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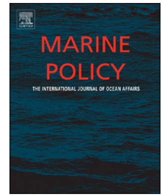
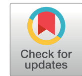


Fisheries as social struggle: A reinvigorated social science research agenda



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ABSTRACT

Many social scientists in the field of fisheries display a strong concern for the social engineering of environmental sustainability, but also a tendency to identify with the concerns of government. This paper posits that social scientists have their own responsibility in the fisheries field, and that this responsibility includes more attention to the realm of social struggle and distributional justice. Social struggles within and over fisheries are argued to be globally intensifying, as a result of four trends: (1) the condition that inshore fisheries have now largely become a zero sum game; (2) the new sets of controls that are occurring in the fish value chain; (3) the incursion of new business interests into marine and coastal space; and (4) the increasing participation, if not interference, by governments in what used to be mainly fisher affairs. Not only does a reinvigorated social science agenda create attention to other, neglected domains of fisher society; the authors argue that addressing distributional justice concerns may be a precondition for achieving sustainable human-nature relations.

1. Introduction

La Terra Trema, the prize-winning film directed by Luchino Visconti (1948), is about an isolated fishing community in eastern Sicily that suffers from the vicissitudes of nature, but also from exploitation by fish traders who pay low prices and charge exorbitant interest rates, thus keeping fishers mired in poverty. It highlights the fortunes of one family that tries to break free from this oppression, but tragically fails. The recent South Asian movie, *Tiraikadal*, directed by Janaki Viswanathan, also features struggle, but one that is taking place between trawl fishers of India, who have become habituated to fishing across the border, and a large population of Sri Lankan small-scale fishers who are losing important livelihood opportunities because of trawl incursions. The conflicts that takes place between the two groups of fishers involve courts, navies, political parties, ministers and presidents, and fisher leaders. The hero and heroine in the film belong to the two antagonistic parties and, like modern-time Romeo and Juliets, die in their attempt at reconciliation.[1]

The point these films, and many others of their kind, make, is that fisheries are about relationships: between fishers and nature, but also between fishers and others in their human environment[2]: other fishers, traders, government officials, and competing interest groups. The contemporary, mainstream fisheries literature seems to be mainly concerned with 'getting the relationship with nature right'. The main issue is overfishing, and the aim is to arrive at a more 'sustainable' relationship between fishers and the marine environment. This matter is of undeniable importance, for fishers and the policy world alike, but it is only part of a larger picture. Fishers also have other concerns that follow from the manifold struggles they are involved in; such struggles centre on the distribution of resources, on political recognition, and on what they see as fairness.

This paper argues that social struggles within and over fisheries are globally intensifying. The intensification of such struggles follows from four trends: (1) the condition that inshore fisheries have now largely become a zero sum game, with the gains accruing to one person or group automatically resulting in losses to another; (2) the new sets of controls that are occurring in the fish value chain that add to the earlier exploitation of fishers by merchants; (3) the incursion of new business interests into marine and coastal space, which changes the opportunity structure of access to fish resources and markets; and (4) the increasing participation, if not interference, by governments in what used to be mainly fisher affairs. These trends must be viewed in mutual connection, because they tend to reinforce each other. Each trend is discussed separately in Section 3 below; the argument is that many injustices are

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[1] In view of the highly politicized nature of the conflict, and the director's fear for reprisals, at the time of writing *Tiraikadal* has not yet been released.

[2] "[P]eople confront nature through social interactions and relations and the mental universe produced, reproduced and transformed in these relations (including their images of nature), while nature acts upon them" [75]: 70).

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repairable by political, institutional and legal reform, but easily get stuck in disadvantageous power relations. Social struggle often occurs over efforts at remediating perceived unfairness.

The contention is that current academic debates on fisheries are largely myopic, and require broadening. Scholarly attention to the struggles in which fishers engage is relevant, for one thing, because this impacts their relations with nature. Thus, as Fabinyi et al. [24] point out, while fishers are "in many instances aware of and keen to act on resource sustainability, this concern [is] overridden by concerns over: who obtains benefits from the fishery; who is responsible for resource degradation; and who should bear the costs of regulation." [24]. In other words, addressing social justice concerns may be a precondition for achieving sustainable human-nature relations. For another, it reminds us that fisher societies – like all others - are driven by more concerns than one, and that the scope is to be widened if their workings are to be understood [8,43].

The next section provides an analytical perspective on social struggle as it relates to fisheries. Section 3 presents evidence that social struggle in fisheries in the Global South and the North is often increasing and explores the trends that have caused this increase. The final two sections return to the need for a reinvigorated social science agenda in fisheries, in which social struggle and its policy implications are given more attention.

2. The nature of social struggle in fisheries

For fishers to engage in fishing, they rely on potentially conflictive relationships with a wide range of actors. These include a) other fishers with whom they compete for fish resources, b) post-harvest actors with whom they negotiate for getting adequate prices, c) coastal developers with whom they fight for coastal space, and d) formal and informal authorities with whom they negotiate about the setting and application of rules.

Conflict provides a useful entry point for examining the nature of social struggle in fisheries. Various scholars have enquired into the nature thereof. Most attention has been devoted to understanding conflicts between competing fisheries sectors in the context of common pool resource usage. For examples, Palsson [51], in line with McGoodwin and Platteau [47,54], argues that "[M]any fisheries conflicts derive from the different rationales of production of the household economy of local small-scale fishing and the market economy of industrial fleets" (2015:227). In an earlier paper, Acheson [1] suggested that to resolve such conflicts, fishers "use force and political pressure […] in an attempt to reserve access to the resources" [1]:289). [18,19] and Bennett et al. [12] use a broader lens and argue that fisheries conflicts follow primarily from contradictory economic interests and competing worldviews. Bavinck [4] adds to this the notion of legal pluralism, arguing that conflicting fisher groups often refer to different bodies of law and therefore do not agree about the principles and approaches to solving conflicts (cf. [38]. More recently, Pinkerton [52] discusses conflicts in fisheries in relation to the effects of neoliberal policies of enclosure, privatization, and deregulation. Jentoft [39] addresses the conflicts that follow in the wake of new stakeholders entering and competing for marine space.

The choice of the term social struggle – rather than conflict – is deliberate, highlighting three features. The first is that social struggle is a collective, not an individual effort. Second, it is not momentary, but prolonged, stretching out over longer time periods. Finally, it is a serious and never a frivolous matter, involving substantial investment of resources, such as human and social capital, and having objectives that are important to people. It is clear that social struggle may take place horizontally, that is, between groups of more-or-less equal strength, but also vertically, whereby the parties involved possess and may apply different levels of power [56]. In the latter case, power inequalities are often structural in nature, resulting in various manifestations of exploitation. Yet the notion of social struggle is also suggestive for the possibility of resistance and change. Hence, the term social struggle includes recognition of the suffering that occurs from marginalization and the hope for transformation thereof.

Social struggle possesses at least three dimensions. The first dimension consists of the material stakes involved, which can include money, time, power, and health. The idea here is that social struggle can be ignited under conditions of exclusion from (access to) resources for some, in conjunction with accumulation of the same resources by others. Harvey [35] refers to this phenomenon as 'accumulation by dispossession'.

The second dimension concerns the observation that such objective deprivation is rarely the only factor explaining the mobilization of social groups. Instead, people's subjective feelings of injustice are necessary for spurring contestation [58,75]. As Sen [63] points out: "What moves [human beings], reasonably enough, is not the realization that the world falls short of being completely just […] but that there are clearly remediable injustices around us which we want to eliminate" (2009: vii). Bavinck and Johnson [7] further argue that perceptions of injustice are triggered when fishers are unable to act upon established fishing rights. When perceived injustices are suffered by collectives, social struggle is born.

While perceived injustice is important in understanding people's motivational drivers, it is not necessarily able to explain when and how collective responses take shape. In other words, strong perceptions of social injustice do not necessarily lead to collective agitation. For the third dimension one therefore needs to turn to Tilly's [69-71] historical investigations of contentious action (or, popular collective action), in which "linked sets of people make claims on individuals or sets of individuals outside their own number" (1987:227) and to subsequent authorship on contentious politics and social movements (e.g. [67,68]. As Scholtens [58] points out, in this literature "collective action is understood as a typically contestatory strategy of ordinary people to pursue their claims for social justice against better-equipped opponents" (2017:934). In the course of history, fishers across the world have formed movements, unions and cooperatives to pursue a range of collective strategies for asserting their resource claims in the face of perceived injustices [44,58].

In conclusion, this paper understands social struggles as the result of fishers' material deprivation, perceived injustices, as well as collective responses. Importantly, this means that one can also speak of social struggle in the absence of visible agitation, as such direct action may be suppressed, co-opted or diluted. The next section argues that fishers' struggles have frequently intensified over the past century because of a range of changing human conditions.

3. The intensification of struggles

3.1. Capture fisheries as a deepening zero sum game

Many years ago, Foster [29] wrote an influential article called 'the image of limited good', criticizing peasant societies for their restricted notion of the world as a place in which one person's increasing welfare will automatically result in another person's loss. Assuming that fishers can be categorized as 'peasants', one can argue that, contrary to Foster's perception at the time, fisheries are increasingly the scene of such zero-sum games: the gains of one fishing fleet are the loss of another and the allocation of space or resources to another party goes at the expense of fishers. It is therefore no surprise that fisheries are characterized by strong expressions of social struggle.

FAO [28] estimates current world catches at 93.4 million tons, with 89.5% of fish resources being fished to a maximum or beyond. Figures suggest that, despite tremendous increases in fishing capacity and fishing effort [11], total landings have stagnated since the 1990s. The average reported harvest per capture fisher has declined from just under 5 t annually in 1970, to only 2.3 t in 2012 [25,27,78]. However, such figures of declining catch per unit of effort hide an essential

feature, that is the increasingly skewed distribution of the catches over different segments of the fishing industry. Thus, according to Pauly and Zeller's [50] updated Thompson table, 4% of the fishers are currently responsible for 76% of global marine catches.

Some of the most momentous and widespread social struggles that have occurred in the fisheries relate to the industrialization process as it has unfolded in fisheries since the middle of the 19th century [16,31,45,5,65]. In the South, the modernization of fisheries has resulted in the creation of a modern, semi-industrial or industrial fishing sector next to a large small-scale fishing fleet [4,5,54]. In many cases, the former impinge on the inshore fishing grounds of small-scale fishers, resulting in catches of the former going down.

The fisheries of India provide a good example: the semi-industrial fleet of so-called mechanized boats that was introduced in the 1960s, currently represents a quarter of the total fleet but lands 70% of the country's catches (up from 7.6% in 1960) [36], with the growing population of small-scale fishers having seen their contribution seriously reduced [33]. The stabilization of fish catches since the 1990s has contributed to greater competition, and social struggle, between the two sectors. The fact that the two fisher populations also belong to – partly – separate social systems has served to intensify conflict. Denmark provides another case in point: following the introduction of a market-based fisheries management system in 2007, by "2011 15% of the commercial vessels accounted for over 90% of the total catches measured by volume," which has left a vast number of fishing communities idle [37]: 7).

The crunch exerted by the zero sum nature of many fisheries is augmented by demographic trends. While many fishers, particularly in the North, have left fisheries, the total number of capture fishers in the world has actually been increasing at a rate higher than average population growth [78]. FAO [28] notes that the largest number of fishers in the world currently live in Asia, followed by Africa and Latin America and the Caribbean. Importantly, their numbers have increased significantly not only in the past fifty years, but probably over much longer periods of time.[3] In an earlier publication, Eide et al. [23] suggested that this increase cannot be explained from natural growth alone, but is probably related to large-scale immigration into the fisheries.

The growth of the number of fishers in the South cannot be separated from the relative stagnation of rural economies in many countries, fishers' lack of appropriate skills for other possible livelihoods, and the fact that average fish prices have been steadily increasing,[4] probably allowing fishers to survive on lower average catches. As Bromley [14] points out: "Much of the pressure on natural resources in artisanal fisheries…are the quite expected result of the complete absence of feasible livelihood prospects outside of fishing… Coherent economic development policies at the national level would be a plausible means to improve these marginal livelihoods of the poorest of the poor – and to protect natural resources" ([14]:18–19).

A reverse demographic trend has occurred in the North, where the number of capture fishers has decreased dramatically over the past century. This is due to changes in technology and a push for economic efficiency, which required fewer people to catch the same amount of fish, and the economic restructuring not only of the fisheries but of the industrial societies of which they are part. Government policy has played an important role in this process, which has accelerated dramatically with the introduction of market-based quota systems [52,53]. The primary sector in these countries now employs only a small percentage of people, with many having moved into the secondary and service sectors. This shift has not always been voluntary, however, and the reorganization of the fisheries has pushed out many against their wills [37]. For some, fisheries was a preferred 'way of life' [72], suited to their individual temperaments [62] and essential to the existence of their coastal communities. Thus social struggle may be associated both with increasing as well as with decreasing numbers of fishers.

3.2. Tensions in value-chain distribution

The movie La Terra Trema is illustrative of conflicts that stem from the distribution of values and benefits within the vertical value chain, between those who harvest the fish and those who process and market it. This is an issue that involves direct conflicts of interest, as when prices are negotiated. Fishers have a strategic disadvantage by landing a product that quickly deteriorates if not handled adequately and expediently. Often fishers are tied to a middleman (who may well be a woman), who in addition to be the buyer of the fish is also a provider of services such as credit and fishing equipment. This makes fishers vulnerable to pressure, sometimes to outright exploitation. For instance, the buyer can decide to withhold the offer in anticipation that the price will come down. Monopsony, or oligopsony power may enable the buyer to dictate the price in ways that keep the fishers trapped in debt (as in La Terra Trema) with few opportunities of escape, unless they manage to mobilize collectively.[5] This happened in Norway in the 1930s when fishers' struggle resulted in legal reform that turned the table in their favour [40]. The new law facilitated the formation of cooperative sales organizations that were legally granted the power to fix minimum prices of raw fish sales, which buyers had to accept. This empowered the fishers in a way that effectively broke the poverty cycle they found themselves in. Norway may be a unique example of a social struggle resulting in structural change, but demonstrates the difference that government can make when intervening into exchange relations rigged to disfavour the poor. The Norwegian case also illustrates that bargaining over conditions in the value chain never happens in a power vacuum that is given once and for all. Collective struggle can lead to empowerment of the poor, and thus real social transformation. The form of organization – such as whether transactions are internalized as when buyer and seller are within the same organization like a cooperative, or operate as individual actors in a market with no other social ties that those of the transaction - is also relevant [76]. The vertical integration of the value chain affects the relations between units in different ways. Notably, it matters whether vertical integration happens from the bottom-up, as when fishers form a cooperative and take over the processing and marketing function, or from the top down, like when a fish processor or retailer owns fishing boats operated by a hired crew.

Certification processes and quality requirements imposed by fish importers can provide additional sources of exclusion especially for small-scale fishers in low income countries [34]. The Marine Stewardship Council has – for example – been frequently criticized for its very limited certification of small-scale fisheries [55] and while dominating the market for 'sustainable fish', it has so far "failed to convincingly show that its certification system has positive environmental impacts, and it has marginalized Southern fisheries, especially in low-income countries" (ibid.: 300). Resistance to neoliberalist fisheries policies is argued to create momentum for alternative seafood marketing programmes that benefit small-scale fishers [77].

[3] FAO's data base on fisher numbers dates back only to 1970, and comparable data bases for earlier periods are unavailable. With markets, infrastructure and technologies improving throughout the period of industrialization, however, and fisheries spreading geographically along coasts, it is likely that fisher numbers have been increasing for much longer periods of time on a world scale.

[4] See the FAO Fish Price Index (http://www.fao.org/in-action/globefish/fishery-information/resource-detail/en/c/338601/, accessed 15-8-2017), Tveterås et al. (2012) [73], and Delgado et al. [21]. These sources analyse trade figures for a select number of species for international markets, with the FAO's fish Price Index taking 1990 as baseline.

[5] Social scientists have documented such relations in all parts of the world. Recent contributions include Fabinyi (2012); Johnson; and Miñarro et al. [41,49].

3.3. The changing opportunities of access to the coast

Not only fisheries, but coastal regions are changing in ways that threaten the opportunities available to fishing communities. As Glavovic [32] points out, coasts the world over are "disproportionately productive and valuable… [they] are thus the locus of acute population growth and development intensification" (2013:914). While navigation and fisheries were the traditional occupations practiced along coasts, a panorama of new business sectors has now emerged, including mineral exploitation (oil and gas), wind farms, coastal tourism and aquaculture. Such enterprises make demands on coastal space and resources, such as water, blocking access to the beach and sometimes impeding the practice of fishing. Industrial zones established in proximity to the coast bring about other problems, such as pollution, which can seriously affect the marine ecosystem but also the health of the coastal population. With the economic value of coastal space going up, the incentive to remove fishing populations too increases. The realization that coasts provide a unique set of environmental services MEA 2005 [48], which are being seriously degraded, has resulted in an increasing number of protected areas, here again competing with fisher uses of coasts and seas. Parallel to the more general debate on land grabbing [42], Bennett et al. [13] refer to "ocean grabbing", while Bavinck et al. [10] discuss coastal grabbing. The latter is defined as the involuntary transfer of property rights from local inhabitants to outside interests. It is easy to imagine that all these processes give rise to conflict, and that social struggle often evolves, certainly if fishing populations have limited options to move into other, alternative occupations.

3.4. Increasing government participation, if not interference

One of the most obvious trends taking place the world over, is the increasing participation of government in fisher affairs. While in many regions of the world, well into the 20th century, fishers used to live an isolated existence, largely managing their own affairs, government agencies have now – for many reasons – started to participate, if not steer, the direction of fisheries and coastal development [31,5,9].[6] Whether this is a desirable development or not is a matter of perspective. From one angle, particularly prevalent in fisheries management discourse, governments are the more-or-less legitimate decision-making bodies that give guidance for managing fisheries in the best interest of a country. Government authorities are presumed to be necessary to deal with the commons character of the seas, and to prevent free-riding behaviour in the best interest of all by designing and implementing policies that are supposed to be effective, efficient and fair. From this perspective, as the 'guardians' of Exclusive Economic Zones, governments and the international agencies and agreements to which they are part, possess a major and 'natural' duty in addressing the challenges of overfishing and degradation of the marine environment.

But Fukuyama [30], in his major work on the origins and decay of political order, introduces a point of order:

> "There is a political deficit around the world, not of states but of *modern* states that are capable, impersonal, well organized and autonomous. […] Many appear to be strong in […] despotic power, the ability to suppress journalists, opposition politicians, or rival ethnic groups. But they are not strong in their ability to exercise […] infrastructural power, the ability to legitimately make and enforce rules, or to deliver necessary public goods like safety, health and education" (2014:38, emphasis in the original).

To this list of 'necessary public goods' one might add 'sustainable fisheries'. Importantly, Fukuyama notes that the qualification of a political deficit is not merely appropriate to poor developing countries, but to many nations in the North too. Political institutions, and their functioning, are therefore an important topic of study, also in the fisheries field. In line with a more critical perspective on government, one notes that states often represent more limited interest groups and are not necessarily accountable to coastal populations. Economic elites often have disproportionate access to state resources and are disproportionately able to make policies and authorities work for them. The fact that 84% of all fisheries subsidies are allocated to large scale fisheries (who represent only 4% of the world's fishers) epitomizes this trend of elite capture [50,61]. Governments also have other policy goals, such as increasing the legibility of their populations for the purpose of control [60]. Scott [59] thus draws attention to how out-of-the-way people, rebelling against state incursions into their societies, practice the 'art of not being governed'.[7] Such rebellions can easily be re-cast as social struggle.

It is clear that fishers do not always agree with the directions of government, and sometimes choose to revolt. At the time of writing, two illustrative incidents come to notice. In the Netherlands, on August 29th, 2017, the fisheries inspection division of the Netherlands Food and Consumer Product Safety Authority (NVWA) lodged a case of manslaughter against the crew of a fishing boat that allegedly tried to kill its inspectors over new EU regulations regarding bycatch (NRC Aug 30, 2017). On Aug 31st, in Pondicherry, India, fishers refused to take part in a government-initiated safety drill with regard to a new chemical factory, citing that rather than engaging in remedial action, they wanted the factory closed altogether (Hindu, Sept 1, 2017).] The question here is not whether fishers are right and government is wrong, but that fishers obviously do not always agree with the intentions and the implementations of government, and that this merits social science attention.

4. Discussion

In common pool resource spaces, such as the oceans, resource access – i.e. the ability to benefit from resources - can be secured by a variety of mechanisms, including technology, capital, skills, and law [57]. The blue revolution that has occurred in the fisheries since the late 19th century (with developing countries joining the race mainly after Independence) has, as has already been noted, transformed the sector also with regard to the accessing of marine resources. Technology has allowed new resources to be tapped, the precision of fishing operations to increase, and total capacities to grow. Importantly, this technology has not been universally available. Inequalities in access to technology have therefore been additional triggers of social struggle. Such inequalities have been created through differential access to financial capital and infrastructure, government policies, social connections and, perhaps, variations in entrepreneurial behaviour. The result has been a restructuring of fisher societies, with groups acquiring different capabilities of access than they had before.

Law has played an important part in this process. While customary law played a strong role in regulating fisheries in the past, governments have expanded their involvement in the fisheries, imposing their own sets of regulations for determining who has the right to fish, as well as the manner in which fishing should be carried out. The Law of the Sea has expanded national governments' jurisdiction, while international law is becoming more influential too [6]. The result is that the fisheries are governed by a motley bunch of regulations, originating in different legal venues. The weakening positioning of customary tenure law, which gave small-scale fishers a measure of protection, is now an international concern. FAO's Voluntary Guidelines on the Responsible

[6] Neoliberal ideologies have, in some countries, resulted in a reduction of governmental regulation in some countries since the 1980s. In general, however, the trend since 1900 has been for more rather than less governmental interference.

[7] While Scott's treatise is about the mountainous peoples in the tribal belt of South East Asia, he suggests that it could be applied to 'watery regions of refuge' as well (Scott 2014: xiv).

Governance of Tenure (2012), and the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (2014) signal the importance of maintaining customary tenure also in fisheries. Their emergence and ratification now is no coincidence. FAO [26] thus notes that "[T]enure systems increasingly face stress […]. Inadequate and insecure tenure rights increase vulnerability, hunger and poverty, and can lead to conflict and fight environmental degradation when competing users fight for control of these resources" (2012: v).

Section 3 above highlighted some of the main reasons why social struggles in fisheries persist and have often actually intensified over time. Four axes of struggle, that include different societal parties, were identified. The first axis pits fishers against fishers: locals against migrants, small-scale against large-scale, and one gear group against another. Taking a fisher perspective, this set of struggles is unique, because all parties share some kind of common fisher identity. A second axis of struggle sets fishers in opposition to actors in the market chain – this has reared its head since the early days of commodification, but is achieving new shapes. Third, there are the struggles that occur between fishers and new interest groups in the coastal zone – these struggles do not relate directly to the profession but focus on competition over space and other resources. And then there are the struggles that emerge between fishers and government authorities; as government appears to the rear of various parties, but also interferes directly in fisher affairs, struggles do not limit themselves to a single axis, but may be varied, and perhaps more pervasive in nature. The deepening of the zero sum game, the widening of the range of actors in the fisheries realm, and the greater measure of competition for space and resources all contribute to intensification of social struggle.

Struggles may be small or large in intensity and violence, pitting opponents against others relatively equal or quite unequal in power. They may take place at different scale levels. Whereas some social struggles relating to fisheries are very much local in nature, and barely reach public notice, others have a regional, national or an international character. While some are spontaneous, developing rapidly around a particular grievance, others become organized, such as into social movements. And while some remain contained and inner-focused, others spread out as ripples in a pond, bringing in allies of various kinds. In today's world, such allies might belong either to civil society, the market or the state, with their role varying from minor to overpowering.

The paper argues that, if one considers the collection of social struggles in a long term time perspective, significant shifts can be noticed. Thus struggles on axes 1 (fisher-fisher) and 2 (fisher-merchant) are obviously of the oldest kind, whereas axis 3 (fisher-new interests) and axis 4 (fisher-government) are waxing in importance. But it was pointed out above that important shifts are taking place even within these categories. Transformations in the loci of fisher struggles are therefore an important social science research topic.

Investigations of single struggles can focus on structure and drivers of deprivation, but also on dynamics of collective agency. One can therefore ask about the genesis of struggle, such as how problems become defined, leadership emerges, and collective action gains shape. One can subsequently examine the evolution of social struggle, the alliances forged, and the skirmishes and battles engaged in. It is important to realize that struggle may alternate with collaboration, with the ups and downs thereof being an important topic of study. Finally, it is worthwhile considering the outcomes of struggle: who has lost and who has gained in terms of material benefit, recognition, power or otherwise?

Most importantly, social struggles should be understood not as an infrequent phenomena, but as ubiquitous, sometimes far-reaching, and always a core concern of social scientific study. Social struggles in fisheries constitute an expression, and sometimes an engine of wider social change; they can form a momentary disruption, or be part of a wider class struggle. For social scientists, who are generally interested in understanding social transformation, they form an important field of enquiry.

5. The new agenda for social science research

At the inception of this article, dissatisfaction was expressed with the managerial turn of mainstream fisheries social science that has occurred in recent decades,[8] a view shared by Campling and co-authors (2012), who write:

> "Debates in the few social science journals devoted to marine issues, such as Marine Policy and Maritime Studies (MAST), are framed primarily through a policy-orientated lens, where (often undifferentiated) fishing 'communities' are frequently cited as subjects in and for the better 'management' of resources" [17]:178).

From such social science journals, to which we would add Ocean & Coastal Management, one discerns a dominant concern with the social engineering of environmental sustainability, but also a tendency to identify with the concerns of government (while governments are sometimes an important cause of the problems occurring in fisheries). The paper posits that social scientists have their own responsibility in the fisheries field, and that this responsibility includes more attention to the realm of social struggle.

So why are social struggles in fisheries important to study? First of all, they are an important empirical reality – they emerge in all geographical and cultural settings, thereby inviting social science examination. The social sciences study relationships between people as they emerge in different societal fields, and 'struggle' is one dimension such relationships often take. It should therefore not be overlooked. Second, social struggles are of ethical importance – they alert us to tensions and inequalities within society, and to differential experiences of justice and injustice. Social struggles in fisheries often revolve around disputes over the distribution of resources and opportunities – a topic, which, in an age of increasing zero sum games and an alarming surge of socio-economic inequality, requires significantly more attention. Section 3 pointed out that realities of deprivation may be different in the South (where numbers are high and alternative employment is often difficult to come by) than in the North (where there is a push out of fisheries). As their counterparts in the South, fishers in the North have their own issues to deal with, often due to social, political and managerial trends that are now globalizing. Third, social struggles in fisheries are important as they can be the forerunner of violent conflict and a reduced governability of fisheries; an understanding of social struggle and its causes can also assist in preventing further escalation. Fourth, social struggles are of instrumental importance as a perceived lack of fairness, which underlies social struggle, undermines willingness to engage in resource stewardship. Thus, as is argued in a recent study on the effects of social inequality in the fisheries of the Philippines and Papua New Guinea: "fishers may be very aware of problems to do with environmental sustainability and overfishing. However, if fishers are more concerned about who is responsible for these problems and who may be benefiting more from the fishery than they are about sustainability per se, this is likely to pose a significant barrier to implementing fisheries reforms that may affect all fishers equally" [24]:481). Unpacking the nature of social struggles may thus also help to identify the actual drivers of resource health problems.

[8] We wish to note that next to the 'mainstream social science literature' that we highlight in this paper, there has always been a strand of critical social science writing, which has emphasized many of the themes we raise. Older, critical literature includes writings by Anderson and Wadel, Brox, Smith, McCay, Davis and Barrett, Acheson, Alexander, Stirrat, McGoodwin and Durrenberger [1,15,2,20,22,3,46,47,64,66]. More recent social science contributions of this type include two special issues/sections on neoliberalism and small-scale fisheries, edited by Pinkerton and Davis (Marine Policy vol. 61, 2015; and vol 69, 2017); a special issue on the political economy and ecology of capture fisheries, edited by Campling, Havice, and McCall-Howard (Journal of Agrarian Change 12 (2−3)); and a special issue on resilience and adaptation of fishing communities, edited by Phillipson, Symes and Salmi (Sociologia Ruralis 55 (3)).

The reinvigorated agenda for social science in the mainstream fisheries literature builds on older strands of investigation, which have continued in the margins, and is therefore not necessarily new. It consists of broadening the field of study from 'getting the relationship with nature right' to a fuller range of fisher concerns, as they manifest themselves in social struggle, often over issues of distributional justice, be they the distribution of access, wealth, or political control. These are also issues that the two FAO guidelines mentioned earlier take a stand on. Although they address the responsibility of states as key actor, they also call upon civil society organizations and the research community to help enable their implementation around the world. Tenure rights are one of many concerns that the guidelines are highlighting. At the forefront is fisher people's wellbeing in a broad sense. Both guidelines have a progressive agenda, stressing the need for collective action and social transformation, which is likely to meet resistance when brought down from the global to national level. Therefore, their implementation may in itself become a case of social struggle.

In this paper, social struggles were grouped around four trends, which invite further investigation. This agenda obviously includes a wider reference point than government agencies alone as the recipients of scientific advice. In fact, the study of social struggle invites a critical examination of the role of government, as well as of science institutions, in the origin or continuation of social struggles in fisheries. It also begs attention to the role of other actors, such as fisher movements, in achieving societal change. It further demands attention to how transnational forces, discourses and institutions shape conditions for marginalization and struggle at the local level. Finally, it asks for more comparison between social struggles occurring in fisheries, contrasting them with similar events in other societal sectors. The differences in conditions and priorities, as they emerge between the South ('tropical majority') and the North ('temperate minority'), are an urgent entry point. Such research would find inspiration from the analytical frameworks, theories and discourses that occur within social science disciplines centred around concepts like power, equity, social stratification and mobility, gender, ethnicity, legal pluralism and governance, to name a few. Not only will it enable sharper analysis of the often multiple and complex causes and conflicts of social struggles, and help to show the way out of them. Fisheries may also prove to be a productive societal field for theoretical reflection that will help social science disciplines to acquire a deeper understanding of challenges confronting our societies in a time where environmental concerns and resource sustainability have taken centre stage of public policy at all scales, from the level of the local community to the global arena.

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