POLICY PERSPECTIVE

Alternative pathways to sustainable seafood

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Abstract
Seafood certifications are a prominent tool being used to encourage sustainability in marine fisheries worldwide. However, questions about their efficacy remain the subject of ongoing debate. A main criticism is that they are not well suited for small-scale fisheries or those in developing nations. This represents a dilemma because a significant share of global fishing activity occurs in these sectors. To overcome this shortcoming and others, a range of “fixes” have been implemented, including reduced payment structures, development of fisheries improvement projects, and head-start programs that prepare fisheries for certification. These adaptations have not fully solved incompatibilities, instead creating new challenges that have necessitated additional fixes. We argue that this dynamic is emblematic of a common tendency in natural resource management where particular tools and strategies are emphasized over the conservation outcomes they seek to achieve. This can lead to the creation of “hammers” in management and conservation. We use seafood certifications as an illustrative case to highlight the importance of diverse approaches to sustainability that do not require certification. Focusing on alternative models that address sustainability problems at the local level and increase fishers’ adaptive capacity, social capital, and agency through “relational” supply chains may be a useful starting point.

KEYWORDS
alternatives, community supported fisheries, diversification, relational supply chain, seafood certification, social capital

1 | INTRODUCTION

Abraham Maslow, an American psychologist from Columbia University, famously observed that if a person only has a hammer, every problem starts to resemble a nail. His point is that too much focus on a single instrument or approach is often problematic. A “hammer” can thus be defined as a tool or strategy that is excessively endorsed or deployed in situations where it is partially or wholly ineffectual. The hammer metaphor has been discussed in a range of contexts and disciplines, including within the realm of marine conservation (Koeller, 2011). Degnbol et al. (2006:535) equate hammers to a type of “tunnel vision,” theorizing that tools become hammers when problem solving occurs in disciplinary silos. We focus on the application of sustainable seafood certifications in marine fisheries and consider how certifications are becoming a contemporary hammer in the marine conservation and stewardship toolbox. Our intent is not to diminish the role that seafood certifications can play, since they have been shown to promote sustainability (Gutierrez et al., 2012). Rather by framing certifications as a potential type of hammer, we aim to bring greater attention...
to the importance of alternative approaches to sustainability that are distinct from as opposed to derivatives of them.

2 | EXPANSION OF SEAFOOD CERTIFICATIONS

In the three decades since Unilever and the World Wildlife Fund (WWF) established the first fisheries-specific certification program, seafood certifications have had a coming of age, playing an increasingly central role in the quest for sustainability in fisheries. The Marine Stewardship Council alone now certifies 296 fisheries, accounting for approximately 15% of reported annual global landings of marine fisheries by volume (MSC 2017). The proliferation of certifications and the programs, systems, and processes that have emerged to support them have been particularly evident in the non-governmental sector, but, as we describe below, they are also playing an increasingly integral role in public management systems.

The theoretical basis for certifications is established on the idea that by differentiating “sustainable” seafood from “unsustainable” seafood, fishers that voluntarily engage in better fishing practices will be rewarded with higher prices for their catch. However, this economic incentive has not consistently materialized. Instead, consumers often express a preference for eco-friendly seafood (Jaffry, Pickering, Glum, Whitmarsh, & Wattle, 2004; Wessell, Johnston, & Donath, 1999), but tend to be reluctant to pay more when they go shopping (Jonell, Crona, Brown, Rönnbäck, & Troell, 2016) or prefer locally branded products (McLenachan, Dansanayake, & Chen, 2016). Furthermore, price premiums that have been realized have not generally been distributed to fishers (Bellchambers, Phillips, & Pérez-Ramírez, 2016; Pérez-Ramírez, Castrejón, Gutiérrez, & Defeo, 2015). This makes the link between consumer behavior and economic reward for more sustainable production practices tenuous.

Although seafood certifications have other auxiliary benefits, including helping to better organize fisheries management, the gap between theory and practice has necessitated a range of “fixes” geared toward sustaining and increasing participation (Figure 1). Barclay and Miller (2018), for example, point out that the incentive structure for certifications has changed from one based on reward to one based on penalty. This shift is often interpreted as coercion by the fishing sector, which is reflected in the testimony provided by a fishing representative during a hearing on seafood certifications in the United States convened by the Marine Fisheries Advisory Committee: “We are participating in an MSC evaluation,” states the representative “… because we feel we’ve been forced into it” (MAFAC 2013: 102). The reorientation of certifications from reward to penalty has been facilitated, in part, by the emergence of alliances between nongovernmental organizations and large retail companies. Through these partnerships, major retailers such as Wal-Mart that control many consumers’ access to food pledge to source exclusively from certified fisheries, whereby closing off markets to those who are not certified (Ponte, 2012).

The increase in demand for certified products on the downstream end of the supply chain has created a new dilemma: it has reduced the supply of seafood available to retailers (Bush, Toonen, Oosterveer, & Mol, 2013). A number of head-start programs have been created to help fisheries enter into the certification process and address this problem. Fisheries Improvement Projects (FIPs), of which many are coordinated by the Sustainable Fisheries Partnership (SFP), are one of the most prominent types of these programs. While FIPs and other similar initiatives are not formally part of the certification process, organizations that operate them are often closely linked to the certification process and describe themselves as being directly supportive. SFP, a member of one of the aforementioned conservation alliances between nongovernmental organizations and large retail companies, explicitly states on its website that FIPs aim to “achieve a level of performance that can be confirmed by certification in the future.” This framing clearly suggests that FIPs are not distinct from certifications, but rather a type of supportive “infrastructure” that is critical to their viability.

With the emergence of head-start programs has come concern that the bar for certification is being lowered to accommodate new participants (Sampson et al., 2015). One reason for this concern is that fisheries that are part of these programs can gain the same market access as those with certifications (Deighan & Jenkins 2015). Bush et al. (2013) describe the issue as a “devil’s triangle” because it is seemingly impossible to simultaneously encourage new participants, while also ensuring existing participants continue to work towards higher levels of sustainability, all the while maintaining adequate credibility. Different certification programs have taken different approaches to negotiating this dilemma by weighing sustainability standards differently (Wijen & Chiroleu-Assouline, 2019). This unevenness has created a need for greater surveillance of certifications and spurred the development of a global benchmark framework, called the Global Seafood Sustainability Initiative (GSSI 2015: 4), which aims to address “confusion among producers, retailers and consumers over how to recognize a credible seafood certification scheme.” This is to say that GSSI has become a type of arbiter, essentially providing a mechanism for certifying the certifiers.

The evolution of certification programs along with the emergence of FIPs, conservation alliances, and evaluative frameworks help to illustrate the expanding territory that certifications have come to occupy in the quest for seafood sustainability. However, this is not the extent of their domain or the end of the story. Parallel certifications and support infrastructure are being developed for aquaculture products.
Seafood certification programs are theorized to incentivize sustainable fishing practices by way of financial reward. However, certifications have not consistently created financial benefits for fishers. To address the misalignment between theory and practice, a series of “fixes” have been implemented (solid line) or proposed (dotted line), which have created their own challenges. Despite these investments, the success of seafood certifications remains the subject of ongoing debate (Jonell, Phillips, Rönnbäck, & Troell, 2013). At the same time, new certification programs are emerging to account for fishers’ well-being and participation, since one of the critiques of certifications is that the human dimensions of fisheries have been largely absent from most efforts (Bailey, Bush, Miller, & Kochen, 2016). Some governments and industry groups are also starting to resist certifications because they feel like they are encroaching on their authority and autonomy (Stoll & Johnson 2015). Ironically, instead of rejecting certifications outright, these entities are considering or have started their own certifications (e.g., Alaska Seafood Marketing Initiative). Additional new ideas are being proposed as well to address persistent and emerging problems, such as reputational risk associated with varied and untested certifications. For example, Roheim, Bush, Asche, Sanchirico, and Uchida (2018: 385) have put forward the idea of Sustainable Seafood Aggregators as a way for companies to make sense of the sea of different certifications and manage their exposure to risk from buying seafood. These aggregators, they propose, would function much like investment brokers managing clients’ mutual funds. For companies with a strong commitment to ecological sustainability, the seafood portfolio might include recommendations for products that are certified by entities with high environmental standards, while a company with a brand that is less tied to sustainability messaging might be recommended fisheries in FIPs or those with certifications that have lower standards. While it remains to be seen if this concept will be adopted in practice, it hints at the ongoing challenges that seafood certifications face and the possibility that additional fixes will create additional layers of investment.

3 | USING A CONSERVATION TOOL AS A HAMMER

The history of seafood certifications is defined by its rapid expansion and evolution, which has been punctuated by a
series of changes aimed, in part, at addressing problems that have limited participation (Figure 1). On the one hand, this pattern of development is reflective of the adaptive nature of certification programs and the ingenuity of their architects as they have continually worked to trouble-shoot their programs. In some ways, this is a hallmark of the adaptive cycle and a signal of the responsiveness and sensitivity of certification programs. Yet these fixes, we argue, are also illustrative of a deepening investment in a single tool that has not been wholly effective at achieving socioeconomic and environmental sustainability and faces persistent challenges. This deepening is reflected not only in the way that solutions to problems are being stacked on each other, but also in the expanded role that certifications are playing in fisheries governance. Certifications have long been viewed as a type of non-state, market-driven governance (Cashore, 2002), whereby non-state actors use them to motivate sustainable business practices through economic incentives (Jacquet et al., 2009; Wessell et al., 1999). Because they have traditionally existed outside public regulatory and management frameworks, but are designed to alter behavior, they can shift the balance of authority away from public management bodies (Foley, 2017; Gutiérrez & Morgan 2017; Stoll & Johnson 2015). Yet, perhaps in response to this perceived loss of authority, government authorities are increasingly integrating certifications into their governance process (Foley, 2017). In Western Australia, for example, the government has invested $14.5 million in MSC certifications for its fisheries to “deliver greater confidence” in the sustainability of its management system (PIRD 2017). In doing so, certifications are no longer just external drivers of change that are being exerted on public management systems, but they are part of them.

There is nothing inherently problematic with making deep investments in conservation tools. However, in the case of seafood certifications, these investments are being made despite legitimate concerns about their efficacy and execution (see Wijen & Chiroleu-Assouline, 2019 for an overview). Furthermore, there is a general consensus that certifications do not work well in small-scale fisheries or developing world contexts (see Gulbrandsen, 2010 for an overview). Indeed, despite targeted efforts to encourage these sectors to participate, only 8% of the fisheries that are certified by MSC come from developing countries (Duggan & Kochen 2016) and in regions like Latin America and the Caribbean only 4% of fisheries are certified (Pérez-Ramírez et al., 2015). This represents a significant gap considering an estimated 37 million people participate in small-scale fisheries (FAO 2012).

4 | ADDING TOOLS TO THE SUSTAINABILITY TOOLBOX

Baines and Edwards (2018) delineate between production systems that are founded on “relational” connections and those that are “transactional.” Relational connections refer to those based on personal ties, trust, and direct communication. These contrast with transactional connections, which place an emphasis on monetary exchange and tend to result in weak or non-existent ties between consumers and producers. This categorization is not binary, as seafood supply chains can express both relational and transactional characteristics, but the ontological distinction is useful in considering the linkages that exist (or do not) between harvesters and consumers.

As seafood supply chains have become increasingly globalized, the relationships that consumers have to the sources of seafood they eat and the social and ecological costs of the associated fisheries from which it is derived have been increasingly “masked, diluted, and drowned out” (Crona et al., 2016: 1175). Seafood certifications act to reduce the consequences of this attenuation by outsourcing oversight and attentiveness to third-party actors and re-enforce a “commitment to world order norms and institutions” (Foley, 2018). However, given the challenges associated with implementing certifications in the small-scale fisheries and developing world contexts, alternative approaches to promoting sustainability are needed. Focusing on alternative models of sustainability that address problems at the local level through relational seafood supply chains (RSSC) may be a useful starting point.

RSSC can be understood as production systems that better connect fishers and consumers via geographic proximity and other means. Examples of RSSC can be found worldwide (e.g., Pascual-Fernández, Pita, Josupeit, Said, & Rodrigues, 2019, Salladarré, Guillotreau, Debucquet, & Lazuech, 2018) and data from North America show that they are becoming increasingly prevalent in this region (Figure 2). These arrangements take on a diverse range of corporate structures and marketing practices (including operations like community supported fisheries, fisher men’s markets, dish-to-plate programs), but a unifying dimension is that they aim to explicitly strengthen the feedback loop between small-scale harvesters and consumers (Bolton, Dubik, Stoll, & Basurto, 2016). We posit here that the relationships that come from RSSC and their associated feedback loops, create the conditions necessary to catalyze action towards sustainability in three central ways.

4.1 | Financing adaptive capacity

RSSC can provide a way for harvesters to earn more for their catch (Brinson, Lee, & Rountree, 2011, Stoll, Dubik, & Campbell, 2015). Harvesters are able to capture more of the value of their catch, in part, because RSSC shorten the chain of custody between harvesters and end-consumers (McClenachan et al., 2016). Harvesters are also able charge a price premium for their catch because the relationships that are forged between harvesters and consumers through
Figures

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FIGURE 2 Locations \((n = 503)\) of drop-off points associated with relational seafood supply chains in North America. Data source: Local Catch Network (2019)

RSCC add value to consumers’ purchasing experiences. The extra revenue generated through RSCC helps harvesters maintain their livelihoods (contributing to social sustainability) and also enables harvesters to make investments in technology, research, science, and management that contributes to the health of the fisheries that they depend on (contributing to environmental sustainability). In Alaska, for example, one entity that is investing in connections between consumers and producers called Alaskans Own provides shares of salmon to consumers throughout the state and uses the profits it receives to invest in locally relevant conservation activities and ensure local access to fisheries long term. Their investments have supported a range of initiatives, including projects focused on bycatch reduction and habitat mapping. In another case, an Oregon-based enterprise, Port Orford Sustainable Seafood, is acting as the economic catalyst for the Port Orford Research Team, which is the champion of a marine and upland reserve that covers 1,320 square miles of ocean and watershed habitat called the Port Orford Community Stewardship Area. This stewardship area is being viewed as a cornerstone of ecosystem-based fisheries management in the region.

4.2 Facilitating production of social capital

The second way that RSCC can contribute to sustainability is by creating opportunities for harvesters to build social capital with each other and with consumers, the latter of which often exist outside harvesters’ immediate social networks (Stoll et al., 2015). Social capital is the value derived from interactions between individuals and groups, and in the case of RSCC, it is helping to facilitate solution-focused entrepreneurship and creates space for harvesters to organize and operationalize sustainability in context-specific ways. The production of social capital in RSCC is rooted in the regular and often persistent interactions that harvesters have with each other and with consumers that emerge from these marketing arrangements. Numerous examples of social capital building exist in RSCC, and the outcomes are particularly evident in the ways in which RSCC’s are facilitating collective action and organizing among harvesters at different scales. In North Carolina, for example, an RSCC led to the creation of a cooperative that is designed to help harvesters increase the value of their catch through shared profit distribution (Stoll et al., 2015). The relationships forged with consumers, including students and faculty at a prominent university, have also created a number of opportunities, including an effort to test seafood for mercury and PCBs contaminants (Freitag, Sohn, Hooper, & Ritschof, 2012). The results of this work helped consumers gain confidence in the healthfulness of the seafood they were buying and provided data that harvesters used to challenge the designation of blue crab as a “dirty dozen” on a prominent seafood sustainability card. In another case, Sitka Salmon Shares, which delivers seafood from Alaska to the Midwest, is investing a portion of their profits in efforts to strengthen a network of small-scale harvesters in North America, called
Local Catch, that is “committed to providing local, healthful, low-impact seafood via community supported fisheries and direct marketing arrangements in order to support healthy fisheries and the communities that depend on them.” This network was founded in 2011 as a way for those engaged in RSSC to exchange knowledge and lessons learned, and as it has grown, it has become increasingly involved in efforts to leverage members’ collective experiences to train and facilitate RSSC around the world.

4.3 Catalyzing agency

Finally, RSSC are, in some instances, contributing to sustainability by helping to empower small-scale harvesters and make it more possible to influence change in policy arenas at multiple levels of government. By creating a connection between consumers and harvesters, RSSC help to make visible the people that harvest seafood. This visibility is a perennial challenge for small-scale harvesters who are often poorly represented in policy and management discussions. Examples of the ways in which actors engaged in RSSC are leveraging their visibility to become involved in formal management bodies are relatively common. In one case, for example, the founder of a RSSC in North Carolina was invited to join the state’s fisheries management body, called the North Carolina Fisheries Commission. Although the RSSC is no longer operational, she remained on the commission until 2018. In other instance, two leaders involved in different RSSC were named Seafood Champions by the president of the United States during the Obama Administration. This process of becoming visible in the policy area, makes it more possible to contribute to fisheries management.

5 MOVING BEYOND HAMMERS

While many RSSC have the potential to help drive sustainability practices in fisheries by financing adaptive capacity and facilitating production of social capital, RSSC are no more a guarantee of sustainability than are seafood certifications. Nevertheless, part of what makes bottom-up, relational strategies like these intriguing and different from seafood certifications is that they place the ingenuity and problem-solving capacity of fishers and coastal communities at the forefront of the discussion. Co-generating alternative pathways will not only leverage this ingenuity and creativity, but may also increase the likelihood that they will address sustainability problems at the local level. This perspective is consistent with the Voluntary Guidelines on Securing Responsible Small-Scale Fisheries, which explicitly calls for increased participation by the small-scale fishing sector (FAO, 2015).

Recognizing that no one approach or strategy will be a panacea to global challenges or complex issues, caution should be taken in trying to apply useful conservation tools, such as seafood certifications or RSSC, too broadly. While our focus in this paper is on seafood certifications, we posit that there are likely other hammers being used in fisheries and other natural resource sectors. Avoiding this tendency will require greater investments in designing, testing, and promoting alternative and legitimate approaches that offer solutions for the diversity of fisheries in operation today, and those that will emerge in the future.

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