic mix of fishing villages, military cantonments, luxury flats, and Bollywood shooting locations. The three Koli villages of Madh Island are among the few places in the city where a traditional fishing method based on stationary bag nets (*dol*) and tides is still widely used. Accessed from the mainland only by a small ferryboat or a long, unlit road, Madh Island has been able to steer clear of real estate developers' interest—at least to some extent. Large areas of land remain undeveloped and are used by Kolis to sun dry fish in the traditional way, which requires a lot of open space (fig. 2). With the planned Madh-Versova bridge, however, the lushly green island overlooking the Arabian Sea is about to become a prime real estate destination. Thus, the fishing villages of Madh Island constitute an ethnographic site struggling to maintain traces of traditional amphibious living in the face of expanding urbanization. Many other Koli villages have completely abandoned their traditional practices in favor of extractive fishing methods introduced from abroad, including purse seine fishing and trawling.

Figure 2. Drying fish on Madh Island, January 2020.

"Koli" is a vague term covering a number of communities living in western India and having a caste status inferior to the Kunbis, cultivating castes (Hegde 2015). In Maharashtra, the term is generally used synonymously with "fisher"; however, not all Kolis are fishers. Indeed, Kolis are divided into several subcastes, such as Son, Mangela, Vaiti, Mahadev, and Agri. While Son, Mangela, and Vaiti are traditionally fishers by occupation, the latter two groups have relied on rice farming and salt production for their livelihoods. Kolis are also divided by religion: the Koli community of Madh Island comprised both "Hindu Kolis" and Roman Catholics—known as "East Indian Kolis"—converted by the Portuguese.

Kolis claim to be the earliest inhabitants of Mumbai. Related to this, the Versova-based association Koli Mahasangh aims to "increase political awareness of Kolis as a tribe of Mumbai, a tribe of Maharashtra," as a central figure of the association told me. Among its many activities, Koli Mahasangh campaigns for all Koli subcastes to be classified as a Scheduled Tribe (ST) in the reservation system of India, which would enable them to access desirable benefits such as political representation, as well as reserved seats in government jobs and central government–funded higher education institutions. Thus, ST status is a potential route to livelihoods beyond fishing. Kolis' claim to their status as original inhabitants has also been a central part of their political strategies to retain control or rights over urban spaces (including drying grounds) in the absence of evidentiary documents, with collective memory and history politically evoked (Nair 2021:114–115). Indigeneity, then, is mobilized simultaneously to continue fishing and to move beyond it.

The emphasis on Koli unison across differences of caste, class, subcaste, and religion is not merely a discursive political strategy mobilized in interactions with the state but has a basis in everyday social and cultural practices. On Madh Island, Narali Punav, associated with Hindu traditions, was celebrated equally by all Kolis, irrespective of religious vocation—it was seen as a "Koli festival," first and foremost. Moreover, many of the "Hindu Kolis" revered Roman Catholic deities, celebrating the festival of the nativity of Saint Mary and the annual feast of Saint Bonaventure. Social relations also extended beyond divisions of subcaste and occupation. For instance, during my fieldwork, I visited an Agri Koli village close to Bhiwandi, about 50 km northeast of Madh Island, together with an extended family of 16 people comprising fishing Kolis, mostly women and children. In the village, we visited three Agri households where fishing Kolis had distant relatives. In one of the houses, we participated in a *puja* and shared a lavish lunch consisting of several fish dishes—the fish being brought by us—followed by a visit to village temples. The inhabitants of the village used to practice illegal sand mining using old nonmechanized fishing boats brought from Madh Island. This form of livelihood, however, had been discontinued, and villagers were now engaged in land-based wage labor such as driving tempos. The old boats were used for subsistence fishing in the Ulhas River. Villagers also practiced agriculture and gifted us with vegetables to take back to Madh Island. Thus, fishing and farming were linked through family bonds and social visits.

As part of my ethnographic fieldwork, I worked as an apprentice on one of the wharfs (*dhakka*) of Madh Island, sorting, cleaning, drying, and transporting marine fauna together with Koli women and migrant workers. Dried fish was the backbone of dol netters' livelihoods, and a considerable amount of our working time was dedicated to preparing it. Depending on its quality, dried fish was sold as a delicacy or to be used as fish meal in poultry production and fertilizer in soybean fields. Thus, fishing materially supported agriculture. In my interlocutors' view, they were feeding the city both directly through fishing and indirectly through their contribution to agriculture and poultry production.

Aside from participant observation in and from Madh Island, my ethnographic fieldwork comprises documentary analysis and semistructured interviews with Kolis of Madh Island, as well as with influential Koli figures residing in other fishing villages of the city during and after the 2019 cyclones. In addition, I interviewed and interacted with migrants coming from Uttar Pradesh and Andhra Pradesh and working for the Kolis. The interviews were conducted in a mixture of English, Hindi, and Marathi and included significant code-switching. All names used in the article are pseudonyms.

Life Project in Two Mumbais

Kolis' political subjectivities as "farmers of the sea" relate to a particular ontological understanding of human-sea relations. In Kolis' view, the coastal sea is not an external material entity from which to extract as efficiently as possible but a collectively managed and cultivated social domain. The sea is also a god to be respected and revered through rituals such as Narali Punav. However, my intention is not to suggest that their political activities somehow flow organically from fishers' ontological understanding of human-sea relations. Indeed, the theoretical premises of the so-called ontological turn in anthropology have received their fair share of criticism, not least for confining actors within separate, incommensurable worlds (Ingold 2018; Nadasdy 2021); they have also been criticized for anthropocentrism (Gad, Jensen, and Winthereik 2015) and for supposing ontologies to be preexisting entities that can be grasped by the researcher and accepted as "real" at face value without the intentions behind them being investigated (Vigh and Sausdal 2014). Drawing on this critique, I situate Koli claim making in the context of wider regional, national, and global flows such as the colonial history of reclamation, modern urban expansion, agricultural and fishing policies, and migration—as well as climate change.

Kolis' discourses and practices related to "farming the sea" reflect social priorities and agendas as much as they indicate a relational, lived ontology and are, thus, better approached through the lens of practical ontology, which attends to the politics of worlds in making (Jensen 2021). A science and technology studies–inspired interpretation of practical ontology

calls for attention to fragmentary practices and materiality instead of singular wholes or orders (Gad, Jensen, and Winthereik 2015). Methodologically, this necessitates abandoning essentializing conceptions of indigenous people's environmental preferences and being sensitive to the nuances of how they live and think in and with localities without being entrapped by them. In other words, ethnographic interlocutors' accountings of the world must also be taken as "events in the world" harnessed in service of social agendas (Helmreich 2011:138). Practices—including discursive ones—enact realities instead of just characterizing them (Gad, Jensen, and Winthereik 2015); they are intentional and performative.

In their ethnographic film, *Sagar Putra: Offspring of the Sea*, Das Sarkar, Kamath, and Dubey (2021) have described Kolis as living in two Mumbais at once: Mumbai of the sea and Mumbai of concrete. My interlocutors' relationship with the Mumbai of concrete—"the terrestrial propertied city" (Das Sarkar, Kamath, and Dubey 2021)—was ambiguous: in some contexts, they were fiercely critical of it, whereas in others, they expressed a wish to be included in it or took advantage of the new opportunities afforded. There was also a tension within the community between defending traditional rights to marine, intertidal, and terrestrial commons and investing in individual property. In Madh Island, the prospect of real estate development and better connectivity was viewed positively by some Kolis, especially the younger generation, who had aspirations and ambitions beyond fishing. Some Kolis were already beginning to engage in small-scale real estate business, renting out sea-facing apartments to newcomers in the city. Others displayed more mixed attitudes, fearing that "development" in Madh Island might lead to Kolis losing their access to land and water. As one of my interlocutors put it, "Development is good and bad at the same time."

Because of the incoherence of Kolis' strategies, I find it useful to theoretically draw on the work of Blaser, Feit, and McRae (2004), who suggest approaching indigenous peoples' agency in the context of terraforming development as sustaining "life projects" based on "densely and uniquely woven 'threads' of landscapes, memories, expectations and desires" (Blaser 2004:26). While the relationship of life projects to development is often antagonistic, indigenous peoples' agency cannot be conceptualized merely as resistance; it is more complex and can involve contradictory features. Indeed, rather than simply opposing terrestrial development, Koli demands focus on "having a meaningful degree of control over . . . life as being-placed-in-the-world" (Blaser 2004:35), which includes strategic incorporation of opportunities offered by development—engaging in real estate is one concrete example of this.

I use postcyclone politics as a lens to understand Kolis' practical life project, which aims at securing a sea-based future in a concrete city for practicing fishers while, at the same time, making room for younger Kolis to pursue their ambitions beyond traditional livelihoods. These simultaneously advanced aims, tailored for two futures, explain Kolis' incoherent strategies of positioning themselves as legitimate claimants.

Coastal Sea as Cultivated Commons

The engine buzzes loudly and lets out black, billowing smoke. Manoj, a skinny man in his early 20s, is sitting close to the engine. He steers the boat away from rocks that lift their bare heads above the water. Ram, not much older than Manoj, functions as the captain of the small fishing boat, owned by a Koli fisher family. The family employs the young men for a period of nine months: September to May. Around the time of the full moon and the new moon, when the Earth, the moon, and the sun line up, the two men set out to sea with long, cone-shaped dol nets. Measuring distance by time and using rocks as landmarks, the men navigate to their fishing spot: it is a 45-minute motorboat ride from the turtle-shaped rock formation sacred to Kolis.

Arriving at the spot, the men tie the nets to two iron stakes fixed firmly in the sandy bottom of the Arabian Sea. The nets are allowed to stay under the water for around four hours, letting the natural force of the tidal current direct fish, cephalopods, and crustaceans into them. The men wait patiently, remaining attentive to the direction of the tide, the weather, the movement of floats, and the sounds of fish—just as their Koli employers have instructed them to do. The captain, in particular, must be able to understand and react to subtle signals in the marine environment. If he falls asleep or misreads the right time to act, the net releases the catch. This can happen if the tide changes or if there are too many fish—or, as often happens nowadays, too much plastic waste and blooming jellyfish—and the net tears apart. Every experienced fisherman knows that the ever-changing marine environment can quickly transform the trap into a liberator.

If the men are skilled, attentive, and lucky enough, the long wait culminates in the drama of entrapment. The men grab the slippery ropes attached to the net and start pulling, pulling, pulling with all their strength. This is arduous work that requires balance and coordination from the fishermen (fig. 3). It also takes time, as dol nets can be up to 40 m long. As the mouth of the net surfaces, fish, snakes, crabs, squid, and prawns can no longer escape; the human act of pulling has transformed them into catch. The men heave the net toward sunlight, little by little, until finally, the bottom pocket (*khola*) reaches air. They empty the catch into bamboo fish baskets to inspect it: soles, anchovies, small prawns, ribbonfish, and a few Bombay ducks entangled with plastic waste. The fish wriggle desperately and open their mouths in an effort to gulp water—the sound of two worlds meeting.

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According to some theories, the ethnonym Koli derives from the Marathi word for spider, *kolī*. Indeed, Kolis and spiders have a lot in common: much as spiders spin their masterful webs, so did traditional Koli fishers weave their dol fishing nets, an indigenous form of a fixed tapering net or bag net. Neither spiders nor Kolis are able to see the perceptual world of their prey, yet their carefully crafted traps are like "texts on animal

Figure 3. Migrant workers pulling the dol net, October 2019.

behavior" (Gell 1996:27) or descriptions of their ontological worlds. The design of the webs and nets is ideal for trapping certain kinds of animals: spiderwebs are "fly-like" (Uexküll 2010:190), whereas dol nets can be described as fishlike and sealike. Dol nets are carefully designed and modified, with a mesh that gradually decreases in size toward the *khola* end. The nets are set in tidal streams and held in place by iron stakes dug into the sea floor—to be convincing for the prey, the net must blend in with the color and assume the rhythm of the sea, up to the point of almost losing itself.

Since tidal currents are influenced by the moon and the sun, following the moon phases is central in the work of dol netters. Around the time of the full moon and the new moon, the lunar and solar tides reinforce each other, leading to spring tides. This results in a good catch according to the Kolis' traditional ecological knowledge. *Ekadashi*, the eleventh lunar day in the Hindu calendar, marks the beginning of a time of bountiful catch (*udhan*). *Udhan* alternates with *bhang*, a period of weak tides and slow movement of fish, when, according to one of my fellow sorters, "one might as well kill flies." Nighttime high tide (*il*) and low tide (*vat*) are the best times to go fishing since many targeted species, including prawns, are nocturnal animals. In the morning, the fishing villages of Madh Island usually bustle with activity as migrant workers and Koli men unload the nightly catch and sorters begin their work on the wharfs.

Dol nets were traditionally handmade from jute and cotton, but in contemporary Mumbai, a private company supplies Koli fisher cooperative societies with bright turquoise polymer raw material. Parts with different mesh sizes are stitched together by male Muslim villagers employed by the cooperatives—these men give the net its cone-like form. A single net consists of different parts, with the smallest mesh size at the very end of the long structure. The cooperative societies buy the raw material in bulk and sell the finished nets to their members at a fair price. Each fisher belongs to a cooperative tasked with providing fishing gear, ice, cold storage facilities, and diesel to its members and selling the catch in the fish market. The oldest cooperative on Madh Island had been formed in 1951, and in August 2019, it had more than 1,000 members, out of which 261 were actual boat owners.

In addition to the net, dol net fishing requires the stakes to which the net is tied, anchors that keep the net in place, and floats that keep the mouth of the net open. The stakes were traditionally made of bamboo, but iron had become the preferred material due to its longevity, as the stakes remain even after the fishing season finishes at the end of May. In the following season, they are not necessarily used by the same fishers: it is perfectly acceptable to fix one's nets to other people's stakes if the original owners are not using them. According to a traditional system of marine tenure, different fishing villages have their own fishing areas in the coastal waters, while cooperative fisher societies settle possible conflicts between different fishing villages and individual families (see also Venkataramani 2021*a*).

My interlocutors on Madh Island compared the family-based fishing areas to farmers' cultivated fields. By likening themselves to farmers, dol netters underlined that fishing requires care and that it is fundamentally a place-based activity.

An elderly Koli fisher compared fishing to farming as follows: "They both depend on luck. In the same way that farmers have their place, we have our own place. Everybody has their own place where the ropes are tied up." He further explained how both farmers and fishers feel love for their respective "fields" and how both agriculture and dol netting are sustained by this strong affective state: without it, there is no motivation to cultivate. Thus, the sea is far from an ungoverned, wild space where the rule of capture reigns. The process of modeling the marine environment after a logic of care transformed the trap from a technology into an ecology, "a design for mutual cohabitation" (Corsín Jiménez and Nahum-Claudel 2019:395). For Koli dol netters, the coastal sea—as well as land—was a collectively cultivated social space, a commons: "Kolis, similar to indigenous societies in other parts of the world, refer to alternative ways of holding land or sea where customary, social or sacred relations besides the property relations are deeply valued" (Kamath and Dubey 2020:87; see also Parthasarathy 2011).

Gudeman (2001) argues that most economists and political scientists have interpreted the commons—such as the sea—as a material entity external to human community. In his conceptualization, however, the commons is, rather, a shared interest or value. It contributes to the material and social sustenance of people with a shared identity, to the extent of forming the core—or what Gudeman calls the "base"—of community, representing temporality and continuity. Commons and people are ontologically inseparable—an idea that emerges clearly from Koli semiotic and material practices. Kolis not only live from the sea (Smith 1977) but also are themselves of the sea. As one of my interlocutors, an "East Indian" Koli boat owner, Victor, said, "The sea is our home. We are its protectors because it feeds us, right? The sea feeds us. Our families survive on it. So many houses and families survive due to the sea. If there was no sea, then what would we do?"

Kolis also enact the sea as a god. The sea is seen as possessing agency and has to be respected by human beings. Thus, it is ritually appeased at the beginning of the fishing season, around mid-August. The festival of Narali Punav marks the end of Shravan, the fifth month of the Hindu solar calendar, and includes sacrificing coconuts to the sea (mentioned above) to calm it down before fishing starts. Sacrificing coconuts is part of maintaining good relations with it, an enactment of responsibility and reciprocation. Through the ritual, Kolis treat the sea as an affective "home" that has to be cared for in appropriate ways so that they can live ethically within a "web of Earth's living beings" (Puig de la Bellacasa 2017:129). The sacrifice performs an ethicopolitical commitment to participate in this interlacing web without assuming the position of master. Ritually caring for the sea, Kolis are also caring for themselves—indeed, the practices of sacrificing coconuts and cultivating the sea while aligning one's temporalities with the natural rhythms of the Earth enact a more-than-human world of mutual dependence.

In my view, it is important to analyze Koli dol netters' political actions in light of their commoning practices and ontological understandings. However, it is equally important to consider colonial and postcolonial policies that have fundamentally shaped the character of fishing. Thus, I will next turn to policies that have turned fishing into a more-than-Koli undertaking.

Capitalist Transformation: From Fishers to Boat Owners

Both the colonial and the postcolonial state has relied on an idea of fishers as unfit for capitalist development without state interference. Fishery cooperatives have been a central tool for the state to transform an inherently "primitive" practice into a capitalist undertaking. Frederic Nicholson, director of the Madras Fisheries Bureau, insisted on cooperative production as the only way to uplift fishers from poverty and free them from the oppression of middlemen (Subramanian 2009:108–109). Fishers were seen as "less diligent and thrifty" than farmers (Subramanian 2009:107)—an attitude that has continued to the postcolonial era.

In 1946, the Cooperative Planning Committee recommended that state aid should be mediated through cooperatives alone. Thus, in contemporary Mumbai, fishing has become virtually impossible without the support of cooperatives, which function as mediating bodies between fishers and the government on various issues, including subsidies, reimbursements, compensation, regulations, safety advice, infrastructure works, and the registration of boats and boat crews. The cooperatives are in recurring contact with the Department of Fisheries, responsible for industry management and development.

As Gayatri Nair (2021:80) explains in her detailed ethnography of the capitalist transformation of Mumbai's fisheries, cooperatives are a prevailing feature of the current political landscape in Maharashtra, dominating both agriculture and fishing. Through cooperatives, fishing has been increasingly directed from building a strong domestic market for consumption toward export-oriented growth with state-subsidized, mechanized gear and craft (Nair 2021). This state-supported technological change within fisheries has led to a gradual decline of small-scale fishing and the development of distinct classes of boat owners and workers (Nair 2021:76). However, Kolis also use cooperatives for their own ends; indeed, cooperatives campaign for the rights of fishers by writing appeals to political actors in the state and central government. On Madh Island, cooperatives are among the primary actors speaking for the rights of so-called traditional fishers.

Capitalist transformation steered by cooperatives has brought in a new class of actors to Koli fisheries. Traditionally, it was Koli men who collectively ventured out into the sea, while women stayed on the land taking care of sorting, drying, and marketing. This has radically changed; on Madh Island, men had largely abandoned the arduous occupation, operating as owners, while the actual fishing labor is in the hands of migrants. Sagar, a Koli fisherman in his 70s, told me that in his childhood, the boat crews consisted of men coming from Ratnagiri and Satpati, both coastal areas in Maharashtra. These

men belonged to the Agri community, who are considered to be a Koli subcaste. Around the turn of the century, however, Kolis started employing North Indians, many of whom practice agriculture and small-scale inland fishing in their home states. During my fieldwork, the boat crew consisted of migrant labor coming from the Sultanpur District in Uttar Pradesh, with Koli men usually functioning as their supervisors or managers. Since skilled workers were hard to find, Koli employers built long-lasting relationships, even friendships, with their workers—some migrants had worked for the same family for more than a decade. However, Koli employers complained that they were finding it increasingly difficult to pay their workers because of decreasing catches, unpredictable weather, and rising petrol prices, which required many to take on debt; workers were paid for the whole season according to the contract, even if weather conditions made fishing impossible. There were, however, cases where migrants had been refused payment or were paid too little, and word of untrustworthy owners quickly spread among workers. Indeed, coming from the same district within Uttar Pradesh, the workers on Madh Island were relatives, neighbors, or at least acquaintances—this social capital enabled them to control the social environment of fisheries to some extent.

Migrants from the southern state of Andhra Pradesh work as sorters and net menders in small-scale Koli fisheries. While sorters are mostly women, net menders are all men working alongside Koli women on the wharfs. The former group comes from the drought-prone Kurnool District, where they work as agricultural laborers and small-scale farmers, while the latter group is from Visakhapatnam, where they also do net-mending work. Most sorters divide their time between Mumbai and Kurnool—fishing and farming—traveling back home for the monsoon season. Over time, some of the sorters had settled on Madh Island permanently and established dry fish businesses. These merchants with a migrant background had become an integral part of local fisheries, functioning as intermediaries between Kolis who supply dry fish and agents who buy it for agriculture and poultry production. Thus, Koli fisheries on Madh Island are, in practice, sustained through the labor of a much larger community of fishers and farmers.

Livelihood Drought

Hikaa. LAND 01. Kyarr. Maha. In August–December 2019, the city of Mumbai witnessed a series of cyclonic storms and depressions (see appendix). Kyarr, which peaked as a super cyclonic storm on October 27, remains one of the most intense tropical cyclones in North Indian Ocean history. Fortunately, there were no direct casualties in Mumbai. For Koli fishers, however, the storm surges amounted to a severe livelihood catastrophe—especially as cyclonic activity coincided with the peak fishing season—as fishing was made impossible for weeks. During this time, fisher cooperatives received warnings from the Regional Meteorological Centre and the Department of Fisheries asking them to direct all boat owners to abstain from fishing. On Madh Island, information about storms and cyclones was disseminated by loudspeakers, phone calls, and WhatsApp messages. For Kolis, then, cyclones were not primarily about water intruding on land and wreaking havoc—although the storms also destroyed boats and fishing equipment—but about being unable to harvest the sea. Thus, they experienced the situation as a "drought" in their livelihoods, a "fish drought."

According to my interlocutors, the weather conditions of autumn 2019 were unprecedented. Of course, there had been major storms before—"once every five or 10 years"—but nothing of this extent and magnitude. The chairman of a local fisher cooperative explained this to me on December 4, 2019, showing a new storm warning that he had just received on WhatsApp. In his view, storm formation was connected to unsustainable development and urban expansion, which he attributed to "newcomers" in the city. The chairman suspected that pollution and tree felling for the purpose of urban development were related to cyclonic activity:

> Now the reason for this [increasing cyclonic activity], that I am not able to say *perfectly*, but *pollution*, I mean, trees are cut down. . . . So this *global warming* is happening because of that. . . . Then storms are forming. So the *effect* is that buildings are built everywhere, trees are cut, this is a *pyramid* of *climate*. There's fault in that. That could be the reason.[1]

The link between pollution and intensifying cyclonic activity in the Arabian Sea has also been scientifically established. Indeed, the weakening of southwesterly lower-level winds and easterly upper-level winds during the past 30 years corresponds with anthropogenic emissions of aerosol, producing changed wind patterns that create a favorable environment for tropical cyclone intensification in the Arabian Sea (Evan et al. 2011). In other words, pollution directly affects regional climate.

Amid cyclonic activity and repeated red alerts from the government, demands for compensation started arising among the Kolis. These demands kept on intensifying and expanding as the season went on and new storms ravaged their fishing grounds. Regional and national fisher associations, including the National Fishworkers Forum and the Akhil Maharashtra Machhimar Kruti Samiti (AMMKS), along with various local fisher cooperatives, organized protests and petitioned state agencies (see also Srivastava et al. 2022:114). As government decisions regarding compensation lagged, the untoward effects of Cyclone Nisarga (June 2020), the COVID-19 lockdown, and Cyclone Tauktae (May 2021) also became part of Koli claim making, giving it additional weight. One of my interlocutors, a state-level advocate of traditional fisheries, characterized Koli demands in mid-September 2019 as follows:

> Fishing has been closed from 1 August up until now. Why? The sea is rough. Wind is rough. It is not possible to go into

1. English words occurring in otherwise Hindi and Marathi sentences are italicized.

> the deep sea. The weather department has ordered that fishing should not be practiced before September 16. So, tell me, what will fishermen eat? Two months ago, there was still the ban. And after that, they have been sitting at home for two months. What's the use? We have demanded for the government to compensate 1.5 months' loss to fishermen.

Another interviewee, a Koli fisheries advocate on a national scale, told me in late December 2019 that Koli fishers were demanding a one-time compensation of 25,000 rupees per family for the "loss of properties and loss of business." According to him, the government should provide for the welfare of fishers in the same way that it provides for the welfare of farmers. This was a perception shared by every Koli who talked to me: as farmers of the sea, they should be given the same benefits as farmers of the land. As a village-level Koli activist put it, "Our demand is that all the benefits and schemes should be the same for farmers and fishers." In Kolis' view, the differential treatment of farmers and fishers was fundamentally unjust. An elderly fisherman who had also functioned as a cooperative chairman explained this to me: "Farmers get growth when there is rain. In case of heavy rains and loss, the government helps them. But at the same time, for fishermen, if we don't get fish, the whole day is wasted. Farmers get assistance from the government, but fishermen get nothing."

In India, farmers are provided with relief packages from the State Disaster Response Fund and the National Disaster Response Fund when natural disasters destroy their crops. Since 2016, farmers have also been able to get subsidized insurance coverage under the central government–sponsored Pradhan Mantri Fasal Bima Yojana (PMFBY), which compensates for yield losses resulting from unseasonal and extreme weather conditions. Weather conditions and compensations were a frequent topic of discussion in the *dhakka*—thus, Kolis knew, for instance, that in Andhra Pradesh, the new YSR Free Crop Insurance Scheme benefits landowners in case of crop failure without the burden of a premium. In stark contrast to this, existing insurance schemes for fishers in India cover only death and disability under the Group Accident Insurance Scheme for Active Fishermen, while public and private insurance companies cover accident and total vessel loss. There are no insurance schemes comparable to the PMFBY in place to deal with the impact of the climate crisis on fisheries. Meanwhile, the one-time compensation allotted to small-scale fishers under disaster relief programs has been nominal and difficult to obtain (Lopes 2021). Kolis experience this discrepancy as unjust. In their view, fishers and farmers are essentially the same: cultivators. For them, there is no marked difference between cultivating the land and cultivating the sea.

Koli claims highlight their resistance to accepting the role of passive victims (Srivastava et al. 2022). Indeed, they frame their demands in the language of "justice," "rights," and "compensation," rather than of "relief" or "aid." In India, the National Disaster Management Authority (NDMA) functions as the apex body in the field, mandated under the Disaster Management Act, 2005. The act sets out the duties and powers of the NDMA and state governments in providing relief but does not enact disaster relief as a constitutional right justiciable in a court of law (Chhotray 2014). On the contrary, the recourse of relief is a moral stance of victimhood, locking the state and its subject into what Chhotray (2014:218) calls a "relief relationship." The Kolis, however, do not position themselves as helpless victims of "natural" calamities to be provided for by the compassionate state but as "farmers of the sea" unjustly displaced by neoliberal growth imperatives that drive terrestrial expansion and force them to fish farther out to sea. Consequently, their claims enact a moral stance of dignified deservedness and reveal an understanding of how vulnerability to climate uncertainties is, at its core, historically and politically created:

> Why should we need to suffer for this *development*? Our sea, our creeks have been converted into *gutters*. Our Koli community did not used to practice *deep fishing*. Because we used to get fish here *nearby*. But due to *reclamation, pollution*, we need to go very far to get fish. In other words, our community did not get any share in this development. . . . *As a Koli community, the original tribe of Mumbai*, Koli community needs a *share* in this *development*.

The demands for compensation must be analyzed against a background of wider claims for fair share in development justified on the basis of being "the original tribe of Mumbai." Claiming an ST status for the Koli community and an agricultural status for fishing is a part of Kolis' politics, centered on negotiating a livable future in a coastal environment that has already undergone fundamental changes and irreversible destruction. They are pragmatically attuned efforts to gain a foothold—to lay claim to a future—using tools that are available for them. Thereby, my Koli interlocutors' life project problematizes presentations of indigenous struggles merely in terms of an opposition between modernity and traditional, place-based indigenous knowledge (cf. McGregor 2004).

According to Ingold (2000:59), fishing is often naturalized as akin to the practices of nonhuman animals, whereas agriculture is seen as a cultural intervention in nature; while farmers cultivate their crops in bounded fields, fishers chase theirs in the vast nothingness of the wild ocean. Furthermore, fishers are often portrayed as intrinsically "risk-loving" people unwilling to abide by safety regulations—a discourse that neglects the role of fishery management in generating risky behavior (Pfeiffer and Gratz 2016). According to Koli dol netters, government policy favored trawling and purse seine fishing, which had gradually taken over the fishing industry since the early 1980s (Deshmukh 2013) with the advent of the so-called Blue Revolution (https://serendipityarts.org/writing_initiatives/on-one-side-lies-the-moon-on-the-other-lies-the-bread/). Indeed, many Kolis had simply abandoned their traditional methods in favor of "deep-sea" trawling and purse seine fishing, which can be legally practiced in the exclusive economic zone: the area of the sea stretching from 12 to 200 nautical

miles from the coast.[2] This transition—along with coastal degradation due to population expansion, infrastructure projects, increasing urbanization, and the migration of fish to deeper locations—had forced dol netters, too, to travel farther out into the sea to sustain their livelihoods and to incur greater risk (Adam et al. 2021; Senapati and Gupta 2015). In my interlocutors' view, then, cyclone risk was politically generated, and they had the right to be compensated. Therefore, instead of requesting "help," they framed their demands in the language of customary rights and just compensation (Srivastava et al. 2022). In one of the petitions addressed to the Commissioner of Fisheries by the AMMKS in November 2019, the use of purse seine nets and LED lights, as well as soaring diesel prices, was mentioned as justification for compensation, along with the effects of cyclones. In that petition, the demand had increased to 25,000 rupees per fisherman and 100,000 per boat owner. However, in autumn 2019 and winter 2020, my interlocutors remained skeptical that they would actually receive anything. According to a representative of a fisher cooperative interviewed in January 2020, "We are ready to give reports regarding the difficulties we faced, but fishermen will hardly get anything. . . . It was also featured in the newspaper, but no follow-up has taken place. Ministers just talk, but nothing happens."

Amid an atmosphere of disappointment, Kolis emphasized how fishers' moral character and collective solidarity enabled them to survive despite the lack of government support. This feature, I was told, separated them from farmers: "We don't get fish, but farmers are the ones who commit suicides. But do our people commit suicides? The government is taking their [the farmers'] side; they are not taking Koli people's side. Kolis are facing so many problems, but we do not commit suicide." This view of neglected but perseverant fishers and government-sponsored yet suicidal farmers was echoed by many of my interlocutors, including an influential fisheries activist on Madh Island:

> I have seen in the news how ministers go to farming villages hit by heavy rains or drought. To those who grow crops for the city people. We are also farmers; we also do farming in the water, don't we? We take fish out from the water. There is much greater risk involved in our work. Just imagine if we get caught up in a cyclone; we'll all die. But us, we never commit suicide. But no government official or minister comes to us saying that "since there has been so much rain, these people are not getting any fish. We need to give something to them since they have suffered such a catastrophe." No one says that.

While farmers and fishers were similar in their relationship to the environment, fishers were represented as displaying moral perseverance. They survived and carried on despite climate change–induced natural calamities, state neglect, urban expansion, and the implementation of Coastal Regulation Zone norms, which defined certain fishing villages as "slums," threatening them with redevelopment. The ability to bounce back, adapt, and carry on was characterized as a collective Koli state of being developed through overcoming various adversities that threatened their livelihoods. Importantly, perseverance was connected to the functioning of their cooperative societies and informal networks of care. While cooperative societies could provide loans to individual fisher families facing difficulties, neighbors and relatives (across divisions) helped one another to overcome hard times by sharing food. Farmers were seen as operating in a more individualistic manner, which made them weak.

The Kolis had also appropriated Shiv Sena's concept of Bhumiputra (Sons of the Soil) used in pro-Maharashtrian, anti-immigrant rhetoric, which has been characteristic of the party since its inception in 1966.[3] They have, however, reframed the Bhumiputra concept as the "original sons of soil" who have suffered injustice at the hands of the uncaring state, and they have subsumed the discourse into the Koli narrative of perseverant indigeneity. Social media has also had an important role in the construction of Koli self-awareness as a heroically resilient yet neglected people. For instance, in June 2020, after Cyclone Nisarga had struck Mumbai, I received a political poem on WhatsApp from a Koli woman who functioned as a state-level representative of fisherwomen. The poem describes Kolis as unyielding "Bhumiputra" from whom the government has "taken everything" by "destroying the marine environment" and "developing the land" against the Kolis' wishes: "Fishers don't need your help. What is help? Koli people don't want your loans, either! . . . Let there be stormy winds! Let there be torrential rain! Let the tsunami come! We will just bear that on our bodies! We are not afraid! . . . We don't need your help!" In the poem, the tribal identity manifests itself in a rather heroic and self-sufficient form through the refusal of state help. Indeed, the poem highlights well the fraught relationship between autonomous indigeneity and claims for state help; as part of their life project, Kolis constantly negotiate a balance between reaching out to the state and claiming autonomy.

After Tauktae in 2021, the Maharashtra government finally provided Koli fishers with compensation of 25,000 rupees for completely damaged boats and 10,000 for those that were partially damaged (Johari 2021); this has, however, been difficult to obtain because of the strict eligibility criteria and arduous paperwork that the process requires (Kalyanikar 2022). Potential

2. Currently, the area up to 5 fathoms in depth is reserved exclusively for traditional, nonmotorized craft. In addition, no trawl gear with a mesh size less than 35 mm or purse seine gear on mechanized fishing vessels is allowed within territorial waters extending to 12 nautical miles. Dol netters fish both within and beyond territorial waters, depending on the size of their boat.

3. Uddhav Thackeray from Shiv Sena served as the chief minister of Maharashtra during the latter phase of my fieldwork. The party formed a government in fall 2019 by joining hands with the Indian National Congress and the Nationalist Congress Party.

beneficiaries must first prove their right to compensation. Furthermore, it does not cover loss of livelihood due to the inability to go out to the sea and to "cultivate crops." Focusing on clearly demonstrable physical damage to boats and fishing equipment, it completely ignores the Kolis' lived experiences of fish drought resulting from their inability to cultivate the sea.

Clearly, one-time payments focusing on damage to narrowly defined material means of production cannot sustain Koli livelihoods in the long run in a situation where increasing cyclonic activity poses a serious risk to fishing communities—especially in the form of lost fishing days. Hence, Koli calls for fisheries to be granted agricultural status have intensified in the aftermath of the cyclones. Their demands include minimum support prices for the produce, insurance coverage, and a loan waiver scheme comparable to that for farmers (see also Gaon Connection 2021). Furthermore, under the municipal election of 2022, fishing Hindu Kolis, Agris, and East Indians have come together politically under the banner of Agris, Kolis, and East Indians (AKEI) with the theme of *Apla Gaav, Aapla Raaj* (Our Village, Our Rule) to push for the fishing and land rights of Bhumiputra (Ashar 2021). This demonstrates how climate change comes to participate in indigenous life projects, shaping and igniting preexisting political subjectivities and claims as well as providing a fruitful context for their articulation.

Conclusion

In his book *The Great Derangement: Climate Change and the Unthinkable*, Amitav Ghosh (2016:39) writes about how colonial land reclamations and urban planning in Mumbai have made the city into "an extraordinary, perhaps unique, 'concentration of risk'" sitting "upon a wedge of cobbled-together land that is totally exposed to the ocean." Risk has intensified gradually, with each new reclamation project, causeway, and embankment further solidifying the edge between land and sea while erasing the estuarine archipelago's amphibious character. For practicing Koli fishers, the metamorphosis of a dynamic, amphibious reality into two distinct orders—Mumbai of the sea and Mumbai of concrete (Das Sarkar, Kamath, and Dubey 2021)—signifies both loss and opportunity: How to build a future for the community when one leg stands firmly in the sea and relies on commons while another one is taking steps in the terrestrial city of private property? How to secure livelihoods and cultural conservation when living in two Mumbais at once?

This article has used the aftermath of the 2019 North Indian cyclone season as a lens into Kolis' dilemma. I have examined Kolis' experiences and theorizations of cyclones, as well as their claims for compensation, situated against the background of colonial land reclamation and capitalist urban expansion, which deny the estuarine nature of Mumbai. I have approached cyclones as events that reveal, ignite, and provide an arena for expressing the deeper, entrenched experiences of injustice, dispossession, and marginalization resulting from the violent imprint of the land-sea binary by the colonial and the postcolonial state. As I have shown, the aftermath of cyclones provided an opportunity for Kolis to further their aim of securing a future in two Mumbais at once—an aim that I have conceptually grasped through the notion of an indigenous life project (Blaser, Feit, and McRae 2004).

Kolis' life project is not an example of a "pure" ontology translated into political action. While Kolis have historically lived amphibiously, colonial and capitalist development has led to land gradually seeping into the sea. On the one hand, Kolis criticize the violent process of terraforming, which destroys coastal waters; on the other, they call attention to the unjust way in which land has taken over the sea without the extension of land-based policy measures like subsidized insurance programs to sea-based livelihoods and without appropriate recognition of Kolis as original inhabitants entitled to their fair share of development. Indeed, Kolis' life project focuses simultaneously on sea rights and landrights. Furthermore, their claims include both ontological (how relations between human beings and the sea should ideally be organized) and more pragmatic (how access to resources should be guaranteed and protected by the state in the given situation, in which the coastal sea has been largely destroyed by land-based processes) dimensions. This explains why their political action does not correspond to a "solid" ideology or ontology but proceeds by negotiating the making of a common world from a marginalized position—a form of pragmatically attuned improvisation. Kolis' life project thereby involves contradictions, tensions, and inconsistencies.

In the aftermath of cyclones, Kolis presented themselves as farmers of the sea unfairly displaced from coastal waters into the risky zone of the deep sea. Through this claim, they underlined how risk is historically and politically produced, not an inherent part of fishing activity. Their discourses thereby assigned accountability to the terraforming colonial and postcolonial state.

As boat owners, Kolis experienced the cyclones in the form of diminished livelihoods—a fish drought—mobilizing an analogy to farmers losing their crops. As I have suggested, this analogy is not merely a discursive political strategy: it has a basis in passive fishing practices like dol netting, in indigenous understandings of human-sea relations, and in social and cultural connections between Koli fishers and Agri farmers—an association that is also promoted through Kolis' quest for tribal status. Furthermore, migrant workers who practice small-scale agriculture back in their home states participate in the daily operations of Koli fisheries. In practice, then, fishing is sustained by farmer-fisher assemblages. Koli fisheries are also materially connected to agriculture, as dried bycatch fish is sold to be used as poultry feed and fertilizer in soybean fields.

Beyond these concrete connections, Kolis' farming discourse must also be understood against colonial attitudes of fishers as "less diligent and thrifty" than farmers (Subramanian 2009:107), which led to the formation of fishery cooperatives in an effort to develop fisheries. Thereby, seeking agricultural status for farming is not merely an effort to access government benefits but can also be seen as a way of claiming equal social

status, an effort to become recognized as important contributors to food security and national economic development.

To sum up, this article has contributed to understanding indigenous politics emerging from climate change. It has argued for the need to move away from essentialized understandings and conceptualizing cyclones and other climate change effects as participants in indigenous life projects. This necessitates attention to how climate change effects are experienced and theorized within temporal trajectories that are meaningful for those affected and how they are harnessed in the service of wider social agendas. It also requires sensitivity to the multiplicity of aspirations that emerge from situatedness in the continuously shifting socio-material environment. It is in these environments where people find themselves reflecting on the questions of what should be and what can be, given the circumstances. Life projects are improvised in relation to these questions.

Comments

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On Dark Mutualities and Mumbai's Sons of the Marine Soil

In her paper, Jelena Salmi takes readers along to think through a specific kind of disaster: the drought in fish sustained by fishermen barred from engaging in the art of capturing—that is, of harvesting fish—because of cyclones whipping up the sea. Storms fail fishermen indirectly or not at all. At stake here is, as Salmi beautifully shows, less the moment of bearing the burden of the violence unleashed by tropical superstorms than that of being left empty-handed as weather forecasts and state institutions coalesce to deny fishermen access to the sea or, better, to tend to the customary plots the marine commons are for Mumbai's Koli fishermen.

Salmi skillfully shows how present-day Kolis come to engage Mumbai's sea through a terrestrial lens. This comes to pass in their managing the watery expanse off the shore as a commons divided into plots where fisherfolk hang their nets on steel rods anchored to the seafloor. And it comes to pass when Koli fishermen sometimes, and for what looks like tactical reasons, render themselves as farmers—harvesting fish in their nets to feed urban denizens and their livestock farms. This serves as a striking reminder of the arbitrariness of the sea-land binary that continues to inform social theory and marine governance alike. Koli fishermen's theorization of the sea as commons or of the production of cyclones at the hands of onshore urbanization and pollution serves only as a further reminder of the way land and sea appear entangled in time, no matter the amount of edge work that goes into rendering them distinct.

Salmi's greater claim—that climate change or cyclones and degrading fishing grounds are participants in "life projects," rather than, say, externalized hazards or victimizing conditions—provides a promising angle to think about the experience of environmental transformation in an Asian polycrisis. On one level, it provides scope for tracing how shifts in weather patterns come to figure within the actual politics of indigenous actors—countering the oftentimes blatantly romanticized images of indigenous lifeways and their relevance to come to terms with the Anthropocene. On another level, it enables the exploration of indigenous maneuvering within and through and along with all possible other participants in such life projects. In short: it calls attention to the politics of environment and of access and vulnerability, which, as Salmi flags here and there, appears uneven and unequally distributed.

The lens of "indigenous life projects," then, lays bare not only entanglements or mutualities but also the specific political valences of them being interwoven and interdependent in a moment of precarity. Which is to say that it not only enables the exploration of moralized theorizations of cyclones as the outcome of climates that are shifting through runaway urbanization and pollution but also enables the scrutiny of how such moral climates are weathered on starkly different terms and by way of using indigeneity as a resource. After all, indigenous boat owners may have difficulties with pushing through their project of rendering that global warming–enhanced storm season a "fish drought," yet by virtue of being "sons of the marine soil," their life projects no longer seem to be muddied by the existential risks of marine fishing; poor migrants laboring with their trawlers are burdened with those risks. For, as Salmi notes, after conveying some of their intimate knowledge of marine environments and fishing practices to their crews, Koli fishermen rather prefer to stay back on the land. What appears as a minimization of risk and an attempt to unlock further economic horizons also shifts the way the sea features in life projects. The climate of Hindu nationalism, well established as it is on Mumbai's shores, only adds momentum to a reading of indigeneity through the lens of exclusive sons of the soil politics.

This story resonates with recent scholarship on the not-so-liberatory dimensions of indigenous cosmopolitics and their violent repercussions in India and beyond (Bhan and Govindrajan 2024). And this story echoes recent research on what the sea is and what it becomes as people engage it as an elemental force, divinity, and materiality mined by corporations and states (Harms 2024).

In demonstrating the moral quality of global warming and of a fish drought, Salmi also provides evidence that I take as demonstrating how the project of rendering the sea an affective home interwoven within a web of mutualities ultimately takes on a darker tone. Mutualities, then, appear neither as simply nourishing nor as disrupted. The mutualities that Koli people enact with their marine soils appear to turn gloomy and

the futures fraught. Tending to these troubling mutualities is one of the ways anthropology may stay relevant in this enduring moment of polycrisis.

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Fish Drought: Temporalities and the Limits of the Rights-Based Discursive Framework

Salmi's paper forms an exceedingly important contribution to the provincialization and pluralization of dominant discourses on climate change. The paper argues that cyclones hit fishers not by wreaking havoc on the land but because they are unable to harvest the sea—and thus they experience the situation as a "drought" in their livelihoods. This innovatively refocuses how climate change's effects are experienced and framed by indigenous Koli fishers in the hyperurban metropolis of Mumbai, which seems to have "forgotten" its watery history (Bhattacharya 2018). Salmi focuses on the intriguing claim of a prolonged, state-produced "fish drought" among the indigenous Kolis and traces the provenance of this concept to a much longer history of colonialism, racial capitalism, land making, and dispossession. Salmi makes a strong case for considering that the heightened vulnerability of Kolis to the effects of climate change, similar to other indigenous communities globally, must be seen as embedded in this longer temporality. I appreciate and support the broad direction and arguments of the paper and reflect here on three important issues it raises, namely, indigenous (postcyclone) politics, temporalities, and a rights-based discursive framework.

There are two aspects of this paper that I find particularly inspiring. First is its nuanced discussion of postcyclone politics as a lens to understand Kolis' dual life projects and how indigeneity is simultaneously mobilized to continue fishing and to move beyond it. Studies of indigenous communities, including Koli fisher communities, tend to analyze in binary terms, flattening differences and employing reductive notions of "community." The author eludes this trap, productively emphasizing that Koli fisheries turn on the everyday labor of a much larger community of migrants and farmers, thus setting the stage for thinking about farmer-fisher (dis)connections, which are repeatedly returned to. By deploying the framing device of "life projects," Salmi also reveals fisher agency, which is more than resistance and is imbued with the ambivalence that comes from simultaneously advancing futures both on the land and in the sea. Second, I wholeheartedly embrace Salmi's lyrical discussion of the cultivated coastal commons, using this situated notion to contribute to understanding both the ontological (relations between human and entities of land and sea) and pragmatic (how access to and distribution of resources should be guaranteed by the state in a situation where land-based processes have colonized the sea) dimensions of claim making.

While I found the author's discussion of the longer temporalities shaping Koli fishers' experience and framing of climate change enriching, it struck me as limited in two respects. First, it focused exclusively on the dominant English-language translation of the term fish drought, thereby missing something in the translation. In my own research, I have been following fish drought politics but thinking with the emic term that fishers and government officials commonly use, the Marathi equivalent of *matsya dushkal*. The term dushkal, which is loosely translated as "drought," points toward both its tremendous length and uncertain duration. The root *kal* emphasizes an era or long unit of time without a clear beginning or end. It is a culturally encoded term drawing from the ancient Hindu epic the *Ramayana* and signifying "bad times." It is this temporality and structure of feeling that fishers highlight, claiming that we are in the midst of an ongoing disaster of fish drought whose cascading and devastating effects ripple out unevenly and unpredictably over time and space. Staying with ideas of dushkal conjures up ideas of loss, suffering, and trauma that are sedimented within the ongoing present (Anand 2023) and the past that is not past (Sharpe 2016). Second, the author highlights the dual life projects that fishers sought to advance through a postcyclone politics, but I submit that the fabrication of each of these futures has its own temporalities that might be generatively analyzed. One gestures toward the temporalities inherent in the long dying of artisanal fishers and fishing, while the second engages with the beginnings that such endings might portend.

Salmi's argument focuses substantively on Koli claims for compensation within a rights-based discourse as displaced "farmers" of the reclaimed estuary and of cyclone risk as politically generated—following from which, Kolis have the right to be compensated. But such a rights framework has significant limits, especially when the boundaries of what constitutes rights and reasonable compensation have been so narrowly and exclusively drawn. Fishers inhabit a fractured field that Salmi has clearly illuminated, and many are well aware of the limits of compensation and applying a liberal rights framework in a context where all are not equal citizens. My own ethnographic work with fishers in Mumbai shows how fishers switch across multiple registers of claim making—the rights of the artisanal fisher invoking caste and indigeneity, the tax-paying citizen, and a more planetary understanding of environmental stewardship not vested solely within nation-states. In this I follow Subramanian (2009), who pushes for historicizing rights and treating them as a structure of feeling—a dynamic cultural formation that encodes understandings of justice and accountability that are not simply of Western origin. I missed this dimension of considering the structures of feeling that constitute a political culture of rights in Salmi's work, one that is significant for postcolonial societies not just in India but elsewhere.

One thing that struck me in this paper is the absence of a role for women fishers in both the experience and the framing of

climate change as fish drought. Much has been written on the gendered division of labor within the fishing industry, one that carries over into political claim making. Does fish drought effectively capture women fishers' losses, harms, and claim making, I wonder? Including this lens would lend another dimension to an already rich study. But having made these critical comments, I will end by saying that the paper represents a compelling and timely addition to pluralizing climate change discourse from the margins. It is sure to inspire more such nuanced research in this vitally important field.

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Cultivating a Sea of Enclosure

Small-scale fisheries are threatened around the world, squeezed by industrial overfishing, marine pollution, unpredictable weather, global markets, and coastal real estate developments. Jelena Salmi has contributed a fine ethnography of how Koli fisherfolk in Mumbai understand and tackle these challenges. She emphasizes their strategic use of vocabulary derived from farming in their claims for compensation for climate-induced losses on par with government schemes protecting farmers. Koli fishery advocates speak of "fish drought" to describe their losses during a cyclone, frame their fishing as "farming on the water," or say that "the sea is our field." As a researcher of life in wet landscapes, working mostly with people who also use agricultural terminology to describe their nonagricultural practices, I would like to comment on this article from two perspectives: on the one hand, taking up Salmi's argument that Koli fishing has been an "amphibious" livelihood that is increasingly displaced by a hardening division between land and water and, on the other hand, wondering how the adoption of farming metaphors might be implicated in this displacement.

Salmi notes that the material transformations of Mumbai's shores and seas are jeopardizing Koli fishing livelihoods—for example, by displacing inshore fishing to the open sea, where fishing is much more vulnerable to extreme weather than close to shore. Salmi sees this as a process whereby formerly "amphibious" practices are disappearing, as Koli lives are increasingly split between a "Mumbai of the sea and Mumbai of concrete," following Pooja Das Sarkar, Lalitha Kamath, and Gopal Dubey (2021). At the same time, the ethnography indicates that despite concerted development efforts to divide up land and sea, the city of Mumbai continues to be amphibious. Not only do cyclones and monsoons keep blurring the boundaries between land and water (Mathur and da Cunha 2009), but also climate change, infrastructure failures, and the expanding construction related to the city's ports and hydrocarbon industries continue to proliferate in amphibious spaces.

Nikhil Anand and Lalitha Kamath (2024) have recently argued that what changes most drastically in this process is the use of space, from commons to enclosures, both at sea and along the coasts. As infrastructures are being extended into the sea through port development, hydrocarbon extraction, and shipping logistics, the exclusionary logics that come with land-based private property affect the urban sea in legal and practical ways, crowding out the commons in favor of exclusive zones. Not all Kolis are opposed to this transition, as Salmi documents, and some have started to tune in to the opportunities that a designation of "real estate" offers to the coastal strips traditionally used for landing, processing, and drying fish. While this can be read as a radical shift from fisherfolk to landlords, it might also be understood as a strategic move of a group of people for whom the distinction between land and water has never been particularly fundamental. In fact, Kolis throughout the state of Maharashtra and beyond work in farming, and reducing Koli people to fishers can be a move toward "primitivizing the coast" (Chhabria 2018, cited in Anand and Kamath 2024:130) and dispossessing the original inhabitants.

The Koli activists Salmi worked with have been struggling to restore some of their political, legal, and economic standing, at times rather successfully, as Anand and Kamath (2024) indicate. Claiming rights to compensation on terms similar to farming regulations, Koli campaigners insinuate that they are even better farmers than actual farmers, presenting themselves as more independent, more resilient, and less prone to committing suicide in the face of adversity. Thinking about, speaking of, and practicing fishing as a form of farming, however, may have consequences beyond the important goal of livelihood security. A look into another ethnographic context may help to illustrate this. In my research with Dinjii Zhuh and Inuvialuit in the western Canadian Arctic, I have become used to hunters, trappers, and sometimes berry pickers referring to their work as "harvesting" and them being referred to as "harvesters." This is echoed in the academic literature (e.g., Parlee and Caine 2018) and in a long string of "harvest studies" and other artifacts of resource comanagement that have evolved in the process of successful land claim negotiations and administration.

On the basis of his research with the Kluane First Nation in the Yukon, Paul Nadasdy (2011) has argued that this terminology is misleading despite its popularity. Framing hunting as harvesting indicates that it is generally comparable to farming, an understanding that has a long history in settler wildlife management discourse, including Aldo Leopold's famous land ethic. Agricultural production, however, implies ownership and control, both of which are incompatible with Indigenous hunting practice and knowledge in the Canadian North. Hunted animals are not owned by hunters but are understood to give themselves up to hunters who display appropriate behavior. Hunters also cannot control or manage animals in any sense comparable to the way farmers manage their crops; instead, animals manage themselves and remain in control of

their own lives. Animals may even be offended by hunters assuming ownership and control over them and withdraw.

Nadasdy has illustrated that wildlife comanagement is possible in many ways despite these fundamental differences, which surface only in particular situations in which Indigenous concerns tend to be sidelined by state experts. However, Nadasdy (2017) has also shown that in the context of wildlife management and self-government, settler framings have crept into Indigenous social relations, as the Yukon First Nations have adopted ideas and practices of territory, membership, and other elements of nineteenth-century European nation building. While there are obvious advantages in confronting settler governments through the terminology that they know, the logic of nation-states may transform key aspects of sociality, economy, law, and politics among Indigenous groups, especially through the clearly demarcated boundaries around groups and areas that this logic implies. Bringing this home to Salmi's account of Koli fishing activism in Mumbai suggests that using agrarian terminology to claim rights can be understood as an effective strategy in the context of a dwindling livelihood but might itself contribute to cultivating a sea of enclosure.

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Contextualizing Claim Making: Why Fishers Demand Rights as Farmers of the Sea

Salmi's paper contributes to a growing understanding of social transformations in the fisheries of India and the attendant forms of claim making that they have given rise to in different regions. Salmi's paper situates claim making as derived from the context of Koli life as "amphibious fishers," with dynamics of both the land and the sea shaping their everyday practices. Relatedly, Koli's social relations are built across subcastes and occupational categories of agrarian and fisher caste communities. This is the backdrop against which Salmi frames the logic of Kolis drawing a comparison between themselves and farmers in the rights-based discourse they deploy—an equivalence that defines them as "farmers of the sea."

While Koli life has indeed been defined through both land and sea, the demand for equivalence with farmers has specific resonance in the Indian context, which has a history of symbolism associated with the figure of the farmer and, relatedly, agriculture. To draw on this long-standing symbolic value and related institutional frameworks, fishers make a comparison to farmers in demanding rights from and making claims of the state.

In India, the figure of the farmer—and, relatedly, agriculture and the village community—has played an evocative role in politics, both in the anticolonial movement and in the postindependence period in India, and it has received substantial attention across the social sciences of these periods. This symbolism found its crystallization in 1965, when Prime Minister Lal Bahadur Shastri coined the phrase "*Jai jawan! Jai kisan!*" ("Hail the soldier! Hail the farmer!"), positioning the soldier and farmer as pillars of the nation-building project. At the time, Indian state policy was focused on achieving self-sufficiency in food production. Aside from the symbolism, therefore, there was substantive effort by the state to expand food production through injections of financial support and through the introduction of scientific interventions in the Green Revolution (1960s) and White Revolution (1970s). Rural rich farmers were also a dominant class in India who contended for power and vied for state support for agriculture in the form of subsidies and grants (Bardhan 1984). The significance attached to agriculture can also be inferred (and is often pointed out by the Koli fishers) from the fact that a separate Ministry of Agriculture was created at the time of independence in 1947 (with the fisheries listed as a function of this ministry), but it was only in 2019 that a Ministry of Fisheries was created and received similar institutional status. Given that the largest proportion of the working population in India is engaged in agriculture, which has always been so from the time of independence (and even prior), there is an economic and social significance attached to agriculture and consequently to the figure of the farmer. Cultural representations of farmers and agriculture had also been prominent in films before the 1990s, with the agriculturist standing in, as Deepankar Gupta (2005:17) suggests, as "the salt of the earth," while "mother India yields food in the villages for her millions."[4]

It is in this context that fishers demand to be considered similar to farmers. In a country where agriculture and farmers have long dominated the national imagination, the comparison to agriculture is made necessary when they seek recognition and visibility as fishers. This is especially the case when it comes to framing political demands. Prior commitment to agriculture by the state has resulted in an existing policy landscape within which claims can be placed by farmers for crisis-based compensation for loss of crops due to droughts, floods, and the more recent crisis of suicides. In contrast, it has taken much longer for fisher movements to achieve similar recognition, despite sustained collective action. Even so, as Salmi argues, state policy continues to operate with narrow definitions of what (assets: boats, nets, fish caught) and therefore who (boat owners, owner cooperatives) can be compensated. Salmi powerfully demonstrates that in a period of ecological crisis, the inability to account for a loss of work from cyclonic risks renders fishers more vulnerable. Since crises, ecological and otherwise, have long plagued agriculture and led to an institutional framework to recognize them, the Kolis are motivated to use registers similar to those of the farmer movements—minimum

4. After the liberalization of the economy and with the deteriorating conditions of agriculture, such cultural representations have declined in mainstream Hindi-language cinema.

support prices, loan waivers, and so on—to define their own claims.

Yet it would not be wrong to say that the symbolic status of farmers in India no longer remains the same as what it was before the liberalization of the economy in the 1990s. In this changed political economy, the state no longer feels the need to cater to a lobby of rich farmers—seen, for instance, in how the government declared new farm laws without consulting with farmer movements and groups in 2021. The laws were met with strident opposition and led to a prolonged standoff between farmer organizations and the state in which the earlier symbol of the farmer as nation builder was attacked by now terming them as "antinational." This raises a question about why Kolis would continue to draw on the farmer and agriculture trope when it places them at risk of being perceived in the same way that farmers are by the same government. The answer to that lies in what the farmers' movement has been able to achieve historically: concrete policies and institutional frameworks being created for them. Finally, the sheer number of people who are dependent on agriculture in India suggests that the figure of the farmer and the domain of agriculture will inform the political articulation of rights and claims among those engaged in other resource-dependent livelihoods.

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Jelena Salmi's analysis of how Koli fishers navigate the hazards of tropical cyclones—intensified in scale by global climate change—and the terrestrial expansion of the city of Mumbai toward their coastal villages provides a theoretically interesting and ethnographically rich examination of indigenous life projects. Based on eight months of ethnographic fieldwork in a peri-urban area in northern Mumbai in 2019–2020, the analysis portrays Koli struggles as dynamic requests for institutional recognition of their resource rights and fair compensation for livelihoods disrupted by environmental hazards. Observing that categorical distinctions between land and sea are too simple to illustrate people's amphibious lives in fluctuating riverine and coastal areas, floodplains, and wetlands, the study simultaneously demonstrates that many climate change effects are produced and reinforced by (post)colonial projects of terraforming, infrastructural engineering, state intervention, and capitalist profit making (Anand and Kamath 2024; da Cunha 2018; Krause 2021; Nygren and Lounela 2023; Scaramelli 2021).

Salmi's analysis of ontological Koli understandings of human-sea interactions—wherein the sea is not an external material domain or the mere context for fishers' activities but a collectively managed social domain—profoundly illuminates sea fishers' livelihoods and lifeworlds. Drawing inspiration from science and technology studies (STS)–oriented approaches, Salmi develops a practical ontological lens to explore Kolis' living conditions, social agendas, and fragmentary practices as part of the politics of worlds in the making, without presenting their political strategies as direct reflections of their communal practices and ontological conceptualizations. Instead, she challenges the tendency of the recent ontological turn in anthropology and other social sciences to confine heterogeneous actors to separate, incommensurable lifeworlds and to view different ontologies as preexisting entities. Indeed, Salmi's methods of exploring Koli understandings of fishing in relation to colonial and postcolonial fishing policies are highly relevant for avoiding assumptions of incommensurable worlds. This is a subject that warrants further analysis in amphibious anthropology, especially with regard to questions of responsibility amid massive development interventions and environmental transformations.

Salmi's analysis contains brilliant observations of Koli interpretations of fluctuating seascapes and shifting political subjectivities. She demonstrates convincingly that Koli advocates reframe their claims using rights-based discourses, justice-oriented demands, and images of originality, rather than relying on conventional demands for "aid" and "relief," which would present them as passive victims dependent on governmental control and guidance (Quist and Nygren 2015). Equally interesting are Salmi's notions of how Koli fishers identify themselves as "cultivators of the sea" whose livelihoods are diminished because of a "fish drought"—analogical to an agricultural catastrophe—thereby justifying compensation similar to that provided by the Indian government to farmers trying to cope with climate change–related extreme weather conditions. By showing that Koli conceptualizations are not merely discursive political strategies but are also linked to their craft of fishing and their key contribution of dried fish for fish meal in poultry production and fertilizer in soybean fields, Salmi provides a highly convincing, empirically grounded analysis of the complexity of fisher livelihoods at the fringes of urban nodes of production and consumption.

Salmi's study clearly shows that deep-sea fishing is not merely about catching the "gifts given by nature"; it requires physical agility and mental stamina in volatile offshore conditions (Quist and Nygren 2019) and the sensitivity to register and react to subtle marine signals. Her discussion of the Koli art of crafting "sealike" traps that adjust to the color and rhythm of the sea to confuse the prey further demonstrates Salmi's brilliant technique of linking careful ethnographic inquiry with novel theorization. Her sophisticated analysis and moving photographs combine to demonstrate that fishers' livelihoods, lifeworlds, political subjectivities, and political tactics are tightly interlinked and constantly in the making.

The exploration of politics as a shifting arena of negotiation and contestation deserved more attention in Salmi's otherwise careful analysis. Rather than an examination of politics primarily as a Koli tactic to demand compensation from the government, it would have been interesting if the claim making had been connected more carefully to strategies by state authorities to suppress, delay, co-opt, and ignore such reclamations—common tactics in India and many other parts

of the world (Auyero 2012; Coates and Nygren 2020; de Vries 2016; Goh 2019; Gupta 2012). Moreover, the wider context of real estate development, coastal engineering, untreated sewage, and plastic pollution—in addition to climate change—could have been better linked to Koli struggles to cope and to get just compensation for politically produced hazards and livelihood dispossession.

I agree with Salmi that there has been strong interference by the Indian state in fishers' incorporation into capitalist development; however, instead of merely focusing on state fishery policies and the establishment of fishing cooperatives, the paper could have paid more attention to how Koli fishers try to reformulate their political strategies within Indian state capitalism, where legacies of control, clientelism, and rule and divide are mixed with neoliberal strategies of accumulation, profitability, and self-responsibilization (Sud 2017). Combining the STS-oriented lens with recent theorizations in political ecology could have strengthened the analysis of indigenous politics, enabling exploration of it as part of wider trajectories of dispossession wherein climate change is just one factor among a multitude of others. Although marginality does not eliminate social agency, small-scale fishers' vulnerability at the fringes of urban territorial expansion and the globalized political economy of fisheries affects the forms of agency available to them within multifaceted capital accumulations and political negotiations (Quist and Nygren 2019).

In contrast to perspectives that present local mobilizations as merely antagonistic to development interventions, Salmi provides a sophisticated analysis of how Koli agendas mix tactics of resistance with aspirations for recognition and involvement (Lund 2016). Salmi's insightful analysis of Kolis' life projects offers novel theorization grounded in thorough empirical research on indigenous conceptualizations of human-sea relations and amphibious lifeways and on small-scale fishers' political subjectivities and contestations in the face of climate change and urban territorial expansion. It provides a remarkable contribution to environmental anthropology, STS, political ecology, and other research fields interested in indigenous projects of world making and political contestation.

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Ontological Complexity and Change in Political Claim Making

Jelena Salmi wrote her article as part of a research project that I led (Sustainable Livelihoods and Politics at the Margins: Environmental Displacement in South Asia). By examining policies and practices across vulnerable communities in the Sundarbans region of Bangladesh and India, as well as among Koli migrant workers and fishing communities on Madh Island, Mumbai, it has highlighted the diversity of local responses to climate change. In addition to Jelena Salmi, the research team included Mohammad Jasim Uddin and Dayabati Roy. The project was motivated by our observations during previous fieldwork in India and Bangladesh of extreme weather events having emerged as significant agents that harm livelihoods and contribute to displacement. Yet anthropological research on these subjects seemed scarce when we were planning the project in 2017.

One of our starting points was to study local perceptions of climate change. However, understanding local people's perceptions of climate change proved not as straightforward as it initially seemed. Although we studied regions that are vulnerable to climate change impacts, people often did not perceive their fluctuating environment and climate through the notion of climate change. Even if they were aware of the impacts of climate change, they faced many other urgent challenges that constrained their ability to make a living. Like Salmi's article, most of the project's publications (Roy 2020; Salmi 2023; Tenhunen and Roy 2024; Tenhunen, Uddin, and Roy 2023; Uddin 2023) have sought to understand how climate change impacts interact and merge with local social and political processes—and how people can shape these impacts by choosing policies that mitigate the consequences instead of exacerbating them. The project has, therefore, contributed to the questioning of climate reductionism, an ideology that interprets problems through the singular lens of climate change (e.g., Dewan 2021; Hulme 2011, 2023; Paprocki 2021).

Salmi details how climate change impacts have emerged in tandem with local histories and politics. She also demonstrates that Kolis are strikingly aware of the historical and political forces behind the environmental degradation that hinders their traditional fishing practices. She shows how local understandings of the sea have emerged as central to Kolis' political agency and claim making. She thereby demonstrates that ontologies are not preexisting entities independent of people's intentions, arguing that Kolis' discourses and practices reflect both social agendas and lived ontologies. Drawing from her rich ethnographic fieldwork, she demonstrates Kolis' practices and materiality as fragmentary, analyzing the ambiguity of their agency through the notion of life projects, coined by Blaser, Feit, and McRae (2004).

I appreciate Salmi's methodological aim to abandon essentializing conceptions of indigenous people's environmental preferences and be sensitive to the nuances of how they live and think in and with localities without being entrapped by them. While I find Salmi's analysis insightful, it also prompts further questions. The concept of a life project captures the ambiguity of Kolis' practices, but it offers a limited scope for analyzing change and transformation. Yet it is crucial to understand how human-environment relationships can change amid climate change impacts and local political processes. Moreover, as defined by Gad, Jensen, and Winthereik (2015), the hallmark of practical ontologies that emerge from action and practice is transformation. Hence, I would have been interested in reading

more about how Salmi's analysis of Kolis' political agency could help develop the concept of practical ontology. Do specific ontologies exist only in tandem with certain material practices? For instance, as Kolis transition from fishing to small-scale real estate business, do they fundamentally alter their ontological understandings of nature and the sea, or do they articulate different ontologies in different contexts? If ontologies emerge from practical contexts, do they emerge as incommensurable, or do they remain consistent with Kolis' understandings of the sea?

Salmi gives a vivid ethnographic description of the temporalities of fishing practices, arguing for attention to how climate change effects are experienced and theorized within temporal trajectories that are meaningful for those affected and how they are harnessed in the service of wider social agendas. Hence, her observations could also enable more detailed conclusions on the relationships of temporal trajectories, political agency, and ontologies. What opportunities or constraints for political claim making arise from possible temporal mismatches among governance, market, and fishing practices?

Although Salmi collected rich ethnographic data through long-term ethnographic fieldwork, answering some of my questions would require multitemporal fieldwork. My comments, therefore, also serve as an opening for future research among Kolis or other communities vulnerable to climate change and environmental degradation.

Reply

Mangroves, inhabiting amphibious intertidal coastlines, are masters of resourcefulness, adaptive capacity, and creative survival. They possess unique adaptations that enable them to filter out excess salt from seawater as well as absorb oxygen through aerial roots. Their stilt and prop roots, extending outward and downward from the trunk, hold them upright in shifting tides and unstable soils where land and water coalesce. These dense tangles of prop roots also reduce the speed of water flow and trap, produce, and stabilize mineral sediments and organic matter. Mangroves embody the concept of bricolage as they build up stable soils using materials at their disposal and thus help protect the shoreline from erosion. Indeed, mangroves do not just inhabit and survive in the world but engage in securing their own existence by cocreating the world around them.

Mangroves and many other plants inspire thinking about how "horizontal flows as well as vertical 'roots' tie individual nodes or whole networks to resources in territories of activity, extraction, residence, identity, and influence" (Rocheleau 2016 [2011]:220). As a community, Kolis are internally connected across space through shared struggles, kinship relations, and mutual exchanges, but they are also firmly of specific places through their histories, cultural identities, and ways of inhabiting environments through successive generations. At the same time, Kolis strategically "trap" and draw on discourses, practices, and networks beyond their immediate surroundings. Their horizontal and vertical ties influence the kinds of political claims they are able to make. Indeed, the capacity to imagine, build, and claim futures is not abstract or limitless—it is enabled by "environmental contexts structured by the presence and activities of predecessors" and takes shape "through a mixture of imitation and improvisation" (Ingold and Kurttila 2001:193).

While horizontal negotiation is premised on the history and experience of rootedness in place, remaining in place now and into the future in an urban megacity necessitates continuous extending outward. I use this idea as a point of departure for further elaborating Kolis' practical ontology in conversation with this set of generous and generative commentaries. I have structured my response under four headings: change and continuity, ontological dance, agrarian terminology, and gendered structures of feeling.

Change and Continuity

Tenhunen asks what happens when practices change: Does a shift in practice, like the Kolis moving from fishing to small-scale real estate, lead to a transformation in ontology, or can people "articulate different ontologies in different contexts"? Kolis' practical ontology—which I have approached through Blaser's (2004) notion of "life project"—lives and develops in relation to the natural-cultural history of an amphibious area now known as Mumbai: colonial land reclamation and dispossession, the pressures of neoliberal development, and, most recently, climate change hazards, including cyclones. Their life project is a process of practical engagement with the fluctuating amphibious environment, a skill of "literally negotiating a path through the world" (Ingold and Kurttila 2001:192). As such, it can be thought of as a dynamic bricolage strategy of assembling and tapping into various available materials, technologies, discursive tropes, and practices—as well as environmental harms—in an effort to negotiate access to land and sea amid mounting pressures.

In Kolis' lives, many worlds are entangled and toggled between. During my fieldwork, Kolis continued to relate to the sea spiritually while simultaneously engaging in capitalist real estate practices and paid labor, including migrant work in cruise ships and in extractive zones like oil fields—something that I did not address in the article. Thus, Kolis also align with developmentalist and neoliberal logics as rational economic actors that engage with the sea and land as "enclosures" (Anand and Kamath 2024; Krause). Sometimes these "new" practices abroad were used to support and reshape "old" ones at home. For instance, one of my interlocutors had worked in oil drilling in the Persian Gulf, investing his savings in a new, bigger *dol* net fishing boat that could fish in the "deep sea." Another interlocutor worked onboard a cruise ship in the Gulf of Mexico in an effort to save money for building a new house and buying a dol net boat in his native village. This unsettles Kamath's division

between "the temporalities inherent in the long dying of artisanal fishers and fishing" and those engaged "with the beginnings that such endings might portend," showing how new beginnings may be used to tinker with and reinvigorate what went on before. What, then, is "old," and what is "new"? Indeed, I find it productive to look at how ontologies are related, layered, negotiated, and compartmentalized—at some points, different kinds of enactments can even come to depend on one another (Mol 1999). This highlights how continuity and change are not opposed (Ingold and Kurttila 2001) but relational: while political strategies, language, and livelihood practices may shift, the underlying sense of belonging to a place remains continuous. That is, change is embedded within and emerges through practices of continuity.

An interesting avenue for further research would be to explore Kolis' engagement in overseas labor in relation to the possible spatial compartmentalization of ontologies. Are there differences in how Kolis relate to the sea abroad and at home? Is the sea at home more multiple than the seas abroad?

Ontological Dance

Nygren's suggestion to go beyond the analysis of fishery policies and cooperatives by examining how Koli fishers reformulate political strategies "within Indian state capitalism" is an important one. As Anand and Kamath (2024:131) have argued, Kolis work "with and against state and capital," operating within as well as manipulating and resisting the political economy of the state to maintain their livelihood. Participation in real estate—which in some cases includes informal negotiation and maneuvering of Coastal Regulation Zone regulations—is one example. Furthermore, as other scholars have shown, when opposing contemporary infrastructure projects, Kolis enact themselves as urban indigenous communities (Movik, Adam, and Alankar 2023) and, more recently, as tax-paying postcolonial citizens demanding rights to livelihood as guaranteed by the constitution (Anand and Kamath 2024; Kamath). Thus, it can be said that Kolis' formulation of political strategies, including "switch[ing] across multiple registers of claim making" (Kamath), takes the form of an "ontological dance" (Swanson 2019:417). Instead of seeing Kolis as caught between resistance and compliance, this ontological dance reveals them as agents of multiple, interlaced realities, creatively recrafting and reassembling their social worlds in response to shifting, ambivalent pressures, including state capitalism, which is also seen as presenting opportunities. That being said, I agree with Nygren that further work would benefit from a deeper engagement with political ecology to capture the interconnectedness of state capitalism and social agency.

Agrarian Terminology

Nair gives a compelling account of how it makes sense for Kolis and other marginalized groups engaged in resource-dependent livelihoods to continue to draw on the agriculture trope because of historical achievements of the farmers' movement—"concrete policies and institutional frameworks being created for them"—even if the symbolic status of farmers in India is dwindling. Nair's insightful commentary contextualizes Kolis' claim making beyond material connections between fishing and fishers and farming and farmers, underlining the strategic, horizontal trapping of the agricultural trope.

Krause, for his part, asks whether using agrarian terminology "might itself contribute to cultivating a sea of enclosure." In a similar vein, Harms points out how "the mutualities that Koli people enact with their marine soils appear to turn gloomy and the futures fraught." I agree that the language of landrights often comes with a territorial logic: the use of agrarian terminology might unintentionally align with governance frameworks that privilege fixity, boundary making, and even commodification. In fact, Kolis are intentionally calling for specified fishing zones and stricter state regulation, even if this is framed as a protective measure. The sea, once treated as a common resource able to provide sustenance for everyone, has become a site of intense competition between so-called traditional (*pāramparik*) and commercial fishers. Kolis with a sufficient capital base have abandoned their traditional practices in favor of new fishing techniques and technologies, while others continue to rely on their centuries-old traditional methods, including dol netting. Both groups transport most of their daily catch to be sold in Mumbai's various fish markets to consumers, intermediaries, restaurants, and exporters. Thus, *pāramparik* and commercial characterize class identities, as only those with a sufficient capital base have been able to adopt active fishing methods and become commercial. The drift between these groups comes to the fore in contestations over how the regional state should regulate fishing by amending the Maharashtra Marine Fishing Regulation Act, 1981, which governs fishing in the state. While purse seiners are calling for regulations on the mesh size of dol nets, dol netters want significant limitations on when and where purse seines can be operated. That is, Kolis themselves are engaged in transforming relational marine commons into a segmented, governable territory, thus potentially opening the door to more centralized control. This reveals a tension: to survive, the Kolis must speak the language of zoning, even if that language carries with it the risk of future enclosure. It also shows how relationships within the Koli community "appear neither as simply nourishing nor as disrupted" (Harms). As one of my Koli interlocutors put it, "It is our weak point that our people are divided."

Gendered Structures of Feeling

Kamath stresses the importance of "historicizing rights and treating them as a structure of feeling" as well as discussing whether "fish drought" effectively captures women's losses, harms, and claim making. I very much appreciate pointing toward these generative lines of inquiry. Indeed, the unfolding history of Mumbai is accompanied by undercurrents of tension between belonging and exclusion, endurance and estrangement,

aspiration and precarity. This tension is expressed not only through fully articulated rights claims but also, for instance, through the affective weight of sorting and drying fish and performing rituals amid plastic debris. Women, who dominated the labor of sorting, drying, and selling, were in daily bodily contact with the catch. This put them at greater risk from plastic and chemical pollution, jellyfish, and other toxic substances that ended up in the fishing nets (cf. Venkataramani 2021*b*), producing a profound, sensory experience of injustice and estrangement. Indeed, my fellow female sorters pointed to the absurdity of Kolis, "the original inhabitants of the city," being reduced to sorters of "newcomers' waste." Sometimes, they compared the present with the past, when "the nets were filled with clean prawns and nothing else." Thus, while male boat owners experienced fish drought in the form of continually diminishing livelihoods, women also knew it intimately in their bodies through daily skin-to-skin contact with increasing plastic debris and jellyfish goo. This underlines the need to understand the gendered dimensions of how rights are felt before they can be fully articulated.

Kamath also observed limitations in my exclusive focus on "the dominant English-language translation of the term fish drought" in discussing the longer temporalities shaping Kolis' experiences and framings of climate change. Kamath explains how the Marathi equivalent of fish drought, *matsya dushkal*, "points toward both its tremendous length and uncertain duration." I am grateful for this poignant observation concerning the "problem of translation" (West 2005) and recognize how the English translation of the emic term may obscure and distort the culturally specific ways in which fishers experience, interpret, and narrate environmental change—in this case, the deeply felt experience of unpredictability. My interlocutors, however, also used the English term "drought" to describe their experiences, which echoes agrarian metaphors of scarcity ("crop failure"), but in my analysis, I did not pay attention to whether there were gendered differences in the practice of contextually alternating between languages. Therefore, I embrace this comment as an important reminder of the importance of an ethnographic analysis sensitive to how differently positioned people are navigating power, audience, and the politics of recognition through code-switching—itself a creative and subtle form of ontological dance. Careful attention to language and phrasing can also help capture "structures of feeling that constitute a political culture of rights" (Kamath) in postcolonial contexts, in India and beyond.

—Jelena Johanna Salmi

References Cited

Adam, Hans, Synne Movik, D. Parthasarathy, Alankar, N. C. Narayanan, and Lyla Mehta. 2021. Climate change and uncertainty in India's maximum city, Mumbai. In *The politics of climate change and uncertainty in India*. Lyla Mehta, Hans Nicolai Adam, and Shilpi Srivastava, eds. Pp. 134–160. London: Routledge.

Anand, Nikhil. 2022. Toxicity 1: on ambiguity and sewage in Mumbai's urban sea. *International Journal of Urban and Regional Research* 46(4):687–697.

———. 2023. Anthroposea: planning future ecologies in Mumbai's wetscapes. *EPD: Society and Space* 41(4):683–706. [LK]

Anand, Nikhil, and Lalitha Kamath. 2024. Eviscerating the sea. *Comparative Studies of South Asia, Africa and the Middle East* 44(1):118–134. https://doi.org/10.1215/1089201X-11141543.

Ashar, Hemal. 2021. Kolis and East Indians come together under AKEI umbrella to push for community related issues. https://www.mid-day.com/mumbai/mumbai-news/article/kolis-and-east-indians-come-together-under-akei-umbrella-to-push-for-community-related-issues-23190214 (accessed September 8, 2023).

Auyero, Javier. 2012. *Patients of the state: the politics of waiting in Argentina*. Durham, NC: Duke University Press. [AN]

Bardhan, Pranab. 1984. *The political economy of development in India*. Oxford: Blackwell. [GN]

Bhan, Mona, and Radhika Govindrajan. 2024. More-than-human supremacy: Himalayan lessons on cosmopolitics. *American Anthropologist* 126(2):182–193. [AH]

Bhattacharya, Debjani. 2018. *Empire and ecology in the Bengal Delta: the making of Calcutta*. Cambridge University Press: London. [LK]

Blaser, Mario. 2004. Life projects: indigenous peoples' agency and development. In *In the way of development: indigenous peoples, life projects and globalization*. Mario Blaser, Harvey A. Feit, and Glenn McRae, eds. Pp. 52–71. London: Zed.

Blaser, Mario, Harvey A. Feit, and Glenn McRae, eds. 2004. *In the way of development: indigenous peoples, life projects and globalization*. London: Zed.

Callison, Candis. 2020. The twelve-year warning. *Isis* 111(1):129–137. https://doi.org/10.1086/707823.

Chakraborty, Ritodhi, and Pasang Yangjee Sherpa. 2021. From climate adaptation to climate justice: critical reflections on the IPCC and Himalayan climate knowledges. *Climatic Change* 167(3/4):49.

Chhabria, Sheetal. 2018. The Aboriginal alibi: governing dispossession in colonial Bombay. *Comparative Studies in Society and History* 60(4):1096–1126. [FK]

Chhotray, Vasudha. 2014. Disaster relief and the Indian state: lessons for just citizenship. *Geoforum* 54:217–225.

Coates, Robert, and Anja Nygren. 2020. Urban floods, clientelism, and the political ecology of the state in Latin America. *Annals of the American Association of Geographers* 110(5):1301–1317. https://doi.org/10.1080/24694452.2019.1701977. [AN]

Corsín Jiménez, Alberto, and Chloe Nahum-Claudel. 2019. The anthropology of traps: concrete technologies and theoretical interfaces. *Journal of Material Culture* 24(4):383–400.

da Cunha, Dilip. 2018. *The invention of rivers*. Philadelphia: University of Pennsylvania Press. [AN]

Das Sarkar, Pooja, Lalitha Kamath, and Gopal Dubey. 2021. *Sagar Putra*: offspring of the sea. https://www.inhabitedsea.org/the-sea-and-the-city.

Davis, Heather, and Zoe Todd. 2017. On the importance of a date, or decolonizing the Anthropocene. *ACME* 16(4):761–780.

Davis, Janae, Alex A. Moulton, Levi Van Sant, and Brian Williams. 2019. Anthropocene, Capitalocene, . . . Plantationocene? a manifesto for ecological justice in an age of global crises. *Geography Compass* 13(5):e12438.

Deshmukh, V. D. 2013. Responsible marine fisheries: reflections from Maharashtra. In *Winter school on ICT-oriented strategic extension for responsible fisheries management*. Pp. 113–118. Kerala, India: Central Marine Fisheries Research Institute. https://core.ac.uk/download/pdf/33019953.pdf.

Deshpande, Medha, Vineet Kumar Singh, Mano Kranthi Ganadhi, M. K. Roxy, R. Emmanuel, and Umesh Kumar. 2021. Changing status of tropical cyclones over the North Indian Ocean. *Climate Dynamics* 57(11):3545–3567.

de Vries, Pieter. 2016. The inconsistent city, participatory planning, and the part of no part in Recife, Brazil. *Antipode* 48(3):790–808. hhttps://onlinelibrary.wiley.com/doi/full/10.1111/anti.12223. [AN]

Dewan, Camelia. 2021. *Misreading the Bengal Delta: climate change, development, and livelihoods in coastal Bangladesh*. Seattle: University of Washington Press. [ST]

Evan, Amato T., James P. Kossin, Chul "Eddy" Chung, and V. Ramanathan. 2011. Arabian Sea tropical cyclones intensified by emissions of black carbon and other aerosols. *Nature* 479:94–97.

Gad, Christopher, Casper Bruun Jensen, and Brit Ross Winthereik. 2015. Worlds in STS and anthropology. *NatureCulture* 3:67–86. http://natureculture.sakura.ne.jp/wp/wp-content/uploads/2015/09/PDF-natureculture-03-04-practical-ontology.pdf.

Gaon Connection. 2021. Maharashtra: industry minister assures rehabilitation of fishers who suffered losses due to Cyclone Tauktae. Lucknow, India: Gaon Connection.

Gell, Alfred. 1996. Vogel's net: traps as artworks and artworks as traps. *Journal of Material Culture* 1(1):15–38.
Ghosh, Amitav. 2016. *The great derangement: climate change and the unthinkable*. Chicago: University of Chicago Press.
Goh, Kian. 2019. Urban waterscapes: the hydro-politics of flooding in a sinking city. *International Journal of Urban and Regional Research* 43(2):250–272. [AN]
Gudeman, Stephen F. 2001. *The anthropology of economy: community, market, and culture*. Malden, MA: Blackwell.
Gupta, Akhil. 2012. *Red tape: bureaucracy, structural violence, and poverty in India*. Durham, NC: Duke University Press. [AN]
Gupta, Dipankar. 2005. Whither the Indian village? culture and agriculture in "rural" India. *Review of Development and Change* 10(1):1–20. https://doi.org/10.1177/0972266120050101. [GN]
Harms, Arne. 2024. *Enduring erosions: environmental displacement and relocation on India's sinking coasts*. Honolulu: University of Hawai'i Press. [AH]
Hegde, Sandeep. 2015. Son Kolis: the Aboriginal inhabitants of Bombay (now Mumbai) in transition. *International Letters of Social and Humanistic Sciences* 62:140–146.
Helmreich, Stefan. 2011. Nature/culture/seawater. *American Anthropologist* 113(1):132–144.
Hulme, Mike. 2011. Reducing the future to climate: a story of climate determinism and reductionism. *Osiris* 26(1):245–266. [ST]
———. 2023. *Climate change isn't everything: liberating climate politics from alarmism*. Cambridge: Polity. [ST]
Ingold, Tim. 2000. *The perception of the environment*. London: Routledge.
———. 2018. One world anthropology. *HAU* 8(1/2):158–171.
Ingold, Tim, and Terhi Kurttila. 2001. Perceiving the environment in Finnish Lapland. In *Bodies of nature*. Phil Macnaghten and John Urry, eds. Pp. 183–196. London: Sage.
Jensen, Casper Bruun. 2017. Amphibious worlds: environments, infrastructures, ontologies. *Engaging Science, Technology, and Society* 3:224–234.
———. 2021. Practical ontologies redux. *Berliner Blätter* 84:93–104.
Johari, Aarefa. 2021. Mumbai's Koli fishermen face a perfect storm: climate change, cyclones, and illegal fishing. https://scroll.in/article/997397/mumbais-koli-fishermen-face-a-perfect-storm-climate-change-cyclones-and-illegal-fishing (accessed January 25, 2023).
Kalyanikar, Eshan. 2022. Drowning in debt: Mumbai's fisherfolk struggle to survive extreme weather and dwindling catch. https://mumbai.citizenmatters.in/extreme-weather-a-financial-hazard-for-mumbai-fisherfolk-34036 (accessed January 25, 2023)
Kamath, Lalitha, and Gopal Dubey. 2020. Commoning the established order of property: reclaiming fishing commons in Mumbai. *Urbanisation* 5(2):85–101.
Krause, Franz. 2017. Towards an amphibious anthropology of delta life. *Human Ecology* 45(3):403–408.
———. 2021. The tempo of solid fluids: on river ice, permafrost, and other melting matter in the Mackenzie delta. *Theory, Culture and Society* 39(2):31–52. [AN]
———. 2022. Inhabiting a transforming delta. *American Ethnologist* 49(1):7–19.
Lewis, Simon L., and Mark A. Maslin. 2015. Defining the Anthropocene. *Nature* 519(7542):171–180.
Lopes, Flavia. 2021. Exposed at sea, fishers need better insurance to manage climate risks. https://www.indiaspend.com/climate-change/exposed-at-sea-fishers-need-better-insurance-to-manage-climate-risks-781266 (accessed October 4, 2022).
Lund, Christian. 2016. Rule and rupture: state formation through the production of property and citizenship. *Development and Change* 47:1199–1228. [AN]
Mathur, Anuradha, and Dilip da Cunha. 2009. *Soak: Mumbai in an estuary*. New Delhi: Rupa & Co.
McGregor, Deborah. 2004. Traditional ecological knowledge and sustainable development: towards coexistence. In *In the way of development: indigenous peoples, life projects and globalization*. Mario Blaser, Harvey A. Feit, and Glenn McRae, eds. Pp. 72–91. London: Zed.
Mol, Annemarie. 1999. Ontological politics: a word and some questions. *Sociological Review* 47(suppl. 1):S74–S89. https://doi.org/10.1111/j.1467-954X.1999.tb03483.x.
Movik, Synne, Hans Nicolai Adam, and A. Alankar. 2023. Claiming space: contested coastal commons in Mumbai. *Geoforum* 144:103805. https://doi.org/10.1016/j.geoforum.2023.103805.
Nadasdy, Paul. 2011. "We don't harvest animals; we kill them": agricultural metaphors and the politics of wildlife management in the Yukon. In *Knowing nature: conversations at the intersection of political ecology and science studies*. Mara J. Goldman, Paul Nadasdy, and Matthew D. Turner, eds. Pp. 135–151. Chicago: University of Chicago Press. [FK]
———. 2017. *Sovereignty's entailments: First Nation state formation in the Yukon*. Toronto: University of Toronto Press. [FK]
———. 2021. How many worlds are there? *American Ethnologist* 48(4):357–369.
Nair, Gayatri. 2021. *Set adrift: capitalist transformations and community politics along Mumbai's shores*. New Delhi: Oxford University Press.
Nygren, Anja, and Anu Lounela. 2023. Remaking of wetlands and coping with vulnerabilities in Mexico and Indonesia. *Water Alternatives* 16(1):295–320. https://www.water-alternatives.org/index.php/alldoc/articles/vol16/v16issue1/690-a16-1-7/file. [AN]
Paprocki, Kasia. 2021. *Threatening dystopias: the global politics of climate change adaptation in Bangladesh*. Ithaca, NY: Cornell University Press. [ST]
Parlee, Brenda L., and Ken J. Caine, eds. 2018. *When the caribou do not come: indigenous knowledge and adaptive management in the Western Arctic*. Vancouver: University of British Columbia Press. [FK]
Parthasarathy, D. 2011. Hunters, gatherers and foragers in a metropolis: commonising the private and public in Mumbai. *Economic and Political Weekly* 46(50):54–63.
Pfeiffer, Lisa, and Trevor Gratz. 2016. The effect of rights-based fisheries management on risk taking and fishing safety. *Proceedings of the National Academy of Sciences* 113(10):2615–2620.
Puig de la Bellacasa, María. 2017. *Matters of care: speculative ethics in more than human worlds*. Minneapolis: University of Minnesota Press.
Quist, Liina-Maija, and Anja Nygren. 2015. Contested claims over space and identity between fishers and the oil industry in Mexico. *Geoforum* 63:44–54. https://doi.org/10.1016/j.geoforum.2015.05.015. [AN]
———. 2019. Debating the unknowns of marine oil exploration in Mexico. *Extractive Industries and Society* 6:855–862. https://doi.org/1016/j.exis.2019.06.005. [AN]
Riding, Tim. 2018. Making Bombay island: land reclamation and geographical conceptions of Bombay, 1661–1728. *Journal of Historical Geography* 59:27–39.
Rocheleau, Dianne. 2016 (2011). Rooted networks, webs of relation, and the power of situated science: bringing the models back down to earth in Zambrana. In *The Palgrave handbook of gender and development: critical engagements in feminist theory and practice*. Wendy Harcourt, ed. Pp. 213–231. London: Palgrave Macmillan.
Roy, Dayabati. 2020. "On the horns of a dilemma!" climate change, forest conservation and the marginal people in Indian Sundarbans. *Forum for Development Studies* 47(2):307–326. https://doi.org/10.1080/08039410.2020.1786452. [ST]
Salmi, Jelena. 2023. Intermittent mobility as a livelihood strategy for landless rural people in Andhra Pradesh. *Journal of Ethnic and Migration Studies* 51(3):855–862. https://doi.org/10.1080/1369183X.2023.2295236. [ST]
Scaramelli, Caterina. 2021. *How to make a wetland: water and moral ecology in Turkey*. Stanford, CA: Stanford University Press. [AN]
Senapati, Sibananda, and Vijaya Gupta. 2015. Climate change and fishing: analysing fishermen's viewpoint. *International Journal of Ecological Economics and Statistics* 36(4). http://ceser.in/ceserp/index.php/ijees/article/view/3965.
Sharpe, Christina. 2016. *In the wake: on Blackness and being*. Durham, NC: Duke University Press. [LK]
Smith, M. Estellie, ed. 1977. *Those who live from the sea: a study in maritime anthropology*. St. Paul, MN: West.
Srivastava, Shilpi, Shibaji Bose, D. Parthasarathy, and Lyla Mehta. 2022. Climate justice for whom? understanding the vernaculars of climate action and justice in marginal environments of India. *IDS Bulletin* 53(4). https://doi.org/10.19088/1968-2022.141.
Subramanian, Ajantha. 2009. *Shorelines: space and rights in South India*. Palo Alto, CA: Stanford University Press.
Sud, Nikita. 2017. State, scale and networks in the liberalization of India's land. *Politics and Space C* 35(1):76–93. [AN]
Swanson, Heather Anne. 2019. The entrapment of trap design: materiality, political economy and the shifting worlds of fixed gear fishing. *Journal of Material Culture* 24(4):401–420.
Tenhunen, Sirpa, and Dayabati Roy. 2024. Assembling multi-temporal resilience on the eastern coast of India. *Ethnos* 1–14. https://doi.org/10.1080/00141844.2024.2393574. [ST]

Tenhunen, Sirpa, Mohammed Jasim Uddin, and Dayabati Roy. 2023. After Cyclone Aila: politics of climate change in Sundarbans. *Contemporary South Asia* 31(2):222–235. https://doi.org/10.1080/09584935.2023.2203903. [ST]

Uddin, Mohammed Jasim. 2023. Climate change, vulnerabilities, and migration: insights from ecological migrants in Bangladesh. *Journal of Environment and Development* 33(1):50–74. https://doi.org/10.1177/10704965231211589. [ST]

Venkataramani, Chitra. 2021*a*. Drawing and fishing a salty shore. *Anthropology News*. https://www.anthropology-news.org/articles/drawing-and-fishing-a-salty-shore/.

———. 2021*b*. Waste's translations: estuaries, marine life, and the chemistry of Mumbai's dumping grounds. *American Ethnologist* 48(4):337–356.

Vigh, Henrik Erdman, and David Brehm Sausdal. 2014. From essence back to existence: anthropology beyond the ontological turn. *Anthropological Theory* 14(1):49–73.

von Uexküll, Jakob. 2010. *Foray into the worlds of animals and humans: with a theory of meaning*. Minneapolis: University of Minnesota Press.

West, Paige. 2005. Translation, value, and space: theorizing an ethnographic and engaged environmental anthropology. *American Anthropologist* 107(4):632–642.

Whyte, Kyle. 2018. Settler colonialism, ecology, and environmental injustice. *Environment and Society* 9(1):125–144.