Sustaining Seas

OCEANIC SPACE AND THE POLITICS OF CARE

Edited by Elspeth Probyn, Kate Johnston, and Nancy Lee

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Chapter Four

Caring for the Tuna of the Western Indian Ocean

Where Politics and Ecology Meet

Mialy Andriamahefazafy, Christian A. Kull, Pamima Leste, Patsy Theresine, and Safina Echa

EXPLORING THE POLITICS OF TUNA FISHERIES IN THE WESTERN INDIAN OCEAN

Tuna resources are the "blue gold" of the Western Indian Ocean (WIO). Although the WIO represents only around 5 percent of our oceans, it contributes between 12 and 20 percent of the global tuna catch (Obura et al. 2017, 4; Poseidon et al. 2014, 4). From the fishing activity itself to the sale of tuna locally or beyond national borders, the fishery puts in contact, congregates, and opposes actors such as small-scale and industrial fishers, intermediaries, processing companies and their workers, and governmental departments. It also involves actors farther away from the tuna itself such as distant-water fishing nations (DWFNs), which fish in coastal waters of the WIO through fishing companies based in Spain, France, Japan, or Korea. Other management stakeholders are also involved, including big nongovernmental organizations or the regional fisheries management organization for tuna, the Indian Ocean Tuna Commission (IOTC). Managing this shared resource often depends on the socioeconomic contexts in coastal countries as well as intricate sociopolitical interactions.

We use political ecology as a theoretical anchoring. Through this framework, we can present the role of broader political economic drivers in local uses of resources (see Blaikie 1989, 23; Peet, Robbins, and Watts 2011, 9–10), analyze the winners and losers (e.g., Ribot and Peluso 2003, 154; Robbins 2012, 87) and explore the role of biophysical characteristics of nonhumans in social practices of resource management (see Bakker and Bridge 2006, 18; Bennett 2010, 1–19; Robbins 2012, 23). Using the theory of access of Ribot and Peluso (2003) to look at the politics of access to the resources, we particularly focus here on the role of social relations, investigating the relations

between stakeholders as well as the geopolitics between the countries involved. For the former, we shed light on the social interactions in local resource access that only a few studies in tuna fishery have looked at (see, e.g., Campling 2012a; Probyn 2016, 77–100). In global fisheries, small-scale fisheries have long been underestimated in their importance (Pauly 2018, 372). For the latter, we explore the role of governments and extraregional institutions such as the European Union in shaping the fishery and its management. By exploring those, we highlight how different actors care about the resource and the people in contact with it. We associate the concept of care to both individual welfare and welfare of the community (D'Alisa, Deriu, and Demaria 2015, 63–66), a community that in our case includes the tuna resources. Establishing care for natural resources has been recognized as dependent on the level of engagement with the resources (Probyn 2014, 291–92). It was also studied as being able to influence livelihood outcomes (Ellis-Jones 1999, 182–86) and enhancing connections between the environment and its people (Suchet-Pearson et al. 2013, 196).

Our understanding of care goes beyond the interpretation of free or unpaid work and combines *taking care of* and *giving care*, two broader ideas that cover public engagement and private tasks (Lawson 2007, 6–7; Tronto 1993, 101–26). *Taking care* involves the assumption of responsibility to respond to a need and choosing to take action toward that need. *Giving care* implies a commitment and work to satisfy a need of care in a direct relationship (D'Alisa, Deriu, and Demaria 2015, 64). By *politics of care*, we then mean the various ways through which actors choose and support these expressions of care, and the consequences of such expressions or the lack of them.

As one of the tuna species—yellowfin tuna—is currently assessed as overfished in the entire Indian Ocean (Indian Ocean Tuna Commission [IOTC] 2018, 14), the WIO is facing an overfishing crisis. There is, therefore, a need for actions to sustain the tuna resources of the region. Caring for the tuna requires taking responsibility and actions toward the improvement of the state of tuna resources as well as sustaining the benefits that stakeholders gain from the resources. We show different politics of care through which actors in the various segments of the fishery take and give care to the currently depleted tuna resources and the people dependent on the fishery. Furthermore, as tuna fisheries are often considered as mainly driven by capitalist interests and accumulation, we show that in the WIO, there is a diversity of economies at different scales. This diversity brings an equally diverse politics of care among actors.

We focus on three case studies: Madagascar, Mauritius, and Seychelles. They hold a central place in the tuna exploitation of WIO—each having an active industrial fishing port, tuna canneries, and local fishers. Local fishing in the three island nations have two components: the small-scale segment

using small wooden *pirogues* or glass fiber boats with hooks or nets, and the semiindustrial segment, composed of larger boats measuring nine to twenty meters, with stronger engines and using longline as a fishing technique. Considering their distinctive socioeconomical contexts—Madagascar being much poorer than its two neighbors (United Nations Development Programme 2016)—tuna fisheries also play different role in the national economies. They are at the center of the economy of Seychelles whereas they contribute less in Madagascar, which is more focused on a cash-crop agriculture, and in Mauritius, a tertiary-based economy (Sellström 2015, 46–47). However, in all three countries, tuna is an important source of foreign revenue, job opportunities, and food security (Indian Ocean Commission [IOC] 2018; Obura et al. 2017, 15). This chapter is based on six months of fieldwork undertaken in 2017 and 2018 in the three islands. We interviewed stakeholders at landing ports and fishing villages as well as governmental offices. Interviews consisted in gathering actors' experience and perspectives on their means of access to tuna resources, the state of the resources, and their interactions with foreign fleets. We also observed landing of tuna in local and industrial ports as well as the twenty-second session of the IOTC that took place in May 2018.

In this chapter, we tell the stories of actors within the local fishery and the foreign industrial fisheries. These two levels of fishing are often seen as in conflict, with the industrial sector considered by local fishers as causing the depletion of tuna and other marine resources in the WIO. We proceed in the chapter with a reflection on the challenges the WIO faces in sustaining its tuna resources. We then conclude the chapter by pointing out the role of different actors in contributing to a politics of care that considers both the tuna resources and its people.

FROM SITUATED FISHING TO EXTENDED LIVELIHOODS

In the three countries studied, tuna fishing by local fishers is often considered negligible. This is mainly due to the low quantity of catch attributed to the small-scale fishery that is recorded in official reports (Government of Madagascar 2017; Government of Mauritius 2017; Government of Seychelles 2016). When interviewing government officials, common phrases in the three islands were "artisanal fishers do not really catch tuna here" (Anonymous, Fisheries department's representative in Madagascar, pers. comm.) or "it is a very small catch" (Anonymous, Fisheries department's representative in Mauritius, pers. comm.). Behind this limited catch, however, there is a broader story of connections among people within the local tuna fishery.

In the three island countries, tuna fishing is a highly social activity that allows members of the community to access the resources. Fishing trips are primarily undertaken in groups that include individuals from the same family or village who do not have a formal right to the fish themselves. In this instance, the participant receives a part of the catch that is divided between the crew members. This social relation is embedded within a reciprocity principle (Ribot and Peluso 2003, 172). Reciprocity here manifests itself by offering to help a relative, friend, or neighbor in the same fishing village. We also observed that access to labor opportunities is not formalized and rather horizontal. Trust and reputation building (as developed in Berry 1989, 46–49) are the access mechanisms to labor here. Tuna fishers, like in Mauritius, are well known in their village and often considered successful in their activity. Each fisher can also ask for work by approaching the boat owner, sometimes referred to as an equal comrade rather than as a boss. In Ramena village (Madagascar), a tuna fishing boat often has ten to fifteen fishers on board, mostly coming from the same village. Each fisher has a family of three to five people to take care of. As one interviewee declared, "In Ramena, fishing is a matter of survival. I accept anyone who is in need of work. There is always something to do in the fishing, whatever your skill" (Kongo, boat owner in Madagascar, pers. comm.). In the three islands, the social effects of tuna fishing on local livelihoods is largely untold.

The case of the semiindustrial sector in the Seychelles is worth mentioning here in terms of the labor opportunities it brings. In the past five years, the Government of Seychelles (2016) has strongly invested in developing its semiindustrial tuna fishery, catching around two hundred tons of tuna a year. With a national fleet of around thirty boats in 2017, demand for crew was not satisfied. As a result, fishers from Sri Lanka have come to work on Seychellois vessels. Local views on this flow of human resources have, however, been mixed. Some consider them as taking the jobs of local fishers at a lower cost. This view is carried by other small-scale fishers and some government officials. Others, mainly boat owners, see them as contributing to the development of the fishery. Sri Lankans are here seen as filling a labor gap because young Seychellois are less and less willing to take part in fishing. Here, tuna fishing brings in a flow of foreign labor, which, despite creating conflicting local views, is key to the development of a national tuna fleet.

The story of people linked to tuna also goes beyond the fishers themselves. The role of tuna in food security and providing work for other locals is significant. Tuna caught by the small-scale sector plays a nonnegligible role in feeding the local markets with protein sources. In the north of Madagascar, tuna caught locally has become a highly appreciated source of protein, considering the high cost of other protein sources. In the southeast of Madagascar, tuna

are carried on foot from the coast to isolated villages fifteen to twenty kilometers inland by local intermediaries. The importance of these intermediaries is largely undocumented in the value chain of tuna in Madagascar. In Mauritius and Seychelles, local catches of tuna not only go to the local markets but also to neighboring hotels. In the two islands, tuna contributes to food security of local residents and is also considered a high-value product in restaurants. The same applies to the catch of the semiindustrial fleet in the Seychelles where the tuna is shipped straight away to Europe and the United States through local processing companies, for fresh consumption.

As we have seen, despite its limited scale, the connections of people behind the small-scale and semiindustrial tuna fishery are essential to local livelihoods and produce foreign labor exchanges. This diversity brings a specific politics of care for the tuna resources at the level of each country. Caring about the tuna is not only strongly linked to taking care of one's livelihood but also to giving care to the community by providing livelihood to other members of the community. To maintain the benefits that the fishery generates for the local economies, a continuous access to tuna by both fishers and other indirect actors is necessary. This access is presently achieved through a low-intensity exploitation: use of smaller boats and limited fishing effort. Although it could be argued that the situation shows a lack of development in the fishery, the social interactions and lower pressure on the resources demonstrate that this way of fishing does benefit local actors and the tuna of the WIO.

THE CONTRASTED BENEFITS FROM THE INDUSTRIAL EXPLOITATION

The better-known aspect of tuna fishing in the WIO region is its industrial segment, undertaken by purse seine and longline vessels that are foreign-owned, mainly by European and Asian companies. This industrial exploitation is established through fishing access agreements under which access to the tuna resources of the WIO is granted by governments of the region in exchange for an access fee. The industrial tuna fishery has always been subject to various critiques, notably regarding equity of fishing access agreements and the sustainability of the exploitation (Gagern and van den Bergh 2013, 380–84; Gegout 2016, 2196–97; Le Manach et al. 2013, 5–7). DWFNs have responded to these critiques by advocating that the industrial tuna exploitation, through the access fee paid by DWFNs, represents a reliable source of revenue for national economies (Barnes and Mfodwo 2012, 11–20). They

also argue that for the three islands studied, it is an important source of local labor opportunities (European Union 2017; Hanazaki 2017). Here, we discuss the relevance of these two narratives, mainly through the example of the EU exploitation in the WIO, and attempt to establish who actually benefits from this segment of the fishery and how the tuna resources of the WIO are affected.

First, we start with the revenue argument. It is recognized that fishing access agreements are a significant source of revenue for coastal countries (Barnes and Mfodwo 2012, 11–20; Campling and Havice 2014, 715). In the case of Madagascar for example, revenues from those agreements are directly injected to the national budget, which funds different governmental departments (Le Manach et al. 2013, 261). In Mauritius and Seychelles, this revenue has been used for the construction of different port infrastructures or processing factories, as well as contributing to various capacity-building initiatives such as monitoring, controlling, and surveillance (IOC 2013, 71). However, in the broader picture of benefits, the price of access to the tuna resources of the WIO represents a minimal fraction of what fishing companies are getting as profit. As an illustration, the price of access to tuna resources in the WIO by the EU in 2014 was estimated at around 2 percent of the profits made by the EU fleet from the fishery (Poseidon et al. 2014, 86–87). DWFNs here have a strong discourse of taking care of the host countries where their fleet catch tuna. The economic model of access, however, shows that fishing by DWFNs' fleets is largely to accumulate profits that ultimately provide limited care to the host countries and their people.

If we look at labor opportunities from the industrial sector, we can highlight those of stevedores and cannery workers based in host countries. An interesting set of actors who access tuna further up the value chain are the local stevedores at port who land the tuna from EU purse seine vessels in the WIO. Although the practice is common in the three islands studied, in Madagascar the role of these stevedores in the local economy is substantial. In ports like Antsiranana, stevedores are offered or buy bycatch from industrial vessels (Government of Madagascar 2017). Bycatch species here are small or damaged tuna that are not taken by the canneries or nontuna species that are caught in the nets of purse seiners. Every evening of landings, stevedores sell the fish outside the port to intermediaries and local residents who welcome this fish as a sought-after local source of protein. A typical evening event consists of around one hundred men and women waiting for the fish to come out of the port. The tuna also goes from the port to local markets or is transported farther inland to remote villages through intermediaries. This indirect access to the resources, from which local residents are benefiting, constitutes a valid contribution toward food security for a vulnerable country like Madagascar.

DWFNs here can be considered as giving care to locals without necessarily intending to.

Industrial tuna fisheries are also a source of labor within the three islands through the canneries. In 2010, more than eight thousand people were working in tuna canneries in Madagascar, Mauritius, and Seychelles (Gillett 2011, 12). In Mauritius, the tuna cannery is the largest single employer in the country (Cervigni and Scandizzo 2017, 16). In addition to employing a large part of the local population, the canneries in Mauritius and Seychelles also hire migrant cannery workers from Madagascar and other countries of the WIO, such as Kenya. This flow of migrant labor, although key to the tuna economies, also comes with common issues of social integration (Craig 2015, 58–63). Considered as low-skill workers, migrant tuna workers often struggle to integrate, despite working on a shared resource of the WIO. From these two cases, industrial tuna fisheries bring benefit to local economies through employment but also bring in less apparent issues of labor migrations from which the tuna workers in the canneries suffer from.

Another aspect that weighs in the balance of benefits is the effect of industrial tuna fishing on the resources of the WIO. The destructive influence of industrial fishing is widely acknowledged (Kroodsman et al. 2018, 905; Sumaila, Bellmann, and Tipping 2016, 175). Despite the narrative of national benefits provided by the industrial tuna fishing, the tuna resources of the WIO are affected by this type of exploitation. As an illustration, the overfishing status of yellowfin tuna since 2015 has been attributed to the increase of fishing effort in the past eight years, including by the industrial sector, which catches more than 50 percent of the tuna in the Indian Ocean (IOTC 2016, 114–16). Local perceptions on the state of the resources also indicate a strong effect of this industrial exploitation. In our three case studies, actors and local fishers especially cite a substantial decrease in tuna resources and other fishes. Highlighting the role of industrial fishing in this situation, local fishers we interviewed at ports or in their villages made fierce remarks such as, "They do not choose what to catch, small and big fishes" (Elvis Won, local fisher in Seychelles, pers. comm.), "The big boats take all the tuna before the fish can get to our coastal waters" (Karon, local fisher in Madagascar, pers. comm.), and "They catch too much, they have very good equipment for that" (Judex Renfle, local fisher in Mauritius, pers. comm.). Visiting a couple of landing industrial vessels confirmed those stories. Walking inside a purse seiner, we could see mature tunas, juveniles, and other marine species caught in large amounts, suggesting a bleak picture for the WIO tunas and marine resources (personal observation). Little care is given to the tuna resources here. The industrial exploitation, in its current way of catching the resources, contributes to the depletion of the resources.

What is the politics of care of the industrial fisheries here? We have seen that a number of local actors and national economies are benefiting from the industrial exploitation. There is to some extent an engagement of DWFNs in *taking care* of the economies of the WIO countries. We have, however, also illustrated that those benefits do not outweigh the larger profits obtained by the foreign fishing fleets nor the detrimental effects of the fishery. The tuna resources of the WIO are not sustained by this segment of the fishery.

THE CHALLENGING WAY TOWARD SUSTAINING THE WIO TUNAS

As is the case in all oceans, tuna has a high value in the different segments of the fishery as well as up and down the value chain. The question is, then, what are the drivers that prevent stakeholders from ensuring the future of tuna resources in the WIO? For the case of the WIO, the answer is not easy, given the role of strong foreign interests as well as powerful capitalist firms in the fishery (Campling 2012b, 263–69). Three obstacles prevent real socio-ecological change in the way tuna is managed and a politics of care that puts the tuna and its people first.

The first obstacle is geopolitics. Coastal countries are strongly entangled with DWFNs, which provide various national benefits (Andriamahefazafy, Kull, and Campling 2019, 9). The level of economic dependency of countries here determines how much they can defend the need for a better management of tuna. During our observation of the 2018 IOTC meeting, we noticed that it was difficult, for example, for a government official from Madagascar, compared with those of Mauritius or Seychelles, to openly challenge actors such as the European Union or Japan, which are both fishing and providing consequent development aid to the country. In this context, interests in strong management measures toward the tuna are superseded by other national interests. Although attendance of the IOTC shows an engagement of governments in taking care of the tuna resources, showing real activities of care by taking actions that benefit the resources, remains a challenging decision to take.

The second obstacle is the exploitation system of tuna itself, considering the large portion of tuna caught by the industrial sector in the WIO, especially by purse seiners. This industrial exploitation has allowed the worldwide distribution of tuna, especially in cans. While reducing this type of exploitation and replacing it with less impactful fishing practice is essential for the long-term sustainability of tuna resources, addressing the question of satisfying the demand for tuna, consumed in most households, cafeterias, and restaurants becomes a political one: do we provide an affordable source of protein that

was caught with a destructive method? Or do we reduce the consumption of tuna and promote the consumption of tunas that are only caught with non-destructive fishing methods? Similarly, how can we shift to a less damaging fishing practice while the capitalist way of exploiting the resources has been part of the history of tuna fisheries? To address those questions and favor the management of tuna, a complete change of paradigm is needed in tuna fisheries, including in the WIO. As long as industrial exploitation is considered more beneficial than smaller-scale use of the resources, the tuna resources and the local people that daily depend on the resources will continue to be affected. Although consumers in developed countries have an array of choice for their protein intake, those of coastal countries do not have this privilege and rely heavily on marine resources. Without a shift toward a lower-impact exploitation, the future of the tuna resources will continue to be uncertain. Adopting the idea of giving care to the resources can contribute to a degrowth of the sector within which real socioecological change is possible along with more just benefits for the custodians of the resources.

The third obstacle is that tuna as a migratory species brings its own specificities for the use of the resources. Coastal countries only have jurisdiction over the resources when tuna is in their waters; local fishers with their current means of fishing are not able to follow the fish that goes beyond national borders, in the high seas (Campling and Havice 2014, 717–18). The combination of tuna movement, the marine environmental conditions, and the pressure put on the tuna biomass determines how much tuna is available to fish, to process, or to sell. In addition to the strong effects of fishing practices on the biomass of tuna, tuna remains a wild species for which cycles of productivity and movement are not fully understood (Kaplan et al. 2014, 1744). Other ecological factors such as climate change also represent out-of-sight and unknown variables for the future of tuna productivity and quality of feeding grounds of the resources. Different to other resources that are either stationary or moving within an accessible range, the vast movement of tuna in the ocean requires a broader care for the ocean, beyond sight and borders.

INSIGHTS ON MOVING FORWARD

How can we then sustain the tuna resources of the WIO and its people? We have seen that tuna fisheries in the WIO provide benefits to an array of actors, of whom some are less seen but equally dependent on the resources. From the local fisher who relies on the resources for livelihood to the intermediaries, cannery workers, or the capitalist fishing firms that feed the international consumer markets for tuna, all actors aspire to sustain their access to the

resources. These actors all have different interests and politics of care for the resources. For the case of the WIO and particularly in the three island countries studied, the main challenge lies with managing the industrial segment of the fishery and its effects on the tuna resources and local livelihoods. An improved care, involving robust actions for the improvement of the state of tuna resources, will require difficult trade-offs that are necessary to sustain the future of the resources. Nationally, there is a strong need to refocus the fishery toward those who are the most dependent on the resources, notably by giving more voice to the stories of livelihoods behind the local tuna fisheries. The question of whether to pursue industrial fishing or not can only be addressed by a systemic change at the global level, where the socioecological effects of the exploitation are fully revealed and prompt the adoption of less growth-oriented exploitation. It also requires a change in the supply-and-demand market where the real value of tuna is reconsidered and exposed to the consumer. Its reputation as cheap protein needs to be rebranded and include the socioecological costs of its fishing. Ultimately, stakeholders in the fishery need to realize that there is no win-win solution to sustain the tuna of the WIO. Caring for the tuna of the WIO demands putting the resources and their custodians first, at a potential loss for some economic and political actors.

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