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DIVYA KARNAD

LOCATING EFFECTIVE COMMONS AND COMMUNITY IN MAHARASHTRA STATE'S FISHERIES, INDIA

By

DIVYA KARNAD

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Kevin St. Martin

And

Bonnie McCay

And approved by

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ABSTRACT OF THE DISSERTATION

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Dissertation Directors:

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This thesis views commons and resource management through a lens of plurality. Through discussions of plural identities, diverse economies and multiple legal systems, this work seeks to challenge the bounds of commons thinking, pushing past static understandings of people, social networks, the environment and resources. Principles created by Elinor Ostrom and colleagues have largely defined the commons management discourse, but my work follows that of St Martin, McCay and Jentoft in realizing the limits to a systems approach to commons research. The commons institution that I study does not fit Ostrom's criteria, and therefore could be assumed to be a failure, except that I have found evidence of key outcomes of successful commons institutions. These include management based on goals of social equity and ecological sustainability, as well as clear examples of the existence of community. Understanding this so-called 'anomalous' institution as successful requires a re-examination of commons theory. Thus my work uses post structural thinking,

influenced by Jean-Luc Nancy and JK Gibson-Graham, to develop a more grounded theory approach to understanding commons management.

My research is based on the case of marine fisheries across two districts of the state of Maharashtra in India. Mismanagement of Indian fisheries could have ripple effects on global seafood availability because India, along with China, contributes 50% of the world's seafood exports to Europe and the United States. Several studies have called for greater state intervention in fisheries (e.g Devaraj and Vivekanandan, 1999), although state fisheries legislation is plagued by large gaps in enforcement and lack of compliance (Bavinck and Johnson, 2008; Karnad et al., 2014). My PhD research describes a alternate solution, by finding evidence of continuing fisheries management by non state actors.

I examine the emergence of commons through fishing issues and conflicts that prompted village discussions and rule-making. I ask how and why people participate in these associations, and whether there is evidence, in these associations, of the type of ethical relationships that could be called community. I probe people's motivation to participate in these communities despite economic and political pressure to follow individualistic, neoliberal practices. In particular I focus on the creation of 'traditional fishermen', a term that is used by fishermen to signify a particular ethical formation that comes into being through practices unrelated to the technology that they use to fish, and to class or caste. I find that successful commons management can exist in culturally heterogeneous, market-linked, technologically advanced societies, which are typically assumed to operate using the logic of neoliberal economics. I identify processes of territoriality, group and consensus based decision making, social

dependence and ostracism as some of the key processes that allow commons and community to come into being. The degree of sophistication and independence from state law with which these institutions operate allows them to be thought of as alternate legal systems. This allows decision making within the local context, in the local language with locally effective punishment, such as social ostracism. From the perspective of government authorities, allowing local bodies to deal with conflicts reduces the requirement of authorities' intervention in issues that often cannot be officially heard due to a lack of appropriate state laws. Thus the continued existence of alternate legal systems is seen as a win-win from both perspectives. Finally, I study challenges to commons management in the form of class distinctions within the fishing community.

DEDICATION

This dissertation is dedicated to:
My late grandmothers
Ahalya Nadkarni and Krishnabai Karnad

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Parts of chapter 1 and 2 are included as a chapter in the book Conservation in the Margins (in press).

A part of Chapter 5 has been published as,

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CHAPTER 1: Introduction

This thesis brings together literature from common property theory, post structural notions of discourse, diverse economies and legal pluralism to develop a particular lens through which to understand the management of marine fisheries in two districts of India. The dominant discourse regarding marine fisheries across the world is that they are being threatened by overfishing (Branch et al., 2011) and that human societies have not been able to manage fisheries in a sustainable manner (e.g. Pauly et al., 2005). The "tragedy" of overexploitation is thought to be related to the open access nature of the sea (Gordon, 1954), and control is assumed to best achieved through state intervention. Consequently, scientists have upheld examples of state fisheries regulations as models of the creation of sustainable fisheries (e.g. Branch et al., 2011) while ignoring critiques of these regulations (e.g. Apostle et al., 2002) and the existence of other successful forms of management at different scales (e.g. Acheson, 1987). States' approaches to managing fisheries have been largely based on the model provided by Hardin (1968), which pointed to the necessity of privatization and market based interventions to manage open access regimes. The critique of this approach is that the imposition of economically neoliberal and rational modes of governance and private property create an ecological transformation that maintains relations of neoliberal rationality (Harvey and Braun, 1996). The debate between advocates of neoliberal solutions such as state sponsored initiatives that privatize access and anthropologists and other social scientists who have documented the variety of non-state initiatives that differently avoid "tragedy" is a central tension as it relates to the governance and regulation (formal and informal) of fisheries globally. My research contributes to this debate by providing evidence of non-state

management occurring within purpotedly state managed fisheries. To demonstrate this, I focus on fisheries in the Third World. Third World fisheries are increasingly the focus of global sustainability studies because overfishing and the growing limitations to access remaining stocks in the First world have pushed corporate harvesters to source much of the world's captured seafood from the Third world (Alder and Sumaila, 2004; Worm et al., 2009). Furthermore, the discourse of rational management is now shifting towards fisheries in developing countries. Despite a lack of quantifiable data, researchers, such as Pauly (2009), hypothesize that marine commons in developing countries are subject to ecological degradation due to highly modified tenure institutions and unregulated economic interventions. This concerns many researchers because it raises serious doubts about the sustainability of the world's seafood supply, as well as issues about environmental justice, common pool resources and community. Consequently, there have been several calls for state interventions in Third World fisheries, based on principles of private property and economic rationality(e.g. Bhathal and Pauly, 2008; Devaraj and Vivekanandan, 1999). This shows a complete lack of recognition that resource dependent people are likely first imperiled by resource scarcity, and may consequently invest in an array of grassroots sustainability initiatives (McCay and Acheson, 1987; Leach et al., 2012). Therefore non-state sustainability initiatives, particularly at local scale, go unrecognized at larger scales of discussion and policy making (Leach et al., 2012). This is not to say that grassroots sustainability is necessarily better than state management, since local initiatives may also struggle to sustain participation and are not always inclusive of ethnic or religious diversity (Bavinck et al, 2013; Feola and Nunes, 2014). However management outside the state may employ locally and culturally relevant methods to achieve authority and compliance, which the state, by

its very nature, is not suited to use (McCay and Acheson, 1987).

My dissertation contributes to the latter literature , by asking how management initiatives are enabled outside the state, at the scale of groups of fishing villages. Arising from previous empirical observations in India, my research challenges dominant understandings of community and commons management (e.g. Ostrom, 1990; Agrawal, 2001; Cox et al., 2010) by revealing that state and neoliberal interventions in fisheries have led to a variety of transformative effects on fisheries. Indeed, in this case, rather than simply imposing universal forms of rationalization and privatization (St Martin, 2007), neo-liberalization actually serves to incite new forms of community-based management. My work addresses a key gap in the commons literature by suggesting that locally developed commons management could occur outside homogenous, egalitarian communities that are more or less insulated from neoliberal markets and external interference. Following Nancy (1991) I view community as emerging from the highlighting rather than masking of social relationships, what Nancy calls "being-in-common". This differs from other studies (e.g. Berkes, 1987) that suggest communities are associated with commonalities, such as belonging to a tribe or similar homogeneous group. Nancy's perspective also deviates from the ideal of co-operative, non-hierarchical communities, as described by Ostrom (1990). Seeing community in messy, everyday interactions calls for a rethinking of fisheries problems, because this concept of community does not follow the predicted trajectory of either open acess and private property-based solutions (Hardin, 1968) or "traditional" rights-based, insulated, local community instutions (Ostrom, 1990; Agrawal, 2001). Instead community is understood as emergent,

through practices of co-operation and unification that bind people together with the resources that they hold in common. My research examines the principles and practices at work that allow people to transcend local difference and produce resource outcomes that are different from those predicted based on neoliberal, capitalist exploitation of the fisheries.

This dissertation, therefore, moves away from standard research on fisheries management, providing new insights into community and commons, rather than merely adding to critiques of existing management strategies (e.g. Beddington et al., 2007). With scientists in India, as elsewhere (e.g. FAO, 2016), increasingly calling for state imposed limits to fisheries due to the expanding role of the market (e.g. Devaraj and Vivekanandan, 1999; Bhathal and Pauly, 2008), highlighting emergent forms of management is necessary to expand the horizon of alternatives.

My research approaches resource management differently, avoiding explanations based on individual utility maximizing economic rationality, a dominant yet much criticized (e.g. St Martin, 2007) theoretical approach to resource management. Instead, I focus on social and economic processes, practices and discourses, to better understand fisheries management. I draw on both standard and post structural perspectives on common property to examine how different practices and formations of community are produced, what types of rules they develop and how participation in these reflects on fisheries management. Through field work on the west coast of India, my research addresses the following research questions:

1. What are the daily practices and discourses that fishermen[1] use to be-in-common?

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1   Those who harvest fish at sea

Do these practices and discourses reveal a concern for environment and community?

In what way do these practices and discourses align with those of the state and the

market? (Chapters 2 and 3)

2. How do these communities of practice evolve resource management regimes? What

management rules emerge and do they reflect a concern for or commitment to

community or environmental well-being? How do such regimes articulate with

standard understandings of common property regimes? (Chapters 3 and 4)

3. What are the bounds of these management regimes? Why do certain fishermen

choose to participate in such forms of management and not others? How do common

property institutions affect those who are not included? (Chapter 5)

Theorizing the fishery

As sites of capitalism, the fisheries of the Ratnagiri and Sindhudurg districts of

Maharashtra state, India are deviant. Milton Friedman's (1962; p 12) perspective of

capitalism is one of competition "through private enterprise operating in a free

market". He perceives this economic freedom as a source of political freedom. The

environment that supports and maintains this form of capitalism requires

individualization, free trade internationally, democratic forms of government and

institutions, reduction in state power and protection of civil freedoms. In the fisheries

of my study, individual utility maximization, as described by neoclassical economics,

is difficult. Arriving in the village of Dandi, a fishing village close to Malvan town in

Sindhudurg district, one is reminded of many other fishing villages across India. The

beach is a 50 – 100 m strip of sand dotted with boats, from 5 m long wooden row

boats to 10 m long fibreglass boats with outboard motors. A few of these boats have

individual owners, the rest are owned by families. Landward of the beach, lined by

coconut trees, are their houses. Some are made of brick and cement, others made of the local lateritic stone with tiled roofs, or thatch, or tin sheets or reinforced concrete roofs. All the fishermen's houses are built on the sand, with only a hedge of thorns or bushes demarcating one compound from the next. The compounds are small, with just enough space for a small chicken coop or a goat. At the centre of the village, the houses are even closer together, with shared walls and roofs. I visit Achrekar's house, which, like all houses in the village, is connected to the electric grid and find his children watching Discovery Channel in Hindi. His brother who lives next door, has come over to help repair a net and discuss the plan for the next morning's fishing. Achrekar owns his own boat, but cannot operate it without at least three other people. Thus his brother, his cousin who lives in the house across the path, and another relative help him on the boat. They work equally so they get equal shares of the catch. He cannot claim special rights through sole ownership of the boat. This is family. Only the first row of houses affords a direct view of the sea, the rest, 25 or so in total, can still get the sea breeze.

Malvan town is one of the region's most well-known towns, a centre for tourism and business in Sindhudurg. Ten kilometers to the south is Deobagh, a former fishing village developed as a tourist destination, and hosting visitors from Mumbai, Pune, and more recently foreign tourists who are spilling over from Goa. Thus Dandi, which is immediately south of Malvan, and north of Deobagh, is not an isolated village that has never been exposed to capitalist enterprise. The fish market used by the fishermen of Dandi is in Malvan. While the government has built a concrete building to serve as the market, the fishermen do not enter it. They auction their catch to the fish sellers (mainly women) on the beach outside the government market every morning. Thus

the auction site can vary slightly from day to day. Catch is brought to the market by boat, as they land on the beach, by truck, from more distant villages in the south, and by autorikshaw. Fish sellers also use these modes of transport to reach the auction site and transport their purchases to inland markets or to the cities of Margao or Mumbai. While the market is so well connected, Dandi itself cannot be reached by road. A small walking path in the sand, which will take two people abreast with difficulty, is all that connects the village to the town.

The evening fish auction at Dandi is conducted slightly south of the main landing beach, but still within the limits of Malvan town, since the fish are not expected to be sold by local vendors in the evening. This auction is exclusively for the trawl fishery, and most of the catch is already promised to export agents who have the trucks ready on the beach, for the catch that is already sorted and crated onboard the vessel and transported directly. Such seafood may be exported to China and Vietnam. The trawl owners stay in Malvan. They employ labour to operate their vessels and rarely go to sea themselves. They are not allowed to live in Dandi because they use fishing gear and employment practices that the Dandi fishermen do not accept.
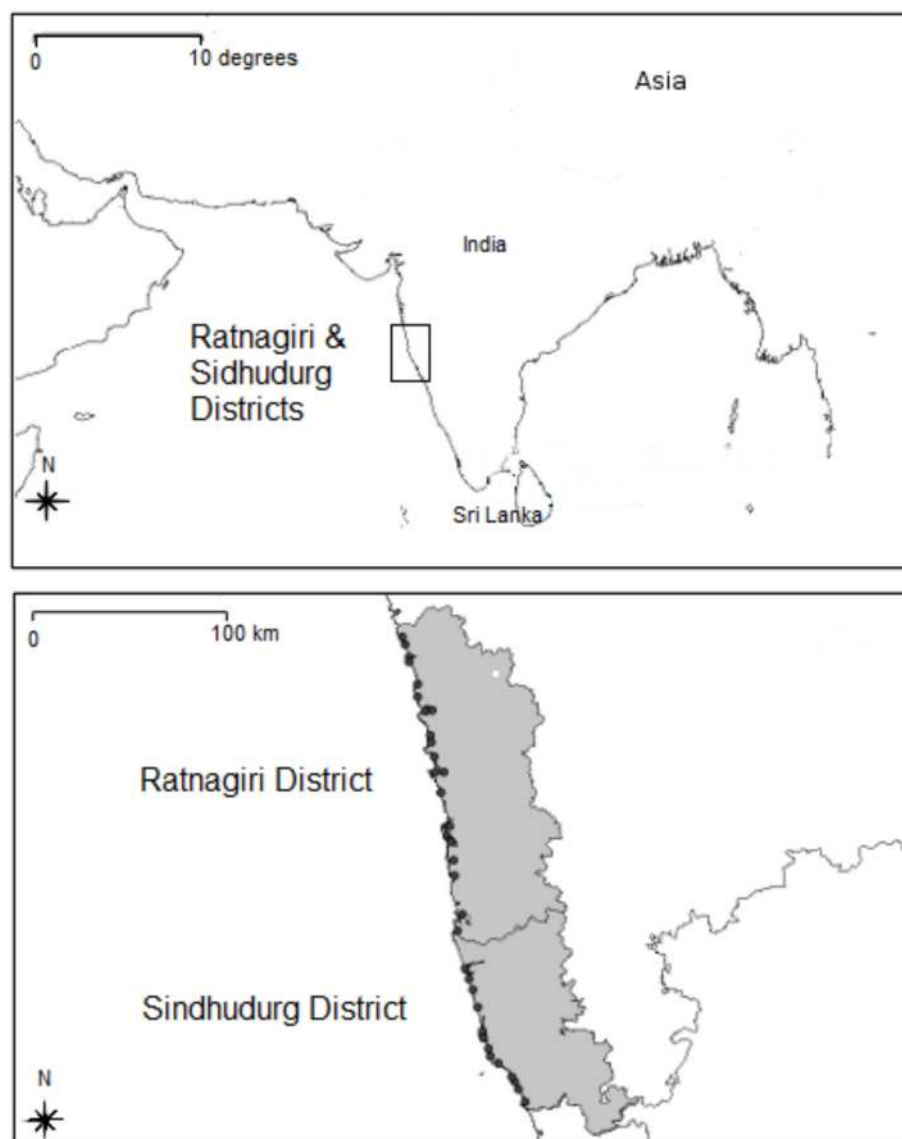
Figure 1: A map of the study area.

The black dots indicate the fishing villages that I visited in the Ratnagiri and Sindhudurg districts, India.

Wives of the Dandi fishermen frequent the evening auction to buy what fish has not already been promised to export agents. They set up shop around the crowd gathered for the auction, laying the fish out on the sand, with a kerosene lamp to combat the fading light and a bucket of water to clean the fish before handing it over to the customer. While the men of Dandi stay away from the trawl fisheries because they do

not accept the ecological and economic impacts of the fishing gear and its associated employment practices, the women of Dandi may engage with trawl vessels for trade. The entanglement of economic practices with social norms, restrictions, and conventions suggests multiple economies at work, a diverse field of economic practices that does not reduce to "the" economy imagined by Friedman (1962) or others, who see all economic activity as part of a single capitalist system.

Dandi is neither socially nor spatially setup solely for the economic inequality associated with neoliberal capitalism. Just like the iceberg representation by Gibson-Graham (2002), aspects of capitalist economic practices are an insignificant mode among many other forms of economic practice here. Class and cultural differences are minimal. All inhabitants are Hindu, from the Gabit caste, and the village does not display signs of great economic inequality. Most of the houses are similar in size, people have access to electricity and television, and most of the children are educated. Houses are quite close to each other and the largest space between houses is the walking path. One side of Dandi is bounded by Malvan town, two other sides are bounded by the sea and a clump of bushes demarcates its fourth boundary. The clump is just 2 -3 metres wide, following which is the next village. Thus splitting this group, which is relatively equal in terms of class, and highly interdependent, into a capital and a labour class will be difficult. Inviting outsiders to become labour is prevented by the lack of space in the village to accommodate more people. Most significant of all, the village only shows signs of life in the mornings from about 3 -4 a.m. until about 2 p.m. and again from 5:30 p.m. till around 9 p.m. These fishermen sleep in the afternoon, and they do not let anything disturb their slumber, whether it is the potential for profits by spending more time at sea, or pesky researchers trying to

interview them. Thus despite participating in competitive markets from which commodities are exported, the pattern of life in Dandi does not accommodate Friedman's thin definition of a capitalist environment. Based on a Marxist reading, capitalism does not occur in Dandi because capitalism is the production of surplus under wage conditions, but there are few wage relationships of employment (Resnick and Wolff, 2012). The boat owner may own boats, which are part of the means of production, but not the fish. Based on a neoclassical reading, capitalism cannot occur in Dandi because individuals cannot redistribute surpluses or profits as they see fit without others participating in that decision. Due to the social restrictions on fishing gear use, the compensations that need to be paid to the temple, and other such restrictions which will be detailed in the following chapters, such freedom is not possible in Dandi.

Not all villages in Sindhudurg and Ratnagiri are the same. Some have taken to accommodating migrant labour because they have more space, or because there is a road connecting their village to the National Highway, which opens up more possibilities for trade. Yet, a range non-capitalist practices continue, such as choosing comfort over profit, or co-owning vessels, or sharing labour responsibilities with family. The question is whether a diverse economy could produce the kinds of resource scarcity and resource management scenarios that are predicted by fisheries scientists, based on a neoclassical understanding of fishing.

Understanding these complex fisheries requires bringing to bear new theoretical perspectives on economy, power, and resource management. In analyzing these diverse fisheries, I employ post structural perspectives on economy through the lens

of diverse-economies (Gibson-Graham, 2006) and on commons theory (Nancy, 1991; Gibson-Graham et al., 2016), as well as new cultural perspectives on law (von BendaBeckmann et al., 2012). I discuss in detail each of these aspects of the fisheries in separate chapters.

Re-envisioning the commons

The dominant discourse about the commons is one of decline that arises from the overexploitation of resources. The idea of decline or depletion as a resource management problem emerged in the 19th and 20th century . Agrawal (2005) describes this idea as associated with colonial practices of forestry in India, where forests and their timber were claimed by the colonial state. Consequently every act of extraction from the forest was positioned as a depletion that needed to be recorded and managed. Ciriacy-Wantrup and Bishop (1975) also associate the depletion of resources from common property with inventorying, monitoring. The development of theories for resource management, including common property theory emerged from an understanding of scarcity of resources (DeAngelis and Harvie, 2014). This is a particular view associated with capitalist economics, made most famous by Garett Hardin (1968) in his paper "The Tragedy of the Commons".

Prior to Hardin, common property theory while discussing the tension between individual utility maximers in multiple user resource extraction systems operationalized solutions through capitalist economics, but still acknowledged other forms of management. Studies such as Gordon's (1954), which claimed that fisheries are subject to over utilization, followed Malthusian arguments to underscore the need

for restrictions on fishing. Even as he produced a problem of finding "optimal" resource extraction, and then suggested solutions based on neoclassical economics, Gordon recognized the occurrence of "group tenure". However, he associated commonly held resource management systems with "traditional", hunter-gatherer societies and, based on the technologies of inventorying and monitoring, recommended fish-size and catch-size limits for sustainable fisheries in "modern society." He also introduced the idea of optimal fishing to maximize the net economic yield. His model continues to form the basis of modern fisheries management in most developed countries.

Gordon identifies the solution to this tragedy as a bio-economic equilibrium that achieves sustainability and prescribes limiting individual action as the means to achieve this solution. This is also the assumption in Hardin's (1968) influential paper, in which he writes:

> "*Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. Such an arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the numbers of both man and beast well below the carrying capacity of the land. Finally, however, comes the day of reckoning, that is, the day when the long-desired goal of social stability becomes a reality. At this point, the inherent logic of the commons remorselessly generates tragedy.*" (Hardin, 1968; p *1244)*

Hardin adds the measures of enclosure and privatization as a solution to the tragedy (DeAngelis and Harvie, 2014). Hardin's 'Tragedy of the Commons' has remained influential in both science (e.g. Rankin et al., 2007; Porcasi et al., 2000; Tornell and Velasco, 1992) and policy (e.g. Engel and Saleska, 2005). Influenced by Hardin's paper, the scientific and political community often conflated common property with "everybody's property is nobody's property" (Ciriacy-Wantrup and Bishop, 1975).

Critiques to the "Tragedy of the Commons" identified the major gaps in the tragedy argument as a failure to acknowledge history or the political, economic and cultural context of property relations at local scales or middle range scales (Agrawal, 2001; McCay and Acheson, 1987; Ostrom, 1990).The most famous critique of Hardin's work has been the work of Elinor Ostrom (1986; 1987; 1990; 2000) whose critique shares a concept of individual rationality with neoclassical economics but which comes to a very different understanding of the commons and different prescriptions for its maintenance. Her theory follows a systems approach with a focus on individuals coming together co-operatively to form institutions to manage resources. Ostrom's work holds true to the idea of optimal solutions, but her argument differs from the economic arguments of the Malthusian tragedy because she includes the possibility of locally developed common property-rights and she considers that communal ownership can be an optimal solution for some types of commons problems. Thus her approach is economic, but she sees institutional arrangements as integral rather than external to economic functioning. McCay and Jentoft (1998) classify this approach as modernist where the individualistic nature of human interaction is replaced by co-operation and there is a greater emphasis on social interaction. Ostrom's work also collates general principles from the multitude of case studies conducted on this subject (Agrawal, 2001). She develops principles for successful (i.e. sustainably managed over time) commons, stemming from the view that commons problems can be understood as complex systems. Such comparative research is useful to isolate variables associated with effective commons management (Agrawal, 2001), and subsequent research has added refined and extended Ostrom's original list. For e.g. Cox et al. (2010) reformulated the design principles to include three additional hypotheses. Their principles are as follows:

1)   a) Clear boundaries between users and non-users of the commons

1) b) Clear boundaries to define the resource

2)   a) Appropriation and provision rules should be congruent to local social-ecological conditions

2) b) Benefits to users should outweigh costs that are determined by compliance with the above rules

3) Most CPR users can participate in decision making – Collective choice

4) a) Monitors/ Guards who monitor compliance with rules are accountable to users

4) b) The condition of the resource is also monitored

5) Graduated sanctions

6) Low cost conflict resolution mechanisms

7) Non-interference in local rules/institutions (or co-operation) by external authorities/institutions

8) All activities are organized in a nested design.

Cox et al. (2010) tested these design principles with 91 case studies and found high variability in the case studies adherence to principles, and only moderate support for the design principles. This suggests that Ostrom's principles should be treated as a starting point in a study of the commons and do not fully describe successful common property regimes. Each new examination of case studies could highlight factors that were not considered in Ostrom's original principles, and might be included as new variables in a reworking of these principles.

Critiques of Ostrom's work come from anthropologists, like Agrawal (2007), who point out that scholars of this approach never seem to choose examples from atypical

cases that do not fit stereotypical definitions of common property. For instance, they ignore informal common property relations, by which I mean those relations and rights that are not legally recognized but still occur. Studies, like that of St. Martin (2001), who identifies communities among New England fishermen (who have been well connected with capitalist markets and politics) provide evidence to critique naturalized assumptions of individual economic rationality. Jentoft (2004) suggests that such cases appear atypical because institutions are so narrowly defined. He recommends broadening the concept to include the social and cultural context of management, with an emphasis on social processes and governance. Agrawal (2007) also points out that even in cases where less complex or contentious generalized hypotheses about commons management could be generated, such as those related to the functioning of institutions, actually translating them back into real world management becomes difficult due to the inability to translate terms from the abstract statement into the local context.

My work also takes cognizance of the philosophical critiques to Ostrom's "thin critique" (McCay and Jentoft, 1998) of the tragedy of the commons. Ostrom's approach continues to view issues surrounding common property as a scarcity problem (DeAngelis and Harvie, 2014). Scholars within this approach recognize the need to go beyond notions of "stable communities" and that ideal conditions for commons governance are rare (e.g. Dietz et al., 2003). Dawney et al. (2015) also criticize this approach for separating the commons from the people who produce it because such a separation does not give room for the commons and the subject to be mutually constitutive. McCay and Jentoft (1998) suggest that this approach, despite its emphasis on co-operation, also subscribes to methodological individualism and

uses rational action as the frame of analysis.

In my work, Ostrom's design principles for effective commons institutions serve as a useful point of comparison, to demonstrate what becomes visible through the design approach and what is made visible through an approach that, instead, foregrounds community and commons practices and processes. The design principles are also focused on the arrangements and information necessary to make decisions about resources (Agrawal, 2007), a focus that I retain, although not exclusively, in my work.

My work, instead, springboards from critiques of Ostrom, which suggest that we focus on communities themselves rather than resources and the techniques of their utilization. McCay and Acheson (1987) emphasize the need to understand the context of relationships of community through local ecological knowledge, culture, politics and economics. McCay and Jentoft (1998) suggest that community, rather than individual rational actors, makes, maintains and can destroy commons. The social processes of community management cannot simply be reduced to aggregates of individual actions (methodological individualism) (McCay, 2000). These authors demonstrate that generalizable results can arise from empirical, contextually sensitive studies. Acheson's (1987) research on the 'lobster fiefs' in Maine allowed him to generate a hypothesis about collective action and commons management arising when exclusive areas are too small for an individual to sustain him/herself, when the resource requires several different and widely spread types of habitat or environmental conditions and in communities where arguments in favor of equity hold a lot of weight, territories are often held in common. Another point of concern in the anthropologists' studies on commons management is to identify the specific

bundle of rights provided in each case. The work of these authors are concerned with the idea of property. As Macpherson (1978, 3) put it, *"Property* [is] *a right, not a thing"*. Therefore authors like McCay (1996, 2000, 2002), McCay and Acheson (1987), Jentoft () and others have carefully defined which types of rights are provided to whom. Broadly, they discuss the following types of property arrangements, each of which provide different types of rights.

1) Private property: Provides the absolute right to exclude to an individual "owner", the right of exclusive access, continued use and withdrawal without limits, the right to transfer these rights to another individual or entity.

2) Common property: Provides the right to exclude to a group, rights to member access, continued use and withdrawal within socially determined limits. There are generally no transfer rights associated with common property.

3) State/Corporate property: Here rights are provided in public interest, but are held by the state or corporation to allow access, use, withdrawal and to exclude. The occurrence of transfer rights may vary from nation to nation depending on local laws.

My work intersects with the discussion on property rights since I describe conflicts surrounding the right to exclude and rights of access. My work also demonstrates that the fishing commons is defined by the existence of limited withdrawal and use rights, as well as the absence of a right to transfer these property rights. However, focusing on bundles of rights suggests a separation between community and commons, with community relating to commons only through particular bundles of rights. My preliminary research seemed to suggest the existence of other ways in which relationships between people and resources were being created.

Although its focus on the local and small scale suggests that proponents of this approach ignore larger political and economic forces, such an approach is useful for building grounded theory. Still, despite recognizing the dynamic nature of community (McCay and Jentoft, 1998) authors who use this approach (e.g. Carrier and Carrier, 1989; Cordell, 1989; Jentoft and McCay, 1995; Kurien, 1995; McCay and Acheson, 1987) do not intensely interrogate their ideas of community or the commons, allowing rigidity to seep into the language they use to describe these relations. Li (1996) talks about Berkes having a view of traditional rules as stationary through time. Agrawal (2007) identifies how the meanings of terms such as local and rule can be contentious and need to be constantly negotiated by participants (and non-participants) in the commons institution. To address this critique I turn to a different theorization of community, one by the philosopher Jean-Luc Nancy.

Recognizing community

The philosopher Jean-Luc Nancy (1991) writes that the state of human existence itself is relational, meaning that one is always part of community. Nancy provides two contributions that influence my understanding of community. First, his ontological assertion is that to be is to be-in-common. He rejects the possibility of total individuality, saying we cannot be ontologically individual, separate, singular, ego. He finds the state of being is always in between, striving for absoluteness of community. Nancy rejects the possibility of breakdown of community, stating that the loss of community in the modern era is merely a romantic discourse. To be an individual involves masking a mix of social relations, a process that must be enacted constantly (Gudeman, 2008). Therefore methodological individualism cannot be used to explain the behaviour of participants in community.

Second, Nancy cautions against equating community with commonality. Much of

common property literature suggests that to see successful commons management, we

have to look for factors like shared values, collective action and shared knowledge.

The cultural critique of this commonality based understanding of the commons is that

there are certain underlying ethical principles that help keep communities and

commons alive (McCay and Jentoft, 1998). But Nancy (1991) goes further, to say that

a discourse of commonality exists to create what he calls a "mythical community". He

sees the origin of this myth in the normative Christian idea of communion i.e. that

community ought to be a positive experience that emerges from sameness. Every time

this myth is not experienced, it is understood as the loss or death of community.

Nancy suggests that such a community built on principles of sameness will result in

exclusions and marginalization (such as those associated with Fascism). Nancy's idea

of community is based on being-in-common, which suggests relations and practices of

mutual care despite differences, despite not being the same. Thus Nancy's theory of

community lends itself well to my research in a heterogeneous and diverse fishing

society.

Neo-Marxists see community as continuously existing, just as Nancy does. They

differ from Nancy in seeing community as constantly emerging in reaction to and as a

form of resistance to the power of capitalism and neoliberalism (Dawney et al., 2015).

Resistance, therefore, can be thought of as a tool that unmasks relations of

interdependence, and in doing so creates a new site for the operation of power. This

helps us move away from static understandings of community, to see community as

continuously changing in response to every innovation that is introduced and every

new value that is created (Gudeman and Rivera, 2002). In my work, I follow St Martin (2007) in seeing community as emerging in response to modern processes such as law and capitalist economics.

Notions of community as emergent and dynamic, suggest that community is easier to experience than to define. But community becomes visible through the practices that those in the community perform. "Commons are materialized through every day practices that respond to multiple wants and needs, and which are negotiated and decided upon collectively" (Dawney et al., 2015; p 9). Thus commons are also continuously emergent through and are a part of the multiple relationships that constitute community. Through a recognition of community, as continuously emerging, and its practices, this thesis contributes to the "project of making visible actually existing commons" (ibid).

A process of the commons

Theory on community has moved from static representations to processes. Similarly, theory of the commons has also shifted towards an understanding of commons as an active process (Linebaugh, 2008). The term "commoning" denotes the act(s) of (re)producing commons (ibid.). Since the early 2000s practices of commoning have captured intellectual and political thought (Dawney et al., 2015). Recent literature on commoning has gone past a focus on resources and begun to be understood as spatio-temporal and ethical formations that resist privatization and individualization (ibid). JK Gibson-Graham (2006) take commoning a step further by linking it to economic relations, taking steps towards developing a new economic theory of diverse and community economies. Gibson-Graham et al. (2016) use the word commoning to

describe ethical, non-capitalist practices that maintain ecology, resources, relationships or networks differently than capitalism.

Gibson-Graham build on Nancy's (1991) concept of "being-in-common" to discuss ethical practices that can produce and sustain commons as a form of continuous resistance to neoliberal capitalism. Influenced by post-structural ideas of plurality and feminist critiques of dominance, they critique economic discourse for representing capitalism as unitary, singular and dominant. Such a discourse affects our imaginaries of economic difference, where even difference is understood relative to capitalism. Whereas, they suggest that the domination of capitalist discourse merely masks other types of economic relations (Fig 2).

Figure 2: Gibson-Graham's (2002) iceberg representation of the economy.
Source: http://agentsofalternatives.com/?p=2604

Gibson-Graham et al. (2016) find economic relations that cannot even be captured using the language of markets. However many of these undefined inter-relations, such as unpaid housework by women, keep the capitalist economy afloat. This led them to propose the idea of a "diverse economy", where economic activities are conceived diverse field of different modes rather than with narrow capitalocentric definitions (Gibson-Graham, 2006). This is relevant to the commons, because Gibson-Graham foreground community economies as producing the types of relations that can productively and co-operatively resist capitalism.

Commoning and community economies are assumed to be located only in peripheral domains or spaces, because they are difficult to visualize within a capitalocentric framework (Gibson-Graham et al., 2016). The first problem lies with the language of capitalist discourse. Diverse economies scholars, such as St. Martin (2005) point to the discourse as accepting non-capitalist practices in the Third World, at a local scale, but not in the First World. Even within the Third World, domains that have been actively developed by the government and contribute to the Gross Domestic Product, such as fishing, are seen as capitalist enterprises that induce scarcity (e.g. Bhathal and Pauly, 2009; Lobo et al., 2010), with remnants of 'traditional practice' that are slowly dying out. These authors continue to operate within a capitalocentric frame. A diverse economies reading of Indian fisheries opens the field up to a range of economic possibilities, practices and trajectories, allowing for the existence of capitalist economic relations as one of several types of economic relations. The second problem with visualizing commoning is due to its continuously dynamic and emerging nature. "Commoning is a messy and fragmented process in which transformation takes place with different rhythms over a long timeframe" (Gibson-Graham et al., 2016; p 20).

This means that commoning cannot be generalized to distil principles. Instead a careful revelation of commoning is required in each case, identifying the people, actions, non-human actors and processes involved. With respect to human-environment or human and non-human resource relations, the focus of my study, simply measuring resources and trying to limit human action in relation to these measurements would destroy all that is common (Dawney et al., 2015). One cannot separate the practices of commoning from the commons.

In retaining a focus on resources, my work uses the concept of diverse economies to relate being-in-common to the traditional resource management understanding of commons. Similarly I also employ another theoretical perspective that enables commoning; namely legal pluralism. Just as capitalism creates economic subjects who cannot see or imagine outside this framework (Callon, 1998), "law both assumes and constitutes subjectivity" (Sarat, 1995; p 615). Pluralistic readings of law allow us to look beyond the discourse of law as autonomous and independent of politics and society (Barzilai, 2008). Griffiths (1986) sees legal pluralism as a source of conflicts. For instance, backwardness is a legally mandated identity foisted upon fishermen from many fishing castes in India. The backwardness narrative can be powerfully reversed through the application of alternate, customary law that allows fishermen to constitute their identities differently. Elevation of a system of customs into an alternate law gives those customs power to challenge existing power structures (Griffiths, 1986). A post-structural understanding of law, allows us to look beyond the legislation that enables the hegemonic discourse of capitalism. Customary law has historically dealt with group rights in India, while state law has created and maintained individual and private property to enable capitalist expansion (Fullerton

Joireman, 2006). The co-existence of multiple practices of property, indicates not only

multiple legal systems in force, but also a diverse economy. Thus property relations

become a way to visualize commoning.

Just like the sidelining of diversity in economics, demonstrated by St. Martin (2005),

legal pluralism is similarly understood as occurring only in certain post-colonial Third

World contexts (Merry, 1988). However, further research shows the occurrence of

legal pluralism in both nations representing advanced capitalism (Merry, 1988) and

those representing communism (Pavlovskaya, 2013). The ubiquity of legal pluralism

bears testament to the diversity of economic and social practices globally, leaving

room for commoning in imaginaries across the political and economic spectrum.

In India, pluralism is even encoded into the nation's constitution. The Indian

constitution is a hybrid document that recognizes the existence of alternate laws in

relation to some aspects of social and family life (Dhavan, 1992). Bavinck and Gupta

(2014) judge this type of pluralism to be weak, compared to one where legal systems

are not formally recognized. This is because including pluralism in written legislation

prevents law from being continuously constituted and reconstituted in real time

(Kleinhans and MacDonald, 1997). The power of alternate legal systems, therefore

arises from somewhere other than the state, which is typically associated with

enforcing legislation. Barzilai (2008) identifies the source of power for alternate legal

systems as collectivities (what he calls identity groups) and communities. "Legal

pluralism has explicated how identity practices, traditions, and various moralities

constitute informal laws, and validate, challenge and deconstruct formal state law in

various historical contexts" (Barzilai, 2008; p 401). Thus legal pluralism, according to

him is a political project arising from collective action. Plural visions of law thus contribute to the project of commoning.

Understanding the Indian marine commons

India's fisheries are not amenable to Hardin's suggestion of state control or state restrictions on individual action. The authority of state fisheries legislation in India is undermined in several ways. First, the Indian Fisheries Act (1897) devolves power to make fishing law to the six coastal states within territorial waters[2], while retaining control over fishing in the rest of the EEZ. The State Fishing Acts and their subsequent modifications are not completely in synchrony with each other. For instance, the state of Gujarat, to the north of Maharashtra and Goa, to the south, join Maharashtra in imposing a mechanized fishing ban of 67 days during the monsoon (effective from 1989-90). Neighbouring territories of Daman & Diu ban fishing for 75 days and the state of Karnataka, further to the south, imposes a ban of 57 days. Since there is no rule preventing fishing boats from neighboring states entering another Indian state's waters, enforcement of the exact duration of these fishing bans, by state fisheries departments, becomes difficult. Similarly differences between the states with respect to legally permitted fishing gear and fishing practices (such as fishing at night) create chaos in practice, as fisher folk from neighboring states can claim ignorance of these specific state rules. The assumption that state control will create a totalitarian and uniform management system is overturned by the practice of state fisheries legislation in India.

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2   The Territorial Waters Continental Shelf –Exclusive Economic Zone and Other Maritime Zones
      Act (1976) designates the area within 12 nautical miles of the high tide line as territorial waters.

In addition to the fisheries Acts there are sixteen other national Acts, as well as several notifications and policies to govern marine resource use in India. These Acts have separate enforcement bodies, for instance the state fisheries Acts are enforced by the state Fisheries Departments and the Water (Prevention & Control of Pollution) Act (1974)[3] is enforced by state pollution control boards. The close overlap in regulations and multiple economic interests' results in the interests of fisher folk being sidelined. The consequence of so much legislation is that while marine ecosystems are theoretically well regulated, confusion ensues in practice. Boundaries between regulatory acts are fuzzy, and the different government bodies empowered by each law are left to make subjective interpretations about their jurisdiction. Hazy legal boundaries make for hazy physical ones. Even if the law were to be clear, logistical constraints such as not having enough time or resources to monitor illegal fishing combined with practical problems such as lack of sufficient training about marine activities prohibited under all these laws, compromises the fisher folk's perceptions about the state's authority.

The repercussion of this disconnect between state action and fishermen's lived reality is becomes visible in the tension between state and fisher folk's fisheries management, discussed extensively in the literature (e.g. Bavinck, 1996; 2001; 2003; McGregor et al., 2016; Thomson and Gray, 2009). The apparent absence of the state in fisheries governance has created an obstacle to building trust across these scales of governance (Bavinck and Johnson, 2008). Compliance with state regulations is low (Karnad et al., 2014). Despite this, the fisheries department's approach to management has not been

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3 This Act also permits the deposition of materials along the water's edge for the purpose of reclaiming land or protecting the coastline, a rule that has been used to legally displace fishermen in the name of coastal development.

through privatization. Instead they have recommended solutions like closed seasons,

closed areas and gear restrictions (Bavinck et al., 2015). Even though solutions may

be well intentioned, the implementation of policy is often foiled by bureaucratic

process and ritual (Gupta, 2012). For instance, in 2015 I attended a meeting on sea

turtle conservation on the East coast of India, which was convened to consult fisher

folk about ways to conserve marine species protected by the Indian Wildlife

(Protection) Act (1972). Present in the room were representatives from the Forest

Department, Fisheries Department, Port Authority, Central Marine Fisheries Research

Institute, Central Institute of Fisheries Technology, Indian Navy, Indian Coast Guard,

Marine Police, Non-Governmental Organizations (NGOs), independent researchers

including myself, and representatives from fisher folk (fishers). It had all the makings

of a successful and inclusive decision making process. However, a certain 'structural

violence' (Gupta, 2012) marked the nature of the proceedings. By this I mean the

naturalized hierarchy of government officials and celebrities gaining access to the

stage and the microphones during the meeting, while everyone else was positioned as

an audience. The colonial approach of treating fishermen as outsiders or the 'other'

was manifested in this meeting through the use of the English language, a language

common to everyone other than the fishers, who neither spoke nor understood the

proceedings. Occasional translations into the regional language were hurried

summaries that tested the patience of the VIPs on stage. The fishers, despite being

physically present, were not only left out of the proceedings, they eventually left the

meeting. By the second day of the three day event, there was no representation from

the fisher folk.

The divide between fisher folk and the government is also playing out in fishing villages through conflicts with the fisheries department over the management of resources (e.g. Bavinck, 1998; Lobe and Berkes, 2004). Kurien (2000) links this tension to the modernization project, instituted by the Indian government to promote more 'efficient' fishing techniques, to make fishermen's lives easier while contributing to the national treasury by catching seafood for export. The technology transfer through the Indo-Norwegian Fisheries Community Development project, which brought Norwegian technical aid, vessels and machinery to the Kerala coast in 1953 (Kurien, 1985) was based on the presumption that existing small scale fishing was primitive (Kurien, 2000). Historically, the fishery was defined by non-mechanized, "artisanal" fishing. Kurian and Vijayan (1995: p 1781) describe the pre-project fishery as, "The overall picture... was one of abundant fish availability in the inshore waters, easily accessible to the large number of artisanal fishermen". With the help of the state government, the project trained two fishing villages north of Kollam, Kerala, to operate trawl nets, in order to take advantage of the newly discovered penaied prawn fishery. This technology then spread to the rest of the country, with the help of loans and subsidies offered by the National Co-operative Development Corporation[4] (Karnad et al., 2014). This "blue revolution" was a turning point in India's fishing history (Bavinck and Johnson, 2008; Kurien, 2003). The Norwegian project was living up to the first of its objectives; to increase production by modifying fishing methods. Ironically, it did so by destroying the social and ecological fabric of fishing. Kurien (2000) writes of small-scale fishermen needing several different types of fishing gear to catch different species throughout the year. Trawl-fishing, he says, wiped out this detailed knowledge, and the skills involved in net-making, net-laying

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4 http://www.ncdc.in/activities_files/Page481.htm

and spotting fish schools. Thomson (2009) assesses that most Indian fisheries are now under complex management systems involving state, community and the market, and open access situations only occur when all three have failed. Lobo et al. (2010) identify this sort of failure in the trawl fishing industry of Tamil Nadu, which has resorted to selling fisheries bycatch as fish meal for animal feed, in order to maintain the profitability of their depleted fishery, rather than install bycatch excluder devices as required by law.

Post technology transfer, fishermen began to be distinguished into two groups in the literature, understood in binary terms as; mechanized/artisanal, modern/traditional and trawl/small-scale fishermen (e.g. Kurien, 2000; McGregor et al., 2016; Thomson and Gray, 2009). These binaries have fed into narratives of the artisanal as being small-scale, traditional and sustainable, with cultural ties to fishing, extensive social network in the fisheries and a sense of community. The mechanized or trawl fisherman is conceived as the opposite: individualistic, profit-oriented, neoliberal and modern. Only certain groups that met the characteristics of artisanal were seen as capable of creating commons (e.g. D'Souza and Nagendra, 2001; Kurien, 2005). As these characterizations become more rigid the politics of fisher identity ensure that 'traditional' and 'modern' fishermen find fewer ways to co-operate and fewer platforms of commonality. Yet research that continues to make these distinctions has also identified that fishermen are creating new institutions and initiatives in reaction to the adverse impacts of mechanized fishing. Kurien (2000) describes the institutions that have emerged around the creation and maintenance of artificial reefs near Thiruvananthapuram, Kerala. Lobe and Berkes (2004) describe institutions that emerged to regulate shrimp harvests after shrimp began to be exported and profits rose. Thomson (2009) describes the rise of local claims to fishing rights and the

visible manifestation of community in the wake of a government supported intervention in local fishing grounds. Bavinck et al. (2015) describe mechanized boat owners associations that regulate some aspects of fishing, using rules that respect to equity of access and maintain rights to exclusion. In the words of McGregor et al. (2016; p 94) "Modernization has not swept away traditional social and political institutions in coastal communities, rather they survive despite and because of modernization". Fishers who perceive themselves as victims of modernization have organized because the government has not stepped in to help them (Bavinck and Johnson, 2008).

While some smaller fisheries organizations have been overwhelmed and destroyed due to lack of support (Thomson, 2009), others have been successful at creating support (Bavinck, 2003). Fisheries department allows fishermen to manage their own affairs even if contradictory to government policy because official enforcement is poor and often rules that people want (e.g. no cross border fishing) do not exist (Bavinck, 2001).

Methods

I conducted research in the Sindhudurg and Ratnagiri districts of Maharashtra from Jan 2014 to May 2015. This was in addition to my pre-dissertation research, conducted there in the spring of 2011, the summer of 2012 and the summer of 2013. I addressed my research questions by visiting and staying in about 30 villages (Table 1) across about 350 km of coastline in the Ratnagiri and Sindhudurg districts (Figure 1).

Sindhudurg	Ratnagiri

Devgad	Kelus
Mithbhav	Anjarle*
Kunkeshwar	Pajpandhari*
Achra*	Harnai*
Tondavali*	Murud
Sarjekot	Dabhol*
Chiwla*	Veldur*
Malvan*	Guhagar
Wayiri	Palshet
Tarkarli*	Dapoli
Devbag*	Ratnagiri*
Nivati	Mirkarwadi*
Kelus	Vijaygad
Vengurla*	Jaigad
Mooth*	Ganapatipule
Mochemad*	Wayangani*
Shiroda	Ganeshgule*
Redi	Purnagad
	Ambolgad

Table 1: List of villages included in the study. *indicates villages that are recognized as a single village by some people and as separate by others.

During my pre-dissertation research I had visited some of the larger fish landing centers, such as Malvan, Vengurla, Ratnagiri and Harnai. During the preliminary discussions that I had with fishermen at that time, it appeared that they strongly associated with village, identifying people by village name as much as by the person's name. While village associations seemed to be important on land, I later found that these village associations did not hold much weight in the water. For instance fishing boats owned by people from Malvan may be docked in Sarjekot. In order to be able to explain how associations are made, if not by village, I chose to conduct interviews in over 30 villages across the two districts to get the widest possible spread possible.

My choice of field site is influenced by my previous research experience in this region. Working with an interdisciplinary team of researchers who focus on various aspects of regional fisheries, I established a research base in the area in 2010. The villages and towns in this region have also been politically active, forming fisheries co-operatives and taking community decisions outside the mandate of state fisheries legislation. In the preliminary phase I spent two weeks travelling through the Ratnagiri and Sindhudurg districst of Maharashtra, to reconnect with people and places there. While living with two families I used the help of other researchers, who had local contacts, to meet people and identify key informants. My preliminary research revealed these fishermen to be accessible and amenable to discussing their fishing practices. They were also interested in understanding and seeing the results from the research.

The headquarters of Ratnagiri district is Ratnagiri town, and of Sindhudurg district is Malvan town. Over a decade ago, Ratnagiri district supported 67,615 fishermen, and Sindhudurg district had 25,375 fishermen (Government of Maharashtra, 2003). The fishing gears used range from traditional drag nets (rampan) to more modern purse-seines. The coastline of the Ratnagiri and Sindhudurg districts are connected to two large markets for fish trade; namely Mumbai, Maharashtra and Madgaon, Goa, via the National Highway 17 and state highway MSH 04. The National Highway runs quite a bit inland, and the state highway is badly maintained. As a result, marine exports from places, other than large ports, like Ratnagiri – Mirkarwada, are relatively less well organized and occur at a small scale. The main fishing castes in the Ratnagiri are Hindus from the Kharvi caste, as well as Muslims, like the Memons who originate from Gujarat, Hindu and Muslim fishers who originate from Andhra and Catholics

who originate from Goa. The fishing community in Sindhudurg district is relatively more homogenous, consisting primarily of Hindus from the Ghabit caste, although there are small numbers of Catholics and Muslims. In addition some members of non-fishing castes have begun to enter into the fishery through capital investments in fishing vessels. Many of these vessels are staffed by migrant labour.

I use a mixed methods approach involving semi structured, open ended interviews, a semi-structured survey, participant observations and follow up interviews. My choice of method is influenced both by the theoretical approaches that I followed and by the limits of what was possible in the field. Qualitative methods have a strong association with critical, feminist geography (Crang, 2002), the influence behind the theory of diverse economies. As a consequence of this association, qualitative research has been labeled 'soft', and studies have often used mixed methods as a political project to gain attention (ibid.). I was limited in the extent to which I could rely on any one approach, a point that I will discuss in detail below, as well as the steps I took to overcome these limitations. The detailed description of the methods I used are below:

1) Participant observations: To answer my first question about daily practices of being-in-common and my second question about the evolution and form of commons management in the Ratnagiri and Sindhudurg districts, I conducted participant observations in 5 villages. McCay and Jentoft (1998) suggest an ethnographic approach to draw out community with its social and cultural processes. Ethnography is one of the best methods to study processes and meanings, by exploring lived experiences through immersive participant observations (Herbert, 2000). It enables observations of what people do, in addition to what they say, and allows insights to

emerge inductively, from progressive socialization (ibid.). Ethnography is typically conducted through participant observations, and I used this method to observe on-shore fisheries management at fishing decision making meetings, in markets and other public spaces, such as the beach. My ability to conduct an immersive study was limited, however, by the gendered landscape of fishing in India (as elsewhere). The male experience of fishing is described by Hoeppe (2005) among fishermen in the Indian state of Kerala, where the sea is always considered female and referred to as the mother. Bavinck (2015) and Subramanian (2009) similarly describe a mother goddess associated with the sea, among fishermen in the state of Tamil Nadu. Hoeppe (2005) goes on to describe the likening of seasonal patterns of the sea and the monsoons to the physiological patterns of the female body, and the jealousy that the sea mother will feel, if a woman is aboard a fishing vessel. The superstition involves revenge and retribution by the jealous sea mother and prevents women from entry on fishing vessels, all across India. Only in one case did I come across a woman who went fishing by boat, because it was a row boat that stayed in the shallows, and her husband could not find anyone else to help him. This gendered relationship to the sea resulted in my inability to participate in the activity that dominates the lived experience of fishermen. My participant observations were limited to the interactions and activities that occurred on-shore.

I conducted participant observations, opportunistically for one and half years, beginning in January 2014. I used these observations to develop an idea of the social networks and divisions, local issues of conflict and how they were dealt with, the specifics forms of local management as visualized through teasing about rule breaking and more serious forms of public embarrassment. I observed the actions through

which fishermen performed identities, by choosing a fish market to sell in, by choosing where they stay and how they live. However, some of these observations were incomplete. I sometimes missed the event that precipitated a decision making meeting, because it was something that happened at sea, or happened while I was travelling to a different village. To fill in the details that I may have missed, due to not being at that location during a particular event, or not being allowed on board vessels to observe preceding and following events, I used other methods.

2) Interviews: Gaps in my participant observations, and spaces that I was not permitted to enter as a participant observer were bridged by using semi-structured interviews. To answer my first two questions about the discourses associated with fishing and community, I interviewed fishermen, fisheries department officials and had unstructured interviews with members from Non-Government Organizations (NGOs), who work on fisheries. Interviews with fishermen were set in 10 fishing villages, spread across the two districts. I acquired informed consent through the use of locally relevant metaphors and idioms to explain the nature of this research and that their involvement was completely voluntary, unpaid and anonymous. They were allowed to see when I began voice recording and when I stopped, as well as what I was writing. In particular, when noting identifying information, I used the local script *(Devanagiri)*, so they could read (if literate) what information I had recorded.

Elwood and Martin (2000) discuss the importance of choosing an interview site to ensure "better" interviews. They suggest that the interview site is a "material space for the enactment and constitution of power relations" (p 650). Keeping this in mind, two main sites were chosen for interviews with fishermen: on the beach, next to their

boats or nets, or in the fisherman's home. These sites were chosen based on my past experience working with fishermen in this region and elsewhere, which suggested that while the beach was a public space, it was not "as public" as a tea shop, where other customers felt compelled to eavesdrop, add comments or in some way restrict the ability of the interviewee to speak freely. Elwood and Martin (2000) recommend that the site of an interview needs to take into consideration the relationship between power and place. The beach is a place which only active fishermen frequent, and locating the interview near the interviewee's own boat or net, ensures that the interview takes place within the social domain of the interviewee, i.e. within the domain of his village, surrounded by boats of his friends and relatives. The interviewee is comfortable, since he is unlikely to be overheard by people he doesn't trust.

Another factor that dictated the choice of interview site was my positionality as a woman performing research by herself in rural India. Crang (2002) problematizes the positionality of researcher and interviewee in semi-structured interviews, identifying that researchers might be considered an outsider or transient, and this could affect responses. He recommends a critical analysis of self-reported practices or behavior. My approach to researcher positionality was two-fold. One was to overcome misgivings through transparency, and the second was to harness local perceptions about women and outsiders.

While fishing society is far more open to accepting working women outside the home than many other Indian societies (although these other societies may force women to work outside the home, they are still not perceived as doing so), as a woman,

interacting with (unrelated) male members of the society, I had positioned myself an

outsider. Automatically, I was distrusted by both men and women in the fishing

villages. Choosing to conduct interviews on the beach, offered an acceptable public

environment, where everyone could keep tabs on the interview, without actually being

involved or interfering. Thus word spread about the apparent lack of politically

motivated content in the interview, and more people were willing to participate.

Conducting interviews in the interviewee's home was also a consequence of my

gender and position. Social life and networks, outside the activities on the boat, are

primarily the domain of women, thus my position was unique in seeking out situations

in which only men participate. Interactions between the genders occurs only at home

or at the fish markets, and fish markets are not conducive to interviews. Visiting

fishermen's home also allowed me to be introduced to the fisherman's family, interact

with the women and explain the purpose of my interactions with their husbands.

Maintaining my position as an outsider, through my clothes and dialect, actually

helped the women trust my explanations. Once I explained that I was married, they

felt that I had obviously been compelled in some way to leave my family in order to

come to this place to conduct this work. They then urged their husbands to help me,

so that I could return to my family quickly. At the same time, during the interviews I

would have to create a partial insider position by displaying my knowledge about

local fishing practices, gear and relaying stories of how fishing was conducted

elsewhere. This helped the interviewees realize that they could provide details, not

having to treat me as a dumb, city-bred woman who could be fobbed off with barely

any information. Interactions with fellow researchers and locals in the field greatly

enabled these interviews, by providing background, and information about local

politics, which I could then relay to the fishermen. Having established my knowledge, many interviews ended with a counter questioning about the types of fishing conflicts and management happening elsewhere, particularly to probe if their local issues had resonance at other scales and in other places. Thus the interviews were framed more as an exchange of information, although the fishermen provided for more information than they received.

I sometimes entered a village with a mixed gender group, perhaps a group of researchers studying the ecology of the site, or those conducting other interviews. This provided me with a sense of security and also gave the fisher folk a feeling that if any of us misbehaved, they could take up the issue with the males in the group. I usually had a research assistant, often male, which helped ease people's anxiety about a 'strange, single woman'.

More well-to-do fishermen, particularly owners of large trawl or purse-seine businesses often insisted that I meet with them at their office. Their employees were witness to the interview and, in some cases, questions about quantitative details of their fishing were referred to the employee who dealt with that particular issue. My initial interviews focused on aspects of fishing practice, such as the fishing gear that they used, when and how they fished, the spatial and temporal aspects of their daily practice. I also asked about the environment and ecology of fishing, the species they encountered, and changes they perceived. The next set of questions revolved around relationships with other gear users. This allowed them to bring up notions of territoriality, which were then probed. This provided the gateway to their descriptions of their social network and community. These data were corroborated with participant

observations to identify belonging. Details of these interviews and their protocol are available as Appendix I.

To corroborate answers from these fishermen and provide data for my first two research questions, I interviewed officials from the fisheries department. Although I intended to follow a protocol, these interviews bordered on unstructured. The intention was to ask officials about the way they perceive their role in the fishery, what they actually do as compared to their official mandate, whether and how they perceive different groups of fishermen, whether and how they perceive conflict in the fisheries, how they react to this conflict and so on. Details are available in Appendix 2. The officials, who perceived themselves to be in positions of power, often either ignored, misheard, misrepresented or manipulated the question in order to avoid contentious topics. The interview constantly had to be brought back to the subject of fishermen, fishing and management, through manipulations of the interview protocol to ensure that questions were not perceived as leading and answers were not accordingly biased. The officials constantly probed me for information to understand my position on issues and would respond based on their perceptions of myself as an activist, a student, an NGO representative interested in fishermen's rights or a journalist. This is despite a clear introduction of myself while getting informed consent to conduct and record the interview. Most interviews were not recorded, however, because officials were very wary and did not trust that their identities would not be revealed. The information obtained from these interviews was quite varied and did not follow directly from the protocol.

To answer my third question about the limits of commons management and its effects

on those who are left out, I conducted a second set of interviews with laborers on

fishing vessels and migrant fishermen, who I had come across during participant

observations. Laborers were interviewed in their homes to allow them to speak freely.

Migrant laborers were not allowed to talk to me in Sindhudurg. So I went to their

villages in the Srikakulam district of Andhra Pradesh (state) and conducted interviews

there. These interviews were conducted at the beach or landing sites. For both these

sets of interviews, I probed their motivation for choosing to work as labour rather than

on their own vessels. I also asked about attitudes of other fishermen and the treatment

that they receive as laborers. A final set of questions covered their knowledge about

local ecological and social conditions, of fisheries rules and management. For the

migrant fishermen, I also added questions about why they migrated away from their

own fishery, and the economic and social reasons for choosing Sindhudurg as their

destination.

3) Follow-up interviews: I conducted a second round of interviews with some key

informants and participants of the decision making meetings in order to discuss

conflicts, the way that they are resolved, the finer details of what happened at the

decision making meeting and the fallouts thereof, why community is important and

whether fisheries management has any role to play. I used a memory-recall method to

produce data about meetings in the recent or more distant past which I had not

attended. These interviews did not follow a standard protocol, since the information

sought from each individual was different.

I also collected data from unstructured interviews with colleagues who work in

NGOs, with respect to their perspective about fishermen, the way they group them

and understand them and the fishery. For all interviews, I continued until I reached data saturation.

4) Semi-structured survey: My choice of this method was influenced by Agarwal's (2001) recommendation of comparative studies in common property research, to isolate generalized variables that are associated with effective commons management. Thus, my research participates in the political project of linking qualitative and quantitative research in order to address a broad audience. Here a standard questionnaire was administered to active fishermen (those who still fish for a living). I surveyed 150 fishermen across the two districts, using a rule of thumb to randomize my sample. I picked a direction or a path in the village and surveyed a fisherman in every 3-5th house. I surveyed 90 fishermen from Ratnagiri district and 60 fishermen from Sindhudurg district. The survey is available as Annexure 3. The quantitative data generated was grouped into percentages and analyzed using classification trees. These fishermen targeted ground fish as well as highly mobile pelagic fish, such as ribbonfish, seer fish, sardines etc. Out of 150 fishermen, 53% earn less than 1500 USD annually on average, 5% earn more than 10,000 USD annually on average, and the rest fall in between. About 30% of the respondents from Ratnagiri and 50% of Sindhudurg's respondents is educated at least up to the high school level. The Sindhudurg district has a relatively more homogenous ethnicity, where over 80% of respondents identify as being Hindu from the Ghabit fishing caste, and the rest are Catholics and Muslims. Over 50% of the surveyed Ratnagiri fisher folk identify as Hindu and around 25% identify as Muslim, while others identify primarily as belonging to a fishing caste rather than a religion. Most of the villages included in the study consisted of Hindu and Muslim residents, with only 7 villages that had

exclusively Hindu or exclusively Muslim residents.   Building on the quantitative framing of this method, I was able to work deductively to enable more direct comparisons with the framework developed by Ostrom. This mostly closed ended survey, with a few open ended questions was also used to test the ubiquity of my findings from the participant observations and interviews. Further details about the survey are provided in Chapters 3 and 4.

5) Discourse Analysis: In order to clarify the discourses from which community emerges, thus completing my first questions, I conducted a discourse analysis on historical texts about the fishery, particularly during the colonial period. I also critically analyzed the interview transcripts from this post-structural perspective. Gee (1999) suggests that discourse analysis will help researchers to pay attention to the situated meanings of actions and words, allowing the evaluation of what systems of knowledge or ways of knowing are seen as relevant to the situation of the textual document or the interview. I manually coded the data, using in vivo coding, and organized them into broad themes that eventually led to the writing of separate chapters. Discourse analysis requires that attention be paid to how practices and activities compose a situation, how aspects of power are rendered [ir]relevant and what sorts of connections are made to things outside this situation (Gee, 1999). Keeping this in mind, I generated three broad themes from the data. The first was of identity and the traditional/modern binary. The second was to do with actual practices of management. The third was the disconnect between government and fisher folk, and the existence of parallel systems of control. My fourth chapter stemmed from distinct data, and was analyzed separately. Positioning this analysis after interviews and surveys was intended to draw out, in a more reflexive way, the multiple narratives

used to explain decisions, events and phenomena.

Chapter Outlines

Chapter Two follows Agrawal (2005) in working to reveal the creation of the 'community-oriented' subject. Explicating the hegemonic development discourse of backwardness bestowed on fishermen, by the colonial government, and other castes, I reveal that this discourse continues to be at work today. It has justified the 'development' of the fisheries through welfare schemes for the 'marginalized fishermen'. This development splintered fishing society, creating the binary of mechanized/artisanal or modern/traditional. Now this discourse has become hegemonic, suggesting that fishing society is divided along lines of technology use and modernity. Thus this chapter focuses on the operation of power in the fishery, and the grassroots forms of resistance to this power. My work complicates the traditional/modern binary by showing traditional fishermen as using modern technology, and modern fishermen as exhibiting non-capitalist, 'traditional' ethics. Fishermen may choose to occupy the subject position of traditional/artisanal, because it enacts a power that stems from diverse economic formations, community, knowledge and social relations. I characterize the various ways that fishermen themselves recognize distinctions in their society and identify the different groups who stand to benefits from these categorizations.

Chapter Three critiques standard understandings of commons and common property theory from the perspective of Jean Luc Nancy (1991), who sees community as a shared experience, rather than a set of defining factors by which people group together. Thinking of community as an experience problematizes static

representations of community, thus revealing the inadequacy of a set of design

principles in being able to predict successful commons. Rather than merely attributing

deviants from the predictions of the design principles to causes such as cultural

heterogeneity and political-economic factors, it is perhaps more useful to talk about

the shared set of interests, practices and networks that create effective institutions

(Ratner and Rivera, 2004). I reveal community in these fisheries through practices of

decision making, compliance and enforcement of rules, and relations of

interdependence, rather than commonalities such as caste, religion or economic status.

Thus my research shows that identifying practices of commoning, within the local

cultural context are probably better indicators of commons than static principles.

Chapter Four identifies a disconnect between government fisheries policy and fisher

folk practices, and links that to the existence of multiple legal systems. Literature on

customary law suggests that it can be overwhelmed by interactions with more

powerful legal systems, particularly the combination of capitalist economics and state

legislation. However, customary law in Ratnagiri and Sindhudurg appears to have

relevance beyond the immediate membership of the social groups involved, creating

legitimacy by unifying the larger fishing community against transgressors. I examine

what state fisheries laws exist and how they regulate the fishery as compared to

customary law. I explore whether customary law offers the foundational blocks upon

which commons can be built.

Chapter 5 looks at the impact of commons management on those who are not part of

the community. Labour in the fisheries do not share the experience of boat owners or

family owned fishing operations. Their agency is far less in the fishery, and they are

manipulated into conflict situations easily. This is particularly true of migrant labour,

who have very little knowledge about the ecology or social conditions in Sindhudurg.

I examine the implications of this subject position for the maintenance of community

and commons.

CHAPTER 2: Making Traditional Fishermen

There is a development and colonial discourse that positions fisher folk socially,

politically and economically. These positions have real consequences in terms of the

possibilities and opportunities provided to groups of fisher folk to manage their

fisheries. My analysis of fishermen's subjectivity begins with the colonial perspective,

exemplified by the statement, "The sea faring population of India is born and not

made" (Government of Madras, 1906; p 38). The most direct interpretation of this

statement is that fishing was considered an occupation restricted to certain castes. This

suggested a social rigidity that would prevent economic efficiency, proving an

obstacle to growth and development. An examination of the fishing population at

present reveals a diversity of caste and religion, as well as fishing and economic

practices in the fishery. Despite this, some castes continue to be officially identified as

"fishing castes" (e.g. Government of India, 2011), and more pertinent to this analysis,

as backward castes that need a particular type of economic intervention in order to be

developed. Such a caste-linked economic perspectives, by the government, naturalizes

the association between certain groups and certain types of fishing, positioning some

groups as traditional fishing castes. This is at odds with my findings in the field,

where I saw people from diverse backgrounds trying to adopt the fisherman identity,

despite not being born from the "seafaring population". In this chapter I address this

disparity by asking how the category of traditional fishermen is created and

understood by different actors in the fishery, what work it does to be seen as

traditional, what actions are justified and who benefits from creating such categories.

Despite debate surrounding its usage, the term traditional is retained in this chapter

due to its use by fishermen to self-identify. Given the subjectivity created by being

seen as backward and traditional, I ask how participating in the discourse of

traditional fishing influences fisheries management practices.

My work critiques the traditional fisherman discourse to provide an alternative

reading, one where fishermen choose not to participate in capitalist labour

arrangements and markets, and find a source of power in the traditional identity that

comes with such choices and actions. In doing so, my work sees traditional fishing not

as a site of lack but as an alternative economy, with its own dynamics, foundations,

and modes, such as of common property or shares rather than wages, developed

within the context of social relations. My project, follows St Martin (2005) in seeing an opportunity for community in fishing economies. Although he suggests that such an imaginary is acceptable for the Third World, this is becoming increasingly difficult due to the focus on a form of development, which is capitalist and very narrowly defined. The category of "traditional fisherman" provides an opportunity to examine the relationship between subjectivity and identity, by parsing out its strategic deployment, as compared to the creation of a shared ethic and practice. I use Agrawal's (2005) concept of environmentality to understand the creation of the traditional fisherman as a community oriented subject. Agrawal uses environmentality to denote the knowledges, politics, institutions and subjectivities that come together to manage the environment. I take the traditional fisherman as the starting point to examine the knowledges, politics and subjectivities involved in the management of the commons.

Through interviews with 30 fishermen I find that contrary to the colonial discourse about fishermen, identity is less about religion and caste and more a strategic subject performance by fishermen. Being traditional enables fishermen to access resources, build alliances and secure relationships. At the same time, it involves a particular ethical formation and practice that needs to be performed. It is through these ethics that different and community economies come to persist, and influence fisheries management. Rather than capitulating to a disempowering discourse of development where they are traditional and backward, they utilize the discourse of traditional to empower themselves and maintain their particular economy.

In analyzing this discourse I follow Foucault's (1990) argument that certain discourses are created to support a particular formation of power. His discussion of modern sexual repression reveals both that the discourse of repression arose to create subjects, who perhaps were available for exploitation as labour without being distracted by "pleasurable pursuits", and that the discourse created resistance. A subject who speaks about sex defies the establishment and appears to put herself outside the reach of this power, but acknowledging the repression through this resistance serves only to affirm it. Liberation cannot be achieved by denouncing the repressive mechanism of power, instead he recommends turning to questions of how power operates, what forms of knowledge it deploys to permeate and control everyday practices. I use the approach of analyzing existing socio-economic formations in the fisheries, through a diverse economies perspective to liberate the fisheries from the development discourse. The project of instituting different economic formations arose from feminist critiques (Gibson-Graham, 1996). The diverse economy approach, proposed by Gibson-Graham, widens the scope of economics beyond the formations materialized through the hegemony of capitalism. Through this lens, we can begin to see ethical transactions, co-operatives, socially responsible or community owned business as contributing to the economy and consequently to the project of development. This perspective partially aligns in ideology with Sen's (1999) idea of development, but provides a practical approach to achieve freedom.

Such a post structural understanding of development and economics is pertinent to fishermen, the fishing commons and fisheries management because the language of fisheries is currently saddled with individualization and privatization, e.g. individual transferable quotas, and economic rationality, e.g. maximum sustainable yield.

Following Foucault (1982), liberating the fisheries from these understandings of the economy will promote the formation of new subjectivities and allow the fisheries to transform in ways that are different from the individualistic perspective historically imposed on them. This Foucauldian resistance to 'the government of individualization' (Foucault, 1982; p 212) suggests a shift to community, which is central to the politics of collective action in the diverse economies approach (Gibson-Graham, 1996). The relationship between community and economy is also understood in mainstream fisheries policy, as demonstrated by St. Martin and Hall-Arber (2008), with respect to the US Federal Sustainable Fisheries Act. They interpret the Act as seeing communities as both a means of sustaining fisher folk involvement in management, and as minimizing adverse economic impacts. Thus there is recognition that the form of economics unleashed on fisher folk through the rationale of management could cause hardships. However, St. Martin and Hall-Arber (2008) point out that an understanding of community as a space or group that can somehow solve the problems imposed by capitalist economies is very simplistic. The way that fishermen navigate the government of individualization, in order to maintain control and benefit from fishing, can be diverse. The question is how fishermen confront existing power structures and the hegemonic discourses that help to maintain these structures, in order to achieve their ends. The lens of community and diverse economies can help to shed light on the particular practices through which fishermen organize and respond.

Developing a discourse of backwardness

Development entails the use of modern techniques to improve existence (Peet and Hartwick, 2009). As a means to develop 'the primitive fisherman' trawl fishing was promoted to achieve modernization and growth (Kurien, 1991). Sundar (2010) writes

that the erstwhile colonial government recognized that the employed labour concept was alien to the family owned fishing operation structure of most Indian fisheries. Hence they did not pursue trawl fishing as a way to develop the fisheries. However the independent Indian government justified the introduction of trawl fishing using the rationale of economic efficiency. N.K. Panikkar (1964), a fisheries development advisor to the government of India, while calling fishing a cottage industry, wrote that the traditional and ancient methods used resulted in low quality and quantity of catch. He saw this as the reason that India's fishery did not contribute to the economy, the way fishing did in other countries. Panikkar (1964) mentions mechanization as a means of progress, a way to increase yields while maintaining safety standards for fishermen. Trawls represents foreign expertise, brought in through a technology transfer agreement with Norway (Kurien, 1978). Trawls are "more effective and yielding better returns" than passive fishing gear (Nair, 1974). Sundar (2010) identifies the Indian government's technocratic approach to developing the fishery as mirroring their promotion of the Green Revolution in agriculture. The aim was to increase production for food supply and export, while improving the living conditions of fishermen. To gain the "economic efficiency" of trawl fishing, fishermen require large capital investments for the boat with a storage space, powerful engine, as well as hydraulic equipment to drag and haul the large, synthetic net. This represents a significant departure from the 5 -30 meter boats that from which fishermen operate cast nets, gill nets and hand lines. The small boats are single day, or at the most 36 hour operations, so no storage or equipment is required. The size of trawl operations also increased manpower requirements, creating new economic subjects – wage laborers.

Sen (1999) points out the strong link between the idea of development through economic wealth and the improvement of quality of life. Yet, he cautions, while economic growth can be used to overcome some basic deprivations, such as lack of access to food and healthcare, it is only one means to achieve these goals. Still, across the world, economic wealth is being seen as an end in itself. Governments promote economic growth in the name of development, even at the cost of democratic and civil rights, losing sight of the real meaning of development (ibid.). This particular vision of economy is organized around the circulation of money, the statistics, measurements and calculations involved in maintaining large businesses, workforces and commodities, with little or no apparent relation to society, culture and the broad network in which these objects exist (Mitchell, 2008). This understanding of economy has dominated any others due to the active attempts and persuasions employed to make this seem superior to any other economic formations (ibid.). Thus in these fisheries, development is a discourse that has been used to justify interventions that have serious ramifications for fishing practices, and social and economic formations of life.

That the development of Indian fisheries is conceived in terms of economic growth is clear, with scientists from government research institutes, like the National Institute of Agricultural Economics and Policy Research (e.g. Kumar, 2004), describing progress in fisheries in terms of their contribution to the GDP. Fishermen have also understood and assimilated the link between economics and development, making demands of government for help with accessing new and 'modern' fishing technology, better infrastructure and access to markets (Sundar, 2010). But the discourse goes beyond

economics. A focus on economics serves to lose sight of other obstacles to development in India, such as social inequality (Dreze and Sen, 2002).

The most pervasive form of social inequality in India is the caste system, which according to western research is fundamentally opposed to egalitarianism and equality, important ideals of western civilization (Dumont, 1980). Fishing castes are regarded as distinct from the mainstream caste system due to their unique culture and internal homogeneity (Schoembucher, 1988). The historical position of fishing castes vis-a-vis other castes is difficult to determine. Evidence from literature and inscriptions in the Sangam period (4 B.C. - 2 A.D.) of the present day state of Tamil Nadu, reveals that agrarian castes were seen as most powerful and centers of power were located inland, with subordinate rulers amongst the fisher people of the coast (Devadevan, 2006). In the present, fishing castes are characterized by other castes, with stereotypes, such as independence, pride, aggression and masculinity, as well as regarded with prejudice, as being alcoholics, violent and culturally backward (Schoembucher, 1988). While it is convenient to think of such prejudices as ingrained in this hierarchical society, Kaufmann (1981) points out that the rigid relationships and groupings of caste are merely a fiction of European making. He suggests that many such caste groupings are relatively recent and arose in response to the treatment received by colonial powers who misunderstood associations in Indian society. The discourse of backwardness of fishing castes has antecedents in the colonial era (e.g. Madras Fisheries Bureau, 1915) and has since been used in a variety ways by actors, such as state agencies, government officials, the press, the general population, and fishers themselves.

In colonial reports, fishing castes are spoken of as a single entity (Bavinck, 2001), creating an identity of 'the fisherman'. Evidence of this occurs in the reports of the Madras Fisheries Bureau (1915), the first colonial fisheries management agency. The secretary to Sir Frederick Nicholson, the first honorary Director, was considered a "native authority", who was instrumental in establishing the idea, within the bureaucracy, that fishermen were culturally distinct from the agriculturalists and were in need of social upliftment (Subramanian, 2009). Fishing was understood as a caste based occupation, stuck in exclusionary traditions, and therefore incapable of effective economic and technological development without outside intervention (e.g. Sorley, 1933). Thus even social inequality was portrayed in terms of obstacles to capitalist economic growth, a trend that continues, for instance in Latin America (Coatsworth, 2008) and the United States (Reich, 2017). This discourse, which emerged and became hegemonic during colonial times, continues to influence policy and practice in the present. Indian society is still viewed as being rigidly hierarchical and practicing caste based exclusion, which leads to economic inefficiencies (e.g. Thorat and Newman, 2007). We can also see the colonial/development discourse at work in policy making. In 2012, the Bharatiya Janata Party (currently in power), which was in opposition in the national parliament, brought out a national policy on fishing and fishermen, identifying fishing castes as isolated, ignored and deprived of the benefits of economic development. Their recommended solution included "special efforts to transfer modern innovations and technological developments in harvesting, processing and marketing to fishing community" (BJP, 2012; p 19)[5].

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5   Interestingly their list of fishing castes does not mention Gabits and Kharvis, the main fishing
     castes in my study area, perhaps proving just how isolated and ignored they are, with respect to
     national politics.

Said (1979) has argued that reductive understandings of groups (such as the discourse of the homogenous, backward entity of the fisherman) have colored dealings between groups, such as state and subject, not only in colonial times, but also into the present. In this case economics and socio-cultural inequalities are intertwined to create a powerful hegemonic discourse that has continued to impact fisher folk. Present day Maharashtra, has seen debates about caste that maintain the discourse of backwardness of fisher folk, due to their association with meat, a type of food that goes against right-wing conceptions of Hindu religious purity. Since they deal with and consume fish on a daily basis, they are not considered religiously pure or clean. Therefore, they are portrayed as lower and to be avoided.

The colonial characterization of fishermen presented a particular subject position; one of rigid alignment, exclusionary of non-caste entrants into the occupation, resistant to change, particularly technological interventions and resistant to being organized and monitored by the government. The implication was that fishermen were resistant to being civilized. Current characterizations maintain these stereotypes, with added emotional features (such as aggression) and cultural justifications (such as those based on alcohol or food habits). Throughout this period capitalist economic solutions were put forward to help fishermen overcome these deficiencies. Thus the colonial discourse, which presents the fisher subject (and their spaces) as sites of absence and lack, has morphed into the fisheries development discourse of the 21st century, without consideration for the changes that have taken place in fishing society and the fisheries.

Impacts of the backwardness discourse

While the development project began in the colonial period, I limit this analysis of impacts to the post colonial period in order to contain the discussion and keep it relevant to my field observations. Arising from the larger discourse on caste and backwardness in independent India was legislation to tackle caste-based inequality in education and jobs. Article 16 of the Constitution of India prescribes equality of all citizens and prohibition of discrimination due to religion, race, caste, sex and place of birth. Outside the fisheries, instituting equality took the form of India's affirmative action programs, which rely heavily on economic tools (Deshpande, 2001). 49.5% of government jobs are reserved for backward castes, stemming from the recognition that these groups were historically disadvantaged and need aid to access opportunities. This did not directly impact the business of fishing because it was a very specialized field, primarily operated by fishing castes (constitutionally described as backward) with specialized skills and knowledge. Within the domain of fishing, fisher folk were neither disadvantaged nor needing external aid for the purpose of equal opportunity. But prohibition of discrimination meant providing equal opportunity for work within fisheries to all citizens, irrespective of their skill-sets and knowledge. A gillnet fisherman in Malvan claims,

> "*Before there were only Gabit [fishing caste] people in the fishery. Now others who have extra money or want a parallel business are also investing in trawlers. Jewelers invest in fishing boats, but unlike jewelry, which they know well, what do they know about fishing? They bribe the officials, join the fishing society and get fuel subsidies. They don't fish themselves, they employ labour from outside (places such as Karwar) and pay them wages. Why do they do this? They can't run fishing like they run their jewelry business. What is their caste? Why not do what their caste is supposed to do and stop getting involved in others livelihoods.*"

The Indo-Norwegian Project that transferred trawl fishing technology to India, provided an opportunity for the emergence of new groups in fishing society. Trawl technology is associated with a new capital class, from the fishing castes and outside,

and these fishermen were seen as distinctly different from other fishermen, based on their novel socio-economic relationships and associations (Kurien, 1978; 1985). These divisions in fishing society, between those who saw themselves as historically involved in the occupation and those who had taken it up recently, are promoted by the government through schemes that subsidize the purchase of a limited number of trawl fishing vessels and equipment. These schemes are modeled along the lines of group ownership, which historically characterized fisher folk's approach to property, and requires a group of seven fishermen to come together to avail the subsidy or loan (NCDC, 1988). Nevertheless, bureaucratic hurdles in actually availing the schemes, combined with corrupt officials who demanded bribes or would only accept an application if certain individuals were part of the applicant group, led to fishermen looking elsewhere for capital. Moneylenders and other capitalists entered the fishery, sometimes taking over ownership of boats due to non-repayment of loans. Thus another group of people entered the fishery.

The way that the new entrants fished diverged significantly from the group ownership, community labour models of fishing society. Single owners were common in the trawl fishery and the class differentiation was made apparent by division of labour. Hired employees would run the boat, and the owner would setup links with markets to sell the catch. Earlier, the latter was a woman's job, and not as macho as actually going to sea to fish. Now, the perspective had shifted, and the labour who went to sea were the lesser, and the owner who stayed on shore was greater. This was not acceptable to fishermen who did not participate in the trawl fishery.

In summation, the strategic use of the backwardness discourse by fishermen to gain economic opportunities through government welfare programs created divisions in fishing society. First, to seek the government's help, fishermen had to participate in the backwardness discourse by portraying themselves as lacking social mobility and needing economic upliftment (e.g. Sundar, 2010). This went against fishermen's self perception of being skilled, competent and independent. This perception will be discussed further below. Second, the use of trawl fishing created hierarchies in a relatively egalitarian society. Occupational roles that were historically respected for being macho, were now given a lower status, through government policy and social sentiment, due to their association with wage labour. Fishermen felt that the division of labour arising from the creation of a capitalist class disrespected their skills and knowledge. Finally, the creation of class went against the principle of equal opportunity, on which most fishing societies were based. I explain these factors in detail in the upcoming sections, as well as in the following chapters.

Creating binaries in fishing society

A superficial understanding of fishing society suggests that it is divided along the lines of technology. Researchers, the development apparatus and fishermen themselves appear to buy into this division. In this discussion, I use the distinctions drawn by the fishermen themselves, the fisheries department officers whom I interviewed and the scientists with whom I interacted. All users of shore-seines, gill nets, cast nets and hooks that I interviewed identified themselves as traditional fishermen. This sentiment is exemplified by a statement by a gill net fisherman from Ratnagiri. He said, "*Trawl and purse-seine are new technology. They have been introduced very recently. Traditional fishermen generally don't use them*". His gill net

vessel was 13 m long, with a 65 HP inboard engine – quite a large and modern vessel, which was used for deep sea fishing. This type of vessel had been introduced at around the same time as trawl fishing. Despite this the idea of modernity is associated only with trawl and purse seine fishing gear. Fishermen refer to technology because that is what policy and development agendas revolve around.

The original discourse of fishermen as the primitive, homogenous, other was shattered by the introduction of trawl fishing. Fishermen who adopted trawl technology began to distinguish themselves from other fishermen, using the rhetoric of modernity and efficiency. This is achieved by modifying social relationships of relative egalitarianism and replacing it with capitalist labour relations. Fishermen who do not use trawls identify trawl fishers as those who subscribe to capitalist notions of owner and wage labour. The discourse surrounding this mindset, as well as their export oriented fishing practices, helped set trawl fishermen apart within fishing society. These sentiments and practices were encouraged by a newly independent Indian government keen on developing native industry that could contribute to the GDP. Fishermen who did not adopt the trawl technology were positioned as being anachronistic, outdated and primitive.

Now one group of fishermen identified themselves and were identified by other fishermen, the government and scientists as mechanized fishermen. This involved a discourse of modernity, capitalism and outside support (in the form of capital through government loans or money lenders etc.). Kurien (1978) and Bavinck (1997) identify that trawl fishing created a new interest group of elite fisherman-owner. Trawl boats were concentrated at more urban fishing harbors, their owners tending to be well

connected in the fish trade, and availed modern facilities of storage and transport (Bavinck, 1997). Mechanized fishermen position themselves as businessmen, who have the ear of the governments and can control the markets. Thus they assume a position of power.

This shift in power spurred the development of an identity in contrast. Those who were not in the mechanized trawl fishery assumed the identity of traditional fishermen. The discourse surrounding traditional fishermen was one of historical and caste affiliation to the fishing livelihood, small scale, not economically rational or individualistic, poor and a cultural artifact, despite a demonstrated ability to catch large quantities of fish and innovate new technologies of fishing (Sundar, 2010). Such a deployment of identity categories by fishermen fits the idea that identity is not "essentialist, but strategic and positional" (Hall, 1996; p 3). This understanding is quite different from static perspectives of identity as an individual's cognitive, emotional and moral connection with a community, institution, practice or category (Polletta and Jasper, 2001). Yet these binaries are taken as truisms and have been used to describe Indian fisheries for several decades. While several different terms have been used to describe these categories (Sundar, 2010), the discourse surrounding these binaries remains the same. Kurien and Willmann (1982) uses the term artisanal in opposition to mechanized fishing, Devaraj and Vivekanandan (1999) use small scale and semi-industrial, Hapke (2001) uses small-scale and mechanized, Bavinck (2003) uses the terms trawler and artisanal fishermen. Such binaries continue into the present decade, for instance in my previous work (Karnad et al., 2014; using the terms artisanal and mechanized) and McGregor et al., (2016), who also use artisanal and mechanized.

Government officials continue to use this binary to justify differential treatment of these groups of fishermen. In an interview, a fisheries officer from Mumbai said, *"Traditional fishermen are still using hooks and cast nets. This is their traditional occupation even though there are many modern methods, which are better. So we [Fisheries Department] have schemes to help these fishermen"*. Such stereotypes are not limited to government officials. NGOs tend to group users of shore-seines, gill-nets, cast nets and hooks into a single category and view them as needing help to remain economically viable. Thus these binaries are performing the work of allowing capitalist economic interventions into a realm that would otherwise resist these interventions.

Thus I view these binary identities as positions and performances that require alignment with technologies, a certain version of economics, and particular visions of property and ethics, rather than essential categories. The traditional/modern, artisanal/mechanized discourse reveals the relationship between discourse and power. The mechanized/modern identity suggests support from the government and easy availability of capital, thus dominant and inevitable. This is despite the fact that it is proved to be ecologically unsustainable (Najmudeen and Sathidas, 2008) and economically inefficient (Lobo et al., 2010). The traditional/artisanal identity suggests cultural association, local knowledge and history. Thus this is thought of as subordinate and disappearing. Foucault views the creation of identity as "the product of a relation of power exercised over bodies, multiplicities, movements, desires, forces" (Crampton and Elden, 2007; p 180). Identities are simply a means of discontinuity constructed within discourse, i.e. they are a fictional way to represent

(Foucault, 1970). This is demonstrated by the different social boundaries understood by different actors to represent classes of trawl fishermen (Bavinck et al. ,2015) . They identify three groups of trawl fishers in Tamil Nadu, based on boat size and boat operation practices. Those with the largest boats that required the largest capital investments were also the most powerful in the fishery. The class divisions are also complicated by caste divisions and distinctions based on place of origin. De facto organizations for fisheries management have made visible these distinctions by representing the interests only of "insiders", who were thought to belong to the place and the caste, and separating into a large trawl boat owners association, a small trawl boat owners association, and a gillnet and other fishing gear association.

A development agenda for traditional and modern fishermen

The traditional/ mechanized binary is used by government officials to justify provision of welfare schemes to one group of fishermen over the other. Schemes to promote and subsidize the use of the trawl net, a representation of modernity, capitalism and greater efficiency, were therefore encouraged. Thus this fed into the discourse of a single economy to which fisheries may contribute only in certain ways, with respect to certain metrics, promoted by global organizations like the FAO (2001a), rather than a diverse economy where the dynamic and productive sector of "small scale" fishing already contributes. This "small scale" sector is thought to employ 90% of the world's fisher folk (FAO, 2015a). In fact the FAO itself has changed its stance and now participates in the 'Too Big to Ignore' project on "small scale" fisheries. However this engagement only serves to forward the hegemonic discourse, as evidenced by a line from their voluntary guidelines on small scale fishing : "*Small-scale fishing communities are commonly located in remote areas and*

tend to have limited or disadvantaged access to markets"(FAO, 2015b; p xi).

In 1978 the National Co-operative Development Corporation (NCDC) began providing 20% subsidies and 80% loans to the Maharashtra state government, who in turn provided these benefits to fisheries co-operatives under the mechanization and improvements of fishing crafts scheme (NCDC, 1988). This initiative promoted a shift to trawl fishing, because although the state government subsidizes the motorization of "traditional fishing craft", there is a limit of 10,000 vessels in five years (DAHD, 2016). The support for trawl vessels has no such limit. Fishermen have to organize into government recognized co-operatives in order to benefit from this scheme. Although the name suggests a move away from capitalism, these co-operatives, locally called "societies", are registered with the state Registrar of Societies and function as extensions of the government into the fishery. While some of them have taken on a management role (e.g. Bavinck et al., 2015 in Tamil Nadu), the trawl fishing "societies" in Sindhudurg and Ratnagiri were perceived as a means of receiving government welfare and were not expected to participate in fisheries management. The Maharashtra Department of Fisheries also began to offer compulsory six month training programs on "the operation of modern fishing gears", which at least one member of the group has to attend before being given the loan and subsidy (Department of Fisheries, 2016a). In 1988, the subsidy component was modified to 10% and the loan had to be repaid in 12 years.

Government initiatives also promote new ways to know the sea and find fish, by providing 30% financial assistance for fish finders and GPS units (MPEDA, 2016). They also subsidize the creation of refrigerated holds on boats and onboard ice

making machines (ibid), all aimed at promoting export quality and quantity of catch. These forms of aid, stemming from hegemonic development discourse, necessitate a shift in economic relations, toward a more capitalist form.

Subverting the traditional fisherman

Unlike the resistance to sexual repression that furthers the discourse by acknowledging it (Foucault, 1978), fishermen respond to the discourse of traditional/modern by re-appropriating these identities to support their own positions and maintain their own alternative economy during times of challenge and crisis. That this deployment is strategic is indicated by the fact that fisher folk who self-identify as traditional, based on certain aspects of identity and relationships with other social groups, position themselves at a higher order of power. Subramanian (2009) reports that the *Mukkuvar* fishermen, whom she studied, took pride in the difference between fishing castes and agrarian castes, because fishing castes had never participated in the wage and bonded labour systems of agriculture, and could claim sovereignty over a space (i.e. the sea) that was "beyond the strictures of property". Writing about *Vadabalija* fishermen from Andhra Pradesh, Schoembucher (1988) also mentions this perception of difference, particularly materialized in the absence of private property rights in the sea. A related aspect of their traditional identity is their unique social organization. Despite exclusivity achieved through knowledge, fishing castes show relative egalitarianism internally, which is achieved through an absence of rigid hierarchy. She identifies that the fishing identity has less to do with fishing being an individual's main economic pursuit, since for many people fishing was only a seasonal occupation, and more to do with exclusive knowledge of the maritime environment. Intra-generational social and economic upward mobility can be achieved by an

individual, if he is able to demonstrate wisdom, and achieve status by virtue of having enough sons or younger relatives to be able to not need to go to sea anymore. Schoembucher (1988, p 228) writes that this "flexibility [is] the most essential feature of their social organization". This self positioning as powerful, along with the knowledge of their categorization as primitive by others, allowed fishermen to strategically subvert the standard discourse, in order to counter the adverse impacts of the economy. This differs from Chatterjee's (2008) view of the subaltern. He describes subaltern use of identity based politics, to negotiate for exceptions from capitalist accumulation practices, in order to meet livelihood needs, as taking the form of dependence on government welfare. His Marxist view of capitalist markets working to alienate people from their means of production imbues only the government with the power to both take away livelihoods and give them back through schemes, with very little agency on the part of the peasants. This has not been the case in fishing. While fishermen have leveraged their traditional identity to gain welfare, they have also used it to gain power. For instance, backward caste fisher folk of Tamil Nadu leveraged their caste identity to become an important vote bank during the formation of the All India Anna Dravida Munnetra Kazhagam, an important regional political party (Bavinck, 2001).

Modernity, as a concept, is also used by trawl and purse seine fishermen to distinguish themselves. Fishermen who were beneficiaries of the government schemes think of themselves as participants in the modernizing project. As an older trawl fishermen put it, "*I see on TV that in places like Norway, they are using trawlers. Now I can just watch TV and find out how to improve my trawling techniques.*" Such fishermen think of themselves as part of a global brotherhood of fishermen, unlike their traditional

counterparts. Still, others move past such hegemonic understandings. A purse seine

fisherman contrasted his knowledge and fishing practices with his fathers to describe

this difference. *"My father was a traditional fisherman"*, he said. *"Even if he was not*

educated, he had a lot of traditional knowledge. He knew what kind of weather, we

would get what kind of fish, where and in what season". With respect to his own

knowledge and ability to predict, he said, *"To some extent, not like my father. Also, we*

use fish finders and GPS, so that is not the same". A trawl fisherman from Ratnagiri

said,

> *"People who have bought engines and motors, and learned the trade with technology, these people are not traditional fishermen. They have become rich. Our ancestors knew how to fish. Now it's only about measurements and specificities... Technology can be integrated in fishing, but we [trawl fishing] have become completely dependent on it."*

Thus fisher folk rework these categories themselves. Identity is spoken about

relationally. While fishermen continue to use fishing gear and caste as a way to

distinguish between traditional/modern, they also use parameters of knowledge,

practices and ethics to separate the two. Doing so makes obvious their realization of

the discourse that surrounds these identities.

In the face of evidence that fishing technology has evolved across all sectors and gear

types, fishermen nuance their arguments about tradition. Fishermen's use of the term

traditional involve a particular concept of experience and knowledge, ethics, and

institutional forms that can be visualized by participation in socially accepted rituals.

For instance, a cast-netter from northern Sindhudurg district said, *"Trawl nets catch*

everything, from fish fry to eggs, even baby shrimp. What value will a few baby

shrimp have in the market? But they will have great value as food for fish. Traditional

fishermen do not think of fishing like this". The implication of this statement is that

traditional fishermen think long term and respect ecological linkages, such as food

webs. A gill net fisherman from further south said, "*Traditional fishing guarantees*

catch for the future". Data to support such claims is limited. Preliminary data (Gangal

and Karnad, unpublished) indicates that shore seines, which are considered

traditional, trap a large quantity of fish fry and eggs as compared to fish of a

marketable size. These claims are not reflective of ecological data about actual

impacts of different forms of fishing on marine resources. However, they indicate the

formation of a particular subjectivity that links traditional fishing to greater

connections with the environment.

Another fisherman distinguishes trawl fishermen in economic terms. This is despite

the fact that some of the trawl owners from his village are from the same caste. He

says, "*They [trawl fishermen] only think of profits. With their huge catches and*

profits, they inflate the price of all goods, from fish to fruits in the market". Thus he

implies that he, as a traditional fisherman, thinks of more than just profits. His

rationale is that traditional fishermen are concerned with equitable access to

resources, whether in the sea or in the market.

Constructions of identity are not only created by social and psychological processes,

but also political processes (Gregory et al., 2011). In this case, conflict over gear

usage made difference visible. Being identified as a trawl owner is deeply political

and distinctions based on gear usage are a source of conflict within fishing societies.

Trawler crews came into conflict with other gear users due to their ability to

outcompete other fishing gear, their tendency to damage passive fishing gear that had

been set in their path and break established rules of conduct (*ibid*). Several fishermen that I interviewed have acknowledged the change in relations that trawl fishing brings. A gill net fisherman who had once worked on a trawl boat said, "*I don't want to be someone's employee. On a trawl boat, I will be forced to work in bad conditions. As a small boat fisherman, I can work on my own terms*". Such sentiments contribute to the alterity of trawl fishing within the fisheries.

Conformance with expected behavior and practices is an important part of identity. For instance in these fisheries, a fisherman is expected to actually go to sea and fish. Non-fishing castes are known to employ others to fish. All trawl boat owners, who were not from the fishing caste, mentioned not having fished personally and having employed others to fish on their boats. This idea of having personally faced the hardships of life at sea is quite important to fishermen who identify as traditional. Many of them mentioned such experiences, couching it in terms of masculinity. For instance one fisherman said, "*I like fishing more in February and March*, *the windy season. I like fishing when there are huge waves and there's a lot of wind. It's fun. If the sea is calm, then it gets boring*". The discourse of firsthand experience is important to those who consider themselves traditional fishermen, since it conveys participation in an exclusive body of knowledge, unavailable to agrarian castes, policy makers or any other sort of outsider.

A post structural perspective of traditional fishing allows us to see the counter discourses, which while colored by the hegemonic discourse of development, maintain their distinction by focusing on factors such as knowledge, experience and diverse economic practices. Technologically advanced fishermen still perform the role

of traditional fishermen. Thus technology and caste are not as important to fisher folk as the development apparatus suggests. Instead relationships with other fishermen, with the environment and with the community economy are important to the indigenous discourse of tradition. In these discussions we can see that a   community-oriented subject, that is identified as a 'traditional fisherman' emerges from the larger fisherman identity. These relationships will be revealed further in Chapters 3 and 4.

New traditions

Mirroring a global shift that is now blaming industrial fishing for overexploitation (e.g. FAO, 2015a) the Indian government is beginning to withdraw support for mechanized fishing. While some suggest this has arisen from pressure to stop incentivizing fishing techniques that are known to be ecologically harmful and unsustainable, the government's agenda to boost fish production[6] seems to suggest otherwise. Nevertheless, this is causing concern among the trawl fishermen, indicating that this modernization and development project requires state intervention, to produce and maintain capitalist forms of fishing. Trawl fishermen are beginning to rework the discourse and their identity, in order to be able to continue fishing.

Two trawl fishermen said that they had not availed of the NCDC schemes to build their vessels, as they had invested in the vessels quite recently. Despite the continued availability of the scheme, one said, "*Given the rate of inflation, the amount that we get as subsidy is barely enough to cover the cost of the engine, let alone the rest of the vessel. That is why it is not worth going for the NCDC scheme.*" Despite this, these fishermen continue to benefit from the government initiatives to promote

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6   http://pib.nic.in/newsite/PrintRelease.aspx?relid=111173

mechanization by availing of the subsidy provided on diesel. The national government

provides a Rs 1.50/liter rebate to fishermen using high speed diesel, and the state

government reimburses the value added tax on diesel for fishing boats. The state also

provides assistance for building approach roads, fish drying centers, ramps and

channels for fishing boats at the landing sites, 15% subsidy on nets (Dept of Fisheries,

2016b). Several trawl fishermen report that the only benefit that they now receive is

the subsidy on diesel, and with increasing diesel prices, this subsidy no longer allows

the fishery to be profitable. Trawl fishermen now perceive that government benefits

are now increasingly provided to traditional fishermen. One fisherman who did not

use the NCDC scheme to build his trawl boat said, *"Before there used to be a lot of*

good schemes to help fishermen like us. Now we don't have anything. We have all

switched to trawling, but it is not profitable. Now the government supports the gill

netters and other small scale fishermen. They declare exclusive artisanal zones and

give them subsidies for outboard motors. What do we do? Where should we go to

fish?"

Even when mechanized fishing was still being promoted, the government still created

space for artisanal fishing. Initially the government promoted motorization of country

boats (Bavinck, 1997), and resulting from protests by the artisanal fishers, created

seasonal and spatial closures for trawl fishing (Devaraj and Vivekanandan, 1999). The

central government has now brought in a scheme to encourage the construction of

non-motorized boats, providing loans of up to 50% (Dept of Fisheries, 2016b). Once

again, this is justified using the discourse of the primitive fisherman. NGOs tend to

group users of shore-seines, gill-nets, cast nets and hooks into a single category and

view them as needing help to remain economically viable. A staff member from the

International Collective in Support of Fishworkers said, "*Small-scale fishermen, those who are not mechanized are artisanal fishermen. They cannot compete with trawlers and purse-seiners, so we need to help them organize in order to maintain their way of life*". This suggests that traditional fishing, until now a subordinate form, is not expected to disappear at the hand of the dominant form, i.e. mechanization. Instead development can now build on the base of the traditional, forcing the alignment of its practices to capitalism. Thus the fishers' rethinking of the traditional identity is now an important project to document and re-appropriate this category such that it is positive and has a future.

Once the benefits from trawl fishing began to stagnate in the 1990s (Devaraj and Vivekanandan, 1999), purse seining technology, despite being introduced in India from 1977 (Pravin, 2002), began to gain popularity. However, the adoption of this technology was slow because it required a much larger capital investment. "*The purse net is very expensive. It is worth more than the boat itself*", says one purse seine owner from Nivati. The use of this fishing technique once again spurred protests from other fishing gear users. This provided an opportunity for all fisher folk to renegotiate their identities in relation to each other.

Owners of trawl boats have begun to identify themselves as "traditional fishermen" when making comparisons with those who use purse seines. One trawl fisherman justified calling himself a traditional fisherman by saying, "*Fishing is my ancestral occupation. My father and uncle were fishermen. We [siblings] were raised with fishing terminology being spoken around us, we knew what it meant to go against the wind or towards the wind. I learned all these things from childhood.*" Thus trawl

fishermen are hoping to continue receiving welfare from the government by switching identities and shifting the discourse.

Being a "traditional fisherman", according to the interviews, has implications beyond having fishing as an ancestral occupation. Those words imply a very specific type of participation in social, cultural economic and political activities. This expectation of participation varies depending on the village and type of fishing practiced. A Muslim trawl owner, who self identifies as traditional in a primarily Hindu fishing management group, stated "*I go to the temple for the puja and break the coconut on the shore at the start of the annual fishing season. I have no problem, this is how we traditional fishermen do things*". He was clear that his participation was merely to cement his acceptance as a traditional fisherman. He said, "*I only participate in these things if they are related to fishing. If it is just a festival or something, then I don't go. Of course, like the others, I also avoid fishing during Ganesha [festival of Ganesh Chathurthi], but they can't insist that I follow all Hindu rituals/traditions*". In this village trawl boat owners are now accepted as traditional fishermen, provided that they are small businesses (single owner, single vessel) and participate in local customs. These trawl fishermen have to perform these acts that declare to others their values and interests. An important path to acceptance in 5 villages was belief in the local deity. A gill net user said, "*Many of the conflicts occur out at sea. By the time everyone comes back to land to complain, it becomes like my word against yours. It is better that everyone answers to the devta [God of that temple]. What can they say (in defense) if the devta is judging them?*" Those who do not abide by the power of the local deity cannot be controlled by fishermen, and dispute resolution will necessarily have to involve state authorities. Willingness to participate in local dispute resolution

also helps mechanized fishermen be accepted as traditional. Through acts that conform with cultural and religious customs, fishermen can demonstrate their commitment to support their community (as we will see in other chapters) and participate in the subverted discourse of traditional.

Limits to traditional fishermen

Now, purse seine users are beginning to use the term traditional to describe their fishing techniques. Once again arguments are made based on ancestry. A purse seiner from Nivati says, *"I am a traditional fisherman because my father was a traditional fisherman. My father used hooks and line."* An additional argument is that these fishermen, unlike trawl fishermen, subscribe to similar ecological ethics as traditional fishermen. For instance, one response was,

> *"I have used a purse seine for 8 years, but I am a traditional fisherman because purse seines are not as bad as trawling. We do not scrape the sea bed and destroy everything. We catch only specific schools of specific species, not anything and everything."*

Others used the argument that purse seining is an extension of shore-seining, which is undisputed as a traditional occupation. Another purse seiner said, *"How is purse seining different from rampan? We just do the same thing a little further out at sea and because of this we use more boats, instead of dragging the net from shore"*. Another argument for identifying as traditional is the non-capitalist nature of the business. A fisherman from Shiroda says,

> *"In our village, purse seining is not setup like a business. We don't employ people really, we mostly use family members and people from in and around the village, No one comes from outside. Each member has one share in the catch. Over here, a mini-purse net fishery is on partnership basis. There is no distinction between crew and captain. We put aside money for running costs and the profits are divided equally amongst the fishermen, plus one part for the boat, one for engine and one for net. As a group if we have taken a loan, out of*

the entire amount we take out 25% and then split the rest. Even if I am the owner, I still get only 1 share. Everyone in Shiroda and Kerwadi adopts this system".

These arguments are not accepted by non-purse seiners and those in favor of banning its use. They see it a ruse to use the spatial and seasonal restrictions that benefit artisanal fishermen.

Conclusion: Revealing the 'traditional fisherman'

The hegemonic development discourse of backwardness, while bestowing a lower social standing in relation to non-fishermen, allowed fishermen to benefit from government welfare schemes. However it brought about divisions in fishing society, creating the binary of mechanized/artisanal or modern/traditional. These identities are recognized by the government and researchers (outsiders) as being divided along lines of technology. The fishermen themselves draw lines through customs, performances, ethics, knowledge, commitment to their community, in addition to the expected factors of technology and caste. Fishermen choose to occupy the subject position of traditional/artisanal, because it enacts a power that stems from diverse economic formations, a sense of community, knowledge and social relations.

The benefits of being a traditional fisherman are multiple, and will also be discussed in Chapters 3 and 4. First, as a means of gaining respect and social standing. The individual fisherman evaluates himself relationally. The traditional fisherman is expected to conform with certain behaviors and fishing practices. While broad divisions are visible in the use of mechanized fishing gear, practices of sacrificing financial profits to ensure equitable access, personal participation in fishing trips, single vessel ownership, community ownership, the absence of wage labour relations

are some of the features that characterize traditional fishermen. This list of characteristics is quite at odds with the hegemonic discourse of traditional fishing meaning small-scale, sustainable, cultural artifacts. Traditional fishermen are those who demonstrate an ethical commitment to their community in terms of economic relations and distribution of wealth.

Those who diverge from the traditional are still subject to local power that stems from the subverted discourse of traditional. Fishermen who operate large fishing businesses with fleets of up to 10 boats, are never considered traditional. This is a considerable loss of status within the fishing community. These fishermen perform placatory actions, such as donating money to rebuild the fishermen's temple, or to building sports facilities or libraries for the fishermen's children. They appear to feel the need to justify their use of offensive gear, like the purse seine. One such large business owner said,

"Personally I don't believe in purse netting, and nor do the others, but purse-netters from other states were coming to our coast and taking all our fish. We tried complaining to government officials again and again but nothing happened except that we got tired, so we started purse netting so that we could catch our fish before the other state guys came. Even now if the government bans purse netting I am ready to stop, I know it is bad for fishing in the long run but the only way I could compete with the outsiders was to start purse netting myself".

Those considered traditional within the fishing community are made to comply to the cultural and ethical rules of being traditional (irrespective of their religious affiliation), and those who are not are nevertheless made to feel that they must contribute to community wellbeing in order to gain respect and social standing.

Second, a more practical aspect of being accepted by other fishermen as traditional involves knowledge and information sharing. Information, such as about where fish is

found, or the location of stranded vessels in case of accidents at sea is key to fishermen who do not use GPS and fish finders. This is particularly true of small-scale trawl and purse seine owners, who own just one vessel, which may not be fitted out with modern communication gadgets. One fisherman said,

> *"When there are accidents at sea, we can't depend on the government for help. That could take days! We go out and help each other. But trawl vessels – they can take care of each other. Usually they are all from the same company anyway, if not, they have all the technology, like walkie-talkies, to call for help."*

While this is true of companies with fishing fleets, it does not reflect the reality of most single owner trawl vessels. Despite the government providing information on potential fish aggregations, and the existence rescue and safety vessels, fishermen do not believe that they can depend on the government for such things. Conflicts at sea are also resolved within fishing society and access to all these functions and facilities requires being recognized as traditional. Thus there are practical incentives for fishermen to conform with the interests and ethics that stem from the traditional identity.

Third, fishermen strategically deploy the traditional fisherman identity to benefit from government welfare schemes that are increasingly being directed at artisanal fisheries. The mechanized fishery has benefitted from these schemes, and the perception is that without the subsidies, the mechanized fishery is not economically viable. Thus some fishermen are trying to take on the traditional identity in order to gain access to fishing grounds, such as the exclusive artisanal zone, and potentially receive government benefits. Due to the technology they use, they are not seen as traditional by government or NGOs and since these fishermen do not perform the traditional identity, they are not accepted as traditional by other fishermen.

The binary of traditional/modern is divided by a fuzzy line that some fishers try to cross and claim with varying degrees of success. In so doing, they complicate the idea of traditional fishermen, allowing us to look beyond technology and caste to processes that really matter to fishing communities.

CHAPTER 3: Creating the fishing community

This chapter addresses the broad debate in the commons literature about how to discern community and commons, in relation to the ongoing struggle in marine fisheries management to find solutions that work for the people and the ecosystem. Fisheries in developing countries, like India, are particularly thought to face a failure of fisheries management (Andrew et al., 2007). The global debate about marine fisheries management, influenced by the work of Scott Gordon (1954) and Hardin (1968), has resulted in privatization solutions, such as Individual Transferable Quotas,

or government instituted marine protected areas. Despite recognizing that the marine realm could potentially be thought of as commons, actual fisheries management has largely ignored developments in the commons literature (Mansfield, 2004). The debate in the commons literature now focuses on the approach of one of the most influential critics of Hardin and Scott Gordon, Elinor Ostrom. Her work (1990; 1993; 2000; 2009) identifies successful commons management with particular places and people, leading to a general assumption that commons and community could be identified by a set of physical or cultural characteristics, including spaces and places, forms of identity and so on. I call this the design approach. Even as she identifies the existence of what she calls "institutional arrangements" to manage commons at a local scale (Ostrom,1990), her perspective continues to view resource users as rational individuals who perform collective action out of self-interest. McCay and Jentoft (1998) identify this as methodological individualism. Case studies, published in the fields of area studies and anthropology, show that resource users do not necessarily function as rational economic actors (Harriss, 2003). Instead, a complex set of factors, such as the external social, institutional and physical context of resource use, might bring users together to form ethical relationships and linkages (Agrawal, 2001; McCay, 2002), and perform actions that can be identified with a sense of community.

In this chapter I address a key concern, in commons research, of recognizing commons and community, while keeping in mind that these are processes rather than static properties of particular social and environmental relations. While participating in Ostrom's (1990) project to reveal and elevate common property systems in the eyes of managers and policy makers, my work uses a different approach to show that commons and community can be found in unexpected places, if one knows how to

look for it. Indian fisheries are marked by economic heterogeneity, ethnic diversity

and exit options. A study based on an Ostromian understanding of commons, with

respect to a similarly heterogeneous groundwater commons and community, found

that economic heterogeneity, ethnic diversity and availability of options to exit the

management regime reduced participation in community level self management

(Bardhan and Dayton-Johnson, 2002).

 Ostrom's design principles address her concern that commons management systems

can be ignored by policy makers because they are presented in the form of distinct

case studies. Her compilation, through a comparative analysis of a variety of cases,

into broadly applicable principles brought greater recognition to commons

management. The principles include: a careful definition of the boundaries of the

property rights with respect to resources and social groups; congruence of the

institution with local ecology, culture and benefits-costs; formally recognized

collective-choice arrangements; monitoring and graduated sanctions; low-cost and

speedy conflict resolution mechanisms; recognition of local rights to organize; and in

cases where the resources are large, nested management enterprises (Ostrom, 2009).

Her list of principles has been subsequently updated by Agrawal (2001) and Cox et al

(2010) who reflect on the applicability of these principles to commons management in

practice. Their analysis suggests that Ostrom's principles could be treated as a starting

point in a study of the commons, because they do not fully describe successful

common property regimes.

At work in the way the design principles are being applied (although not intended by

Ostrom) is a development epistemology that presumes a binary between traditional

collective society and modern society in which collective self management is necessarily in the past. Evidence of extra-government commons management in Indian fisheries (e.g. Bavinck, 2001; Coulthard, 2005; Kurien and Vijayan, 1995) has been largely analyzed as a remnant of historical or traditional practices. Therefore any emergent collective self management is overlooked or hard to imagine. As I observed in the previous chapter, encounters with modernity, in the form of changing policy, demographics, changes in levels of education, increased market access (Axelrod et al., 2015), etc., are assumed to have a detrimental impact on successful management. Despite finding instances of negotiations and rule making that suggest community-level management of the fishery commons, Bavinck et al. (2013) describe a breakdown in several fisheries governance mechanisms in six cases across South Asia. The general tendency to focus on design and success of commons management by communities untouched by modernity makes it more and more difficult to see commons at work. From this perspective, Bresnihan (2015; p 105) says "the relationships and practices that sustain the commons are rarely visible until they disappear".

Critique of the design approach has now gone beyond a focus on context. Studies now discuss successful commons as a property of successful communities (Jentoft, 2000). Commons are a manifestation of work, made through the activity of community (Gidwani and Baviskar, 2011). Further, research at the intersection of economics and social science, sees community as an economic formation, in addition to its cultural and social aspects (e.g. Gudeman and Rivera-Guttierrez, 2002; St. Martin, 2006). Linebaugh (1993) identifies as a shortcoming in commons literature the failure to recognize the role of the economy, and the working class as having agency to work

against private property and inequality.

Linebaugh (2008) introduces the idea of commons and community as an active process, using the term 'commoning' to denote the act(s) of (re)producing commons. The idea of commons as a process is forwarded by DeAngelis (2010) and Gibson-Graham et al. (2016). Gibson-Graham et al. (2016) shift focus to the relational process through which commons are created, involving negotiations of access, use, benefit, care and responsibility. They, like Jentoft (2000), identify commons-making as directly related to community, but they go further to say that processes of commoning simultaneously make the commons and the community.

An important contribution of the commoning approach has been to move away from the focus on resources and to highlight relationships instead (Bresnihan, 2015). The starting point is not an individual, but a relational subject that is interdependent on humans and non-humans (ibid.). St. Martin (2006; 2007) uses this approach to describe fisheries in the First World , but despite assumptions about the existence of community in the management of fisheries in the Third World, this is not how fisheries management is understood in India. Scientists (e.g. Kurien and Vijayan, 1995) and politicians (e.g. BJP, 2012) view local and village level fisheries management in India as small scale and limited to certain 'traditional' fishing groups. From the perspective of Ostrom's design principles, most Indian fisheries do not fit the ideal conditions of well defined boundaries or effective enforcement and sanctions. Fishing is not easily monitored; therefore the fisheries department does not effectively enforce laws governing the fishery . Most scientists see India's fisheries to be open-access, i.e. used by all, resulting in Hardin's (1968) tragedy of the open-

access commons (Devaraj and Vivekanandan, 2001). The push for neoliberal methods of fisheries governance reveals the persistence of this assumption (Kurien, 1985)

I examine whether shifting perspective from the design principles to a commoning approach helps to reveal commons and community in the fisheries of Ratnagiri and Sindhudurg districts, India. Specifically I see community and commons as emerging from the daily processes and practices that make social relations visible. In this examination commons is not a separate entity from community, rather the people and resources are intertwined through the different ways in which they relate, making community and commons co-constitutive.

From commons to commoning

Nancy (1991) identifies that the mainstream discourse on community focuses on what he calls a 'mythical community', a thing built from nostalgia about unity arising from commonality in a normative framework, such as race, religion and identity. The studies using the design principles appear to rely on such commonalities to draw boundaries around community and commons. As a result, communities that are not built around such commonalities tend to be unrecognizable. Nancy's vision of community stems from what he calls "being-with" or "being-in-common". Gibson-Graham (2006) explain Nancy's position as equating the state of being to a state of interdependence. Nancy's contention is that the philosophy of individualism involves a mythical loss of community through the perceived erasure of these social relations. Gibson-Graham (2006) suggest that neoliberal practices work to mask or obscure relations and linkages of interdependence. This theory suggests that the potential for community and commons management depends on the degree to which we recognize

the interdependences that fundamentally unite people (as opposed to politically motivated unions over categories, such as caste or religion).

Communities are continuously changing through every innovation that is introduced and every new value that is created (Gudeman and Rivera, 2002). Therefore, creating a blueprint, such as the design principles, for successful commons institutions could be an impossible task. Instead, my research has taken on the task of revealing commons and community by exposing relations of interdependence. Using this focus on interdependence and relations I conducted research in fishing villages containing populations from multiple religious backgrounds, economic classes, castes and ethnic/language groups. If I were to understand that common identity, most often used as a commonality, was a way to visualize community it would lead me to predict the absence of unifying factors and therefore a lack of community and an impossibility of collective commons management. Yet interviews and observations showed me that the fishermen were constantly negotiating boundaries between "their group" and "outsiders", creating rules of participation in the fishery and other factors discussed in this chapter. I used these processes as ways to visualize community in these fisheries. My recognition of community and commons stems from evidence of negotiations, distinct practices performed by different groups, the ways in which they create boundaries, the ways in which they relate to others, who is considered part of the community, and to the way human and non-human externalities relate to the resource.

The commoning approach changes the way that we frame commons problems. Starting from the standpoint that "to be" means "to be-in-common", the commoning approach challenges the individualistic models that make up sustainability science and

question the economic models that form the very basis of modern fisheries management. If there are not individual, economically rational fishermen in the fishery can a tragedy arise as predicted? Taking ethical relationships as the starting point to seeing community in the fishery means not using scarcity as a way to understand fisheries. Therefore success cannot be defined in the same way, through this approach, as compared to the standard quantitative definitions of success or failure used by the tragedy or design principles approaches. I understand that revealing community, as an ethical formation that effects both social and economic life, in itself modifies the harmful impacts that unbridled capitalism is expected to have on the fishery.

Aligning field data with design principles

In this chapter, I present the data I gathered from interviewing key informants across eight groups of fishing villages and surveying fishermen across 26 villages in the Ratnagiri and Sindhudurg districts of Maharashtra state, India. I use the multiple methods as a way to compare the different approaches to understanding community and commons management. Results from the semi-structured survey help me identify patterns of fishing and cultural practices across the region. Simple percentages and classification trees help me categorize these patterns into characteristics that could fit the categories suggested in the design principles. An overview of the survey results finds some correspondence with the design principles, but also key deviations that would predict failure of a management system (Table 1) with respect to standard definitions of success.

Design Principle Characteristics*	Case study	Correspondence to design principles

Resource characteristics: small size, low mobility and clearly defined boundaries	Large, high mobility, fuzzy boundaries	No
Social characteristics: small size, well defined boundaries, shared norms, social capital, leadership, homogenous identity and interest, low poverty, interdependence	Small, well-defined boundary, multiple villages ethnicities and gears used, shared norms, social capital, differential poverty rates	Some
Relationship between group and resource: overlap, high dependence, fair allocation, low demand, gradual change	Overlap, medium dependence, fair allocation, high demand, rapid change	Some
Institutional arrangements: rules relevant to local conditions, benefit outweighs cost, participation in decision making, accountable monitors, graduated sanctions, low cost adjudication	Rules relevant to local conditions, benefits outweigh costs, participatory decisions, accountable monitors, graduated sanctions, medium cost adjudication	Yes
External environment: local institutions supported by authorities, nested enterprises, low articulation with markets, gradual change in market articulation	No external support, no nested enterprises, medium to high market articulation, rapid change in market articulation	No

Table 2: Summary of institutional characteristics in the study site and their correspondence to the design principles for effective collective action concerning common pool resources.
*Adapted from Agrawal (2001), Cox et al. (2010) and Ostrom (2009); results based on interviews

The Ratnagiri district has over 65,000 fisher folk and the Sindhudurg district has about half that number (Government of India, 2010). As in many populations (Leach et al., 1999) there are clear religious, class, cultural and political divides among these fisher folk. Open ended interviews with key informants allowed me to explore the processes and linkages involved in creating relationships across these categories. I also add some results from opportunistic observations of village meetings and follow-up interviews conducted with meeting participants to emphasize my use of the interdependence approach. Details of the methods are discussed in Chapter 1.

Correspondence between the characteristics of the fisheries in my study and those predicted by the design principles, is low (Table 1), particularly with respect to resource characteristics and external environments. However, there is clear evidence of institutional arrangements that correspond to the design principle characteristics. In addition to these characteristics of institutional arrangements, I found evidence of territoriality centered around negotiations about fishing gear usage, and the enactment of egalitarianism despite existing social, cultural and economic hierarchies. These features were exemplified in the way meetings and decision making were conducted by groups of fishermen and in the way that this helped create a "fishing" identity that was recognizable to outsiders (as discussed in Chapter 2). To think of the individual or the community as absolute is to forget or ignore the relative way in which an individual or a community functions. Rather than the mythical community built on

commonality, I describe here the workings of relational communities. For these reasons, as well as the terminology used by the fishermen that I interviewed, I refer to groups of fishermen who come together to negotiate institutional arrangements, territoriality, identity and ethical relationships, as fishing communities. I view these communities as effectively mitigating some of the impacts of capitalist exploitation because they have developed ways of dealing with the diversity of religious, ethnic and economic backgrounds, and overcoming changing relationships of power. I discuss my findings in detail below.

Relating to marine resources

Main seafood group targeted	Main gear categories	Biological characteristics	Primary Market
Sardine	Mini-purse and gill-net	Migratory and pelagic	Local and Export
Prawn	Mini-purse and trawl	Bottom dwelling adults, free-swimming larvae	Export
Pomfret	Trawl and gill-net	Inshore and bentho-pelagic	Local and Export
Ribbonfish	Trawl	Diurnal migration, fast moving, enter estuaries	Export
Squid	Trawl	Fast swimming, epibenthic	Export
Seer fish	Gill-net	Migratory and pelagic	Local and Export
Tuna	Gill-net	Wide ranging and pelagic	Export
Mackerel	Gill-net	Inshore plankton feeders	Local and Export
Sharks	Gill-net	Migratory, pelagic and benthic	Local and Export

Table 3: Characteristics of most high value species caught in the fisheries, as per interviews.

The main species landed along this coast are Bombay duck (*Harpadon nehereus*), eels, elasmobranchs, breams, croakers, ribbonfishes, big-jawed jumper (*Lactarius lactarius),* unicorn cod (*Bregmaceros mclellandi*), pomfrets, seer fish, billfishes, mullets and crustaceans like prawns and crabs (Madhupratap et al., 2001). Ninety-four percent of gill-net fishermen that I interviewed preferred to catch sardines, seer fish, pomfrets, tuna, mackerel and sharks, because these species fetched the highest prices. In doing so, gill-netters overlap with the targets of trawl-nets and purse-seines. Some species, like sardines, exhibit clear migratory behavior along the west coast of India (George et al., 2012), moving through and far beyond the study area at different times of the year. Other sought after species are also highly mobile and wide-ranging if not migratory, preventing clear boundaries from being drawn around them as resources. The highly mobile resource and potential for competition over resources could increase conflict, thereby masking relations and practices of commoning. Thus these species do not fit the ideal resource characteristics under the design principles of low mobility and clear boundaries.

Fishermen overcome these differences by grouping by the way in which they relate to the resources. The most obvious way they connect to resources is through gear usage. One community in southern Sindhudurg district comprises users of shore-seines, cast nets, hook-and-line and gill-nets. Despite this diversity, what they have in common is their refusal to use a trawl-net or participate in beam and otter trawling. This reflects a particular ethic with respect to resource extraction, because they claim that these types of trawl-nets scrape the seabed and damage the ecosystem. A gill netter from this community says,

> *"A trawl-net catches too much [fish] at one time. Only one person benefits – the trawl [vessel] owner, not even his crew. If one trawl net scrapes the bottom here, then there won't be enough fish left for the rest of u*s." An older fisherman, who is part of a shore-seining operation, adds, *"These trawlers keep scraping the seabed and the fish are starting to disappear. Some of the fish [species] we used to catch before have disappeared. We no longer get them in this area."*

Another fishing community prides itself on only allowing a co-operative model of business, where crew members are often family members and therefore share in the decision making and the profits. An experienced fishermen who is knowledgeable about the sea guides their fishing routes and choice of net. Whereas, in the capitalist, employer-employee model used by mechanized fishing operations such as trawl and purse-seining, the decision maker is usually the owner of the vessel, who often does not participate in actual fishing expeditions. This community finds the capitalist model of business foreign and alien. A member of this community asks,

> *"What will someone who has never been to sea know about where fish are, how to find them, when to catch them and so on? Still, jewelers [*euphemism for non-fishermen*] are buying fishing boats and relentlessly sending them out these days. They don't care about monsoon breeding or bandhs [*traditional fishery closures*]."*

By defining community in this way, fishermen can overcome overlaps in resource usage. But this makes boundaries relatively fluid. By choosing to follow certain fishing practices an individual could gain access to a community, even if they are from a different village or use a different but related fishing gear. The ethics defining relationships to the resource are one way in which community becomes recognizable.

Fishing relations across religious and cultural diversity

Over 50% of Ratnagiri fisher folk identify as Hindu and around 25% identify as Muslim, while others identify primarily as belonging to a fishing caste rather than a

religion. Hindu fisher folk are from the *Kharvi* fishing caste, while Muslims include recent migrants like the *Memons,* from the state of Gujarat, and fisher folk from the state of Andhra Pradesh. Most of the villages included in the study consisted of Hindu and Muslim residents, with only 7 villages that had exclusively Hindu or exclusively Muslim residents. Within a village, there was often some degree of spatial clustering, with Hindu families residing closer to the temple and Muslim families residing closer to the mosque. The Sindhudurg district has a relatively more homogenous ethnicity, where over 80% identify as being Hindu from the *Ghabit* fishing caste, and the rest are Catholics and Muslims (Government of India, 2010). Most villages had Hindu residents, with only 4 having Hindu, Muslim and Christian residents, and one with Hindu and Christian residents. This religious diversity is notable, since Maharashtra state is known for religious and cultural or identity based state politics, intolerance (Hansen, 1996) and well documented religious riots (Menon, 2012). Thus achieving commonalities of shared norms and homogeneous identity could be challenging.

Interviews with fishermen revealed the ways in which interdependence is created between those who follow local (Hindu) customs and those who don't (these could be Hindus or non-Hindus). Anecdotes and storytelling have a large part to play in making members of a community toe the line. One such anecdote, narrated by a fisherman from Shiroda, is as follows:

> *"Our village has a rule where from 7th June, until Narali Poornima [Hindu festival in the month of August] we do not go and fish. Fishing opens only after we pray at the temple and sacrifice a cock. There are some people who are religious but don't believe in the fishing rules. If such people fish [during the prohibited time] none of us helps them if something happens to them while they are out at sea, or if they fall ill. There was this one man, who always went against this rule and insisted on going fishing. So he went out to sea and he started vomiting blood, he came back to shore, and was taken to the hospital, but that time the vomiting stopped. No medicine was given to*

him, no treatment was done, still the vomiting stopped. Doctors said there was nothing wrong with him! The same person, went back again to sea, two years later, came back to the shore and became paralyzed. So these things have experienced, when people go in spite of the rules. There was another man that went out to sea, came back to shore and died of heart attack."

This anecdote reveals several layers of interdependence. Primarily, fisher folk are dependent on each other when they go to sea, because accessing rescue and emergency services provided by the government is difficult for multiple reasons. Sixty five percent of the fishermen surveyed did not know emergency numbers, and were not sure if there were any rescue services that they could avail if they were stranded at sea. Even if they were to reach official rescuers, informants would often find it difficult to describe the location of a stranded vessel because many vessels do not have GPS units. Most fishermen use low-tech methods of describing location, such as depth and bearing from a landmark. Fishermen prefer to depend on other fishing boats, because they would find it easier to locate the stranded vessel, particularly in the absence of GPS co-ordinates. Those who are aware of the existence of emergency services claim that it would take too long to mobilize a government rescue effort. They always prefer local help. In case of stranding or trouble at sea, therefore, fishermen need to have a community on which to rely. The threat of social ostracism due to non-participation in local customs could mean the difference between life and death at sea.

A second part of this anecdote is the implication of constant monitoring. Every non-conformist action is noted and punished, even if the punishment in the story is not meted out by community members. The mystical symptoms and illnesses reveal a suggestion that the protective deity is on the side of the community and will therefore punish those who go against the community. Stories such as the one told above may

not be true, but play a large role in warning younger members to follow the rules.

Local superstitions and beliefs in village or sea deities play an important role in uniting fishermen and ensuring adherence to rules. A gill net fisherman from Mooth says,

> *To be a part of this village you need to adhere to certain rules. Since the Gods of our village have protected us for generations, this is the least we can do to show respect. So far there has never been an accidental death in our village, so far. We do it so everyone gets an equal opportunity. In the last few years a lot of the Koli* [fishing caste from the north] *people have become homeless because they stopped adhering to tradition. This never happened to them before. In our village the deity protects everyone who comes to our village. Someone's guest had come from Mumbai and went into the sea nearly drowned, but he felt hands pushing him up so that he survived. This is the work of our God. So many people come during Ganapathi,* [major Hindu festival celebrated in the area] *and they swim in the sea, but so far no one has died. It is not painless, you can get water in your lungs but you will survive. It is for this protection that we follow all the rules*.

Communities that transcend the perceived boundaries of religion and caste cannot be explained when we focus on community only as an outcome of commonality. In this case, participation in community entails practices that highlight being-in-common. Turning again to Nancy is useful, particularly in this context of safety at sea and fishers awareness of very real mortal danger. Indeed, Nancy (1991) offers death as a motif in the recognition of community. Since community is not the experience of an individual, but is something experienced through others, death is an experience that reveals community. By this he means that recognition of mortality is something that allows people to transcend their individualism. This factor is extremely relevant to a dangerous occupation like marine fishing, particularly in India where safety standards are low, and very few boats are fitted with safety equipment. Since safety cannot be guaranteed by equipment or official rescue patrols, people turn to each other through

the medium of local deities despite their religious diversity.

Local deities are considered to be particularly powerful, since they are seen as having the power to protect the village and control the sea. Belief in the local deity must be demonstrated by adherence to rules, even in relationships of unequal power. The expectation of adherence transcends religion, as exemplified by this statement by a small-scale, artisanal gill-net fisherman from northern Ratnagiri district

> "*On Ramnavami* [Hindu festival] *no fishermen, irrespective of religion, goes to sea for fishing, and if he goes for fishing he [will be] fined by the community. The profit that he makes by selling those fish has to be donated for welfare of the community.*"

The fine, given in the name of the deity, is produced to compensate the community that believes in pleasing the deity. Surpluses generated from misusing the commons are expected to be shared in order to retain access to the commons. Since relationships of unequal power could undermine community (McCay and Jentoft, 1998), these fishermen have developed a discourse linking compliance with local rules to the power of local deities to protect from death, in order to unify and ensure conformance with community rules. These commons, therefore, are organized relative to regulating access rather than wealth distribution. In fact, Durrenberger and Palsson (1987) identify common property rights as developing in stratified societies rather than truly egalitarian societies, because truly equal access will not need to be regulated.

Articulation with urban areas, markets and technological change

The design principles suggest that low articulation with external markets and gradual rates of technological change are characteristics of successful commons management. The fisher folk in my study are relatively well educated and linked to urban markets.

About 30% of Ratnagiri's fisher folk and 50% of Sindhudurg's fishing population is educated at least up to the high school level. A retired fisherman, who used to participate in shore-seining operations, said, "*I have two sons, one has gone to Pune* [a big city nearby] *and studied to be an engineer. The other is into fishing.*" His statement reveals not only the access to education and means to exit the fishery that these fisher folk have, but also the economic connections and networks that they have with large cities in the state. In fact, most fishing families have relatives in the capital of Maharashtra, Mumbai, as well as the next largest city, Pune. I encountered their urban relatives while attending weddings of fishermen. When schools were closed for summer vacations the city-folk came to stay in the villages with their relatives. Almost every fisherman whose house I visited in the summer had relatives from the cities visiting. A fisherman from Shiroda said,

> "*I was in school for 16 years and then my father sent me to my uncle's house, so I could work in Bombay* [Mumbai]. *When I was in Bombay* [Mumbai] *for my job, my father built a trawler. While I was in Bombay* [Mumbai] *I got into bad company, so my father called me back to get into the fishing business.*"

Many of these fishermen have thus visited the big cities, seen how fishing and fish trade is conducted there and are in contact with urban fish exporters. Thus the principle of low articulation with external markets does not apply to these fisheries.

Despite this level of linkage, some fishing communities maintain an ethic associated with community economies (Gibson-Graham, 2006) by catering not only to export markets but also to local markets. A community in southern Sindhudurg operates an exclusive morning market that is open to buyers from local and export markets. However, the catch being sold is restricted to that brought in by non-mechanized vessel operators. Smaller and lower value fish are handled by female traders, who

may be related to the fishermen who brought the catch. Despite being excluded from the market as sellers, mechanized boat owners participate in this market as buyers. High value catch enters the male dominated domain of export, through two large markets for fish trade, namely Mumbai, Maharashtra and Madgaon, Goa, via the National Highway 17 and state highway MSH 04. Similarly, female fish traders participate in the exclusive mechanized boat market as buyers and set up their fish stalls on the periphery, in order to supply local consumers. That members of commons institutions engage with capitalist enterprises for trade while still fore fronting issues of equal access to profit via regulating access to markets can be explained by the notion that economic practices are inherently social (Gibson-Graham, 2006). Such fishermen's attitudes towards profit are exemplified by the response I obtained from one community member when I asked why it seemed that fishermen from this community spent far less time fishing than those from other Indian states where I had conducted research. He said,

> *"Do you think being out at sea is all fun? It is hot, dirty and tiring, and I would like to come home to sleep in my own bed. If I was only interested in money, then I would also be out there fishing for three days continuously like those Tamil Nadu fishermen."*

Participating in these fishing communities also affects the way that fishermen access capital. A trawl boat owner's statement about how he got the capital to build his boat exemplifies the stand of many fishing communities, *"The government gives subsidies to groups or societies, but I haven't taken any. I preferred to take help from moneylenders or benevolent individuals."* Thus being part of the fishing community, for some, entails remaining quite separated from banking or government recognized institutions. Those who have approached banks often do not conform to expected lending behavior. A trawl fisherman from Harnai says, *"We can't get any loans from*

the [local] *bank because some fishermen took loans and did not pay back, so the bank has stopped giving loans to fishermen.*" As a result of banks lumping all fishermen from that area into the category of defaulters, now none of them can access formal financial institutions. This has meant that they have had to create separate, informal credit mechanisms, thus indirectly creating a boundary between those with and without access to large quantities of capital.

Technological change has exacerbated this issue of access to capital by bringing locals, who belong to non-fishing castes, into the fishery. Boat owners from fishing castes generally use shore-seines, gill nets, cast nets and hooks, while some have transitioned into using trawl-nets and a few have ventured into mini-purse. Other types of fishing gear like the dol nets have now disappeared, although some older fishermen remember using them. Boat owners from non-fishing castes almost exclusively use trawl and purse-nets, although some of these boats also carry gill nets. Most laborers from both fishing and non-fishing castes operate trawl, purse nets and gill nets. Non-fishing caste locals in the fishery may own boats, but they rarely if ever, go fishing themselves. Large capital investments in mechanized fishing vessels have changed the social profile of fisher folk and this is reflected in the change in type of fishing vessels used. There are over 2000 mechanized trawl boats registered in Ratnagiri and a similar number of non-motorized vessels and vessels with outboard motors (Government of India, 2010). There are over 500 mechanized trawl boats registered in Sindhudurg with more than double that number of non-motorized vessels and vessels with outboard motors (*ibid)*. In the last decade purse-seines have been adopted and adapted in the form of mini-purse operations. These are modified small fishing vessels that can operate small purse-seining nets. Mini-purse operations

necessitate a profit oriented operation due to the sheer number of people involved. A single operation might need to employ around 35 Fishworkers. A mini-purse operator in Shiroda says,

> *"I have used mini-purse for eight years. Personally, I don't believe in purse seines, and nor do the others in this village, but purse-seiners from other states were coming to our coast and taking all our fish. We tried complaining to government officials, again and again, but nothing happened except that we got tired, so we started purse netting so that we could catch our fish before the other state fishermen came. Even now if the government bans mini-purse I am ready to stop. I know it is bad for fishing in the long run but the only way I could compete with the outsiders was to start mini-purse myself."*

This statement indicates the sentiment of most of the fishermen who chose to adopt the purse-seine technology. They express some amount of ethical qualms about using the technology, but maintain that they need to use it to remain economically competitive. Using the purse-seine has now become a way to mark one as being an outsider to some fishing communities.

Some fishing communities have developed rules to prevent mini-purse operations. In doing so, they have brought together fishermen operating non-mechanized vessels and trawl-net (a type of mechanized) vessels. The reasoning used by these communities is that trawl-nets are an older technology, and have therefore become a part of the seascape. Trawl owners who actively participate in mini-purse bans adhere to fishing community rules and norms. A trawl operator from Harne says, *"The government should ban mini-purse because a single purse net catches the fish meant for 10-12 boats. What should the local fishermen do in this situation?"*.

Another trawl operator from Ratnagiri says,

> *"In our territory mini-purse is not allowed. People from the village cannot mini-purse but others from outside come to these waters. If outsiders fish in your area, you will obviously get offended because it is your business that is getting affected."*

Mini-purse usage has become a boundary making activity, since the distinction between member and outsider can be made by the type of fishing gear used.

Relationship with state fisheries actors

Conflict between fishermen regarding purse-seine and mini-purse operations also reveals the interactions between government and fishing communities. Purse-seining is perceived by fishermen as the government's move to push fishing castes out of the fishery. Unlike in the 1980s when the government introduced schemes to subsidize and promote trawl-nets, no large subsidies were offered on purse-seines in Maharashtra. However, the technology had been promoted through government schemes in the neighboring states of Karnataka and Kerala (Humeed and Mukundan, 1991). Later, the technology came to be adopted by private interests in Maharashtra, restricting access to those with capital. People with the ability to independently access capital were generally from outside fishing castes or communities. This involvement of 'outsiders' in the fishery created a lot of conflict. A fisherman from Malvan says,

> *"For the fishing community at the most they are able to invest in trawler. For purse-seining you need 30-35 people to run a purse-net, plus you need to buy the really expensive gear, so that makes it impossible for people from the fishing community. You need capital in order to do it and only the jewelers and others have this capital. They can afford to have these boats because they have other sources of income, because during bad years that they can fall back on their other income."*

Inshore purse-net operations were banned by the government in Maharashtra in 1999 (Karnad et al., 2014) as a means to provide opportunities for users of other fishing gear to sustain their livelihoods. The government's means to regulate purse-seine fishing was to restrict the number of ports from which purse-seining vessels could operate. The groups interested in purse-seining responded by adopting mini-purse.

While the operations of purse-seines are regulated by orders under the Maharashtra State Fisheries Act (1961), mini-purse operations are not mentioned. A gill-net operator from Harnai says,

> *"Mini-purse vessels go over and break our nets even if we signal them to move aside. They take away as much catch at one time as 100 gill-net fishermen so obviously the amount of catch that we are going to get in the future will reduce. Our villagers try to do something about it, but the boats usually belong to politicians, so what can we do? Even if they cut our nets and cause damage we can't go to anyone* [outside] *for compensation because they don't pay heed to us."*

In addition to the equity argument, fishermen also make ecological arguments against mini-purse. Another gill-net operator from Harnai feels,

> *"Government should ban mini-purse as a way to develop fisheries. Purse nets kill the smallest of the small fish and their eggs. Consequently the fisheries are depleted. A gill net's mesh size is relatively big but purse seines have very small mesh. Because of this villagers have gone to the government with complaints and protests but no one pays attention."*

Despite communities taking on this issue of mini-purse, there is a sense that the government needs to get involved to regulate the usage of this fishing gear. In 18 of the 26 villages I studied, respondents cited the need for government involvement in banning mini-purse. This implied that fishing community rule enforcement had a low impact on mini-purse usage. An observation that I made was that most mini-purse operations are staffed by migrant laborers, who disregard or are ignorant of local rules and norms. However, community members assured me that they were able to penalize the owners of individual mini-purse boats which entered their fishing territory. More details on this are available in Chapter 4.

While fishing communities are able to ensure that mini-purses are generally not used in their fishing territories, community members are upset that mini-purse are being used at all. The perception is that migratory fish, like oil sardines, are being caught by

mini-purse even before they can enter a community's territory. It is to stop the

cornering of resources outside their territories that they seek government intervention.

One way in which fishing communities try to gain the government's attention about

the issue of mini-purse is by declaring a strike. They are particularly interested in the

involvement of the fisheries department and the police department, since these are the

two authorized bodies who could penalize them for preventing mini-purse operations.

During one such strike, the fishing community declared a one day closure of fish

markets and the town. Fishermen and women marched from the beach in front of their

village to the government offices (Fisheries Department and Police Station) in the

centre of the town shouting slogans and holding placards. When asked about the

reason for the strike, one participant said,

> *"It is to highlight the issue of mini-purse operations in inshore waters, and to tell the fisheries department that we [members of the organization] know that it is ecologically unsustainable. We oppose these operations and they [fisheries department] should support our cause".*

The slogans identified purse nets as a threat to small-scale fishermen and equated

mini-purse with purse-net operations. In addition, community building slogans were

used that spoke about the unity of non-users of mini-purse and their firm resolve to

ban unsustainable fishing from 'their' waters. This was clearly a tool for commoning,

which required the fisheries department to recognize them as a group as well as their

rights to use a fishing territory.

One of the reasons that this effort to force a ban on mini-purse has not been very

effective is that not all fishing communities are comfortable with government

involvement. A gill net fisherman from Paj says,

"In cases of conflict between banned gear operated within our fishing territories we do not go to government. If we ask them to limit the outsiders then we will also not be able to go beyond the limits they prescribe for us. If we personally beat up those fishermen then we will be in trouble, due to the politics of the situation. That's why we sort out the problem by asking the whole fishing community to look into the matter."

Approaching the government to solve fishing conflicts requires relinquishing all control over the proceedings and the outcome. The fear of these fishing communities is that formal or legal procedure would require that a judge or government official, who is not familiar with the local situation or the fishery, be given the authority to make decisions. Governments also exclude fishermen through practices, such as the use of written rather than oral tradition. Although a large proportion of the fishing community is literate, they have only basic levels of education. They prefer to avoid having to read and write lengthy documents. A fisherman from Malvan says, *"I have been to school, but reading all those government forms and documents is too much."* This inability to read is also coupled with an unwillingness to engage with government bureaucracy. Reading and writing are seen as characteristic of the realm of bureaucracy and outsiders.

The rejection of government process and bureaucracy is a unifying feature across class, caste and religious diversity. This has been documented as a commoning activity in previous studies (e.g. Taylor, 1987, although he did not use the term commoning). Taylor found that unofficial fishing communities in Ireland were defined in opposition to outsiders. Co-operation and egalitarianism was enacted within these Irish fishing communities only in relation to the threat posed by authorities, such as the government, to their rights. In my study, communities preferred local process to legal process. A fisherman from Paj-Pandhari says, *"We*

seek the advice of village elders to deal with any problems in our community.

Everyone listens to their decision and it is accepted by all people in village." Such

people are seen as having more relevant experience and expertise in dealing with

conflicts in that fishing community. This sentiment was echoed by a trawl fisherman

in Dapoli. In some communities, elders from different religious and political

affiliations would deliberate on issues together in order to reach a consensus. Their

decision would then be accepted by all members.

Rejection of formal or government processes also characterizes the relationships

between boat owners and crew. A trawl boat owner from Harnai says,

> "*We cannot make any legal agreements [*with our crew]*, because this is a business of trust. All the agreements are done by word of mouth. If we propose any legal agreements, then the crew will ask – Don't you trust us? - If we make legal agreements for workers, they won't want to work for us*."

The way that the fisheries function is thus illegible to the government. With a lack of

legal agreements, it would be impossible for government officials to adjudicate

disputes. Instead the fishing communities have created their own processes for these

issues. A fisherman from who participated in the decision making meeting explains,

> "*If we want to decide about what nets to use or other fisheries related issues, we fishermen have a meeting on the beach. If decisions about rates [price] of fishes or issues with particular trawl labourers have to be made, then the fisheries society committee members have their meeting in the society building*."

Details about fisheries societies and their distinction from fishing communities are

available in Chapter 2.

Revealing the practices of fishing communities

The description above suggests that the fishing communities of Ratnagiri and

Sindhudurg are fluid entities, changing membership and making new boundaries with

every change in the fishery. This implies that defining and recognizing them ought to be difficult. However, their spatial and cultural form is revealed through practices of territoriality, gear usage, types of economic relationships, types of decision making, and through the recognition given to them by outsiders. The fisheries of Ratnagiri and Sindhudurg exhibit conditions that research has demonstrated as triggering the emergence of commons management, namely perceived risk of losing access to a valuable resource (McCay, 2002), and actual competition or conflict over resources (Durrenberger and Palsson, 1987). That these fishing communities are involved in commons management becomes clear in the way they deal with conflict, make and enforce rules, and maintain their legitimacy. I examine the co-production of community and the commons in these fisheries, by discussing some important commoning activities below.

Territoriality

Nancy (1991) specifically addresses boundary making by suggesting that too inclusive a community becomes forced. His contention is that community is not work, not a project, it is a recognition of being. Therefore participation in community can only occur through realization of interdependence. In Ratnagiri and Sindhudurg this realization becomes visible in adherence to rules about fishing gear. These rules create spatial patterns of fishing gear usage that help demarcate communities. Physical boundaries of the fishing communities I studied are difficult to map because most fishermen I interviewed do not use maps or GPS readings to identify their location. 60% of respondents have lower than primary level education and are not comfortable reading, writing or orienting themselves to maps. They use a distance and bearing technique to identify location. However, while some refer to distance in terms of

nautical miles, others measure distance in terms of 'running hours', which is the

distance that their boat can cover on average, in an hour. Given the variety of boats

and engines used, this leads to a lot of variation among individuals regarding how

they map the space that they use to fish. Thus boundary making is not visible through

mapping in this region.

While this might suggest that communities in Sindhudurg and Ratnagiri are

inoperable, several fishermen speak of fishing territories. For instance, a gill net

fisherman from Paj-Pandhari says,

> "*No one uses purse seines in our area, they are used in the Malvan and
> Ratnagiri side. We don't use purse seines. The whole village and our fishing
> community took the decision not to allow the use of purse seines. No one forced
> us to ban it here*".

He clearly identifies a fishing territory as 'our area' and one of the ways in which this

territory becomes visible is through the ban on purse-seining. In this region, some

boundaries are made through regular negotiations regarding what types of fishing gear

were allowed by the institution, within their territory.

Territory becomes visible every time an unapproved fishing gear is used in the

vicinity. This is particularly visible in the conflict that has emerged around the use of

purse-nets. Chapter 4 describes the nature of this conflict in detail. These groups have

also established distinct territories to reduce overlap. For the unapproved gear user,

punishment can only be meted out once it is established that he was fishing within

another community's territory. This requires detailed discussion and negotiations, with

some areas considered indisputably within territory, e.g. the near shore waters

adjacent to the villages of the participants. Territoriality grows fuzzier with increasing

distance from shore and distance away from the village. In some places, underwater

markers such as rocks or reefs help solidify boundary claims, but in other cases,

boundaries need to be constantly made and remade through discussions, meetings and

conflicts.

Given the highly mobile nature of the marine species targeted by the fisheries, and the

significant overlaps in target for users of different fishing gear (Table 2), being in

common requires constant negotiations regarding the use of different parts of the sea.

The fishermen in these districts follow highly sought after, mobile, high value, pelagic

fish by negotiating use agreements with neighboring institutions through their

organizations. The effectiveness of these agreements is marked by the ability of the to

impose their rules on outsiders. For instance, a cast-net fisherman from Malvan says,

> "*We don't stop fishermen from Nivati [*neighboring community] *from fishing in our area. We also fish there, so they can come here. But they can't use their mini-purse here. When they come here, they should use a gill-net or something, like us*."

Territorial negotiations are not limited to so called small-scale fishermen. As

mentioned in the section about technological change, trawl fishermen are now

participating in commoning activities. This move can be read as emerging from a

position of competition over resources. Their inclusion in the fishing community is

evident from the language they use. Just like small-scale fishermen, trawl fishing

community members have now adopted social and ecological arguments in favor of

equity and sustainability. A trawl boat owner from Dapoli says, "*Decisions, like not to

use purse seines, are made by the village elders for the betterment of our fisheries*."

This shift in the social boundaries of community are discussed in Chapter 5. Thus the

practice of territoriality makes membership in fishing communities visible .

Meetings and decision making

Fishermen in 20 of the 26 villages I studied identify as participating in commons management, although they do not claim membership when asked directly about membership in any sort of fishing association or group. Instead they refer to participation in meetings where decisions are made about the usage of fishing gear and identification of fishing territory. These meetings are primarily attended by boat owners and some captains (*tandel*), with very little representation from paid laborers (*khalashi*). In the case of family operated fishing, these roles are not very distinct and an individual might play several roles simultaneously. Therefore every member of the family operated business has some level of decision making power and can participate in commons institutions. In boats run as investments, boat owners are a separate class, with many vessels staffed by migrant labour from surrounding areas or from the east coast of India. These laborers are not given any decision making powers and do not participate in commons management.

Decision making practices	Percentage of survey respondents
Consensus and majority	85%
Consultation with village elders	40%
Meetings in temples	75% in Sindhudurg
Meetings in community halls	50% in Ratnagiri

Table 4: The percentage of survey respondents who participated in notable decision making practices

A unique feature of these meetings is that decision making is characterized by consensus and majority decisions. Consulting with village elders is the next most important form of decision making. Generating consensus is highly dependent on practices of commoning, and often is a long drawn out process. Village meetings which have to end in consensus decisions often take up to 8 hours, with no breaks.

Crucially, these meetings take place in the local language, which was Marathi in northern Ratnagiri and Malvani in southern Sindhudurg, with slight variations in dialect in the intervening places. Use of the local language is again an important community building tool.

75% of the fishermen interviewed in Sindhudurg attended meetings in temples, while 50% of Ratnagiri respondents attended meetings in community halls. Participation in religious rituals was a hallmark of most of these meetings. In the Sindhudurg district respondents identified the meeting place as a temple that was thought to have a powerful temple deity or be important for historic reasons. The reasoning for the location had a lot to do with commoning. If the transgressors were not members of the community, their willingness to abide by the rulings of the group was assumed to be low. In addition, there could be power dynamics of caste, religion and economic status. The use of divine law/justice could overcome these sorts of problems. As an older fisherman from Dandi put it,

> *"Many of the conflicts occur out at sea. By the time everyone comes back to land to complain, it becomes like my word against yours. It is better that everyone answers to the* devta *(God of that temple). What can they say (in defense) if God is judging them?"*

Recognizing community as an outsider

The discussion so far has revolved around how communities are created through a being-in-common of the fishermen. I now address Nancy's comment that community "*is always revealed to others. Community is what takes place always through others and for others*" (1991; p15). By this Nancy is referring to the experience of community by its members, but I believe that a revealing of community can also be

experienced by all those who come into contact with the practices of commoning. Nancy recognizes this through his example of a joint suicide of lovers, identifying its symbolism as an act of communion, going beyond each of the individuals. He finds that this act exposes community, both to the members (in this case lovers) as well as to those outside. Thus practices of going beyond the individual and being-in-common allow community to be recognized also by academics and outsiders. For instance, Bavinck (2003) identifies spatial variance in the types of law forwarded or followed by different fisheries actors in Tamil Nadu state, India. He views this as a case of legal pluralism without an explicit discussion of community at work. However, his analysis that state legislation appears weak with respect to the actions of fishermen, and that the fishermen instead follow local rules, reveals practices of commoning.

In Ratnagiri and Sindhudurg district, state fisheries laws spatially regulate the use of fishing gear at the scale of the district. Despite this fishing communities regulate spatial use of fishing gear at the scale of groups of villages. While technically illegal, individual officers of the government appear to recognize the existence of these rules and the fact that they are created by communities. A fisheries officer, whom I interviewed regarding the ways in which fisher folk deal with fishing conflicts, said, *"The fishermen have some traditional rules, so we cannot get involved"*.

To these authorities, the production of community and commons becomes obvious through conflicts between different fishing groups. All the fisheries officers that I interviewed were aware of the current conflict between mini-purse operations and territorial behavior by fishing communities that want to ban mini-purse fishing. However, the officers claim an inability to get involved due to a lack of legislation

about mini-purse usage. Technically, they cannot prevent mini-purse operations in Maharashtra state waters unless they receive a government order to do so. At the same time, individual officers are unwilling to intervene on behalf of the mini-purse operators, who assert their legal right to fish unless officially banned. Some fisheries officers interpret their role as one of maintaining peace. They recognize the role of local institutions in conflict resolution, particularly in minimizing potential violence. An officer in Sindhudurg stated, *"They [*fishing communities*] usually keep having these sorts of conflicts, it is best to let them deal with it by themselves"*. This statement indicates that not only are fisheries officers in the regional offices aware of fishing community management, they identify it as an independent conflict resolution mechanism. Thus despite unsupportive legislation and policy, official practice offers a space for fishing commons and community.

Enacting egalitarianism

Finding a space in common with others is a continuously evolving process, as each individual and group interacts with changes in their situation relative to their families, other members, government agents, new technology, participation in collective activities and so on. The way that these fishing communities negotiate these changes is through the ritual of meetings, religious symbolism and fishing technology. These practices are tools that help to maintain a semblance of egalitarianism in a society that is actually quite heterogeneous. Egalitarianism is important to maintain relationships and linkages within the community. Unity over key issues is an important source of power for fisher folk, who are not very politically active and are somewhat disenfranchised in Maharashtra (although their situation is slightly better than that of fisher folk in neighboring states, like Gujarat). At the local level, coming together in

the fisheries of Ratnagiri and Sindhudurg allows small boat owners to confront large, more powerful boat owners, in cases of conflict. The politically connected or higher economic class boat owner is forced to pay heed to the community, because all the members stand united in the decisions taken.

Egalitarianism allows low cost punishment tools, such as social ostracism to become powerful deterrents to rule breaking. Practices that maintain egalitarianism include participation in rituals and contribution to common causes, such as the local temple, which are perceived as acts of individual sacrifice in order to be in common. As one Hindu institution member, referring to a Catholic member, commented, "*Even though he is a Christian, he still contributed to the temple. That makes him like a friend [well regarded]*". Identifying such practices of commoning within the local cultural context gives better indicators of community than static principles.

Conclusion

Different approaches to understanding the commons allow different types of commons and community to become visible. Nancy (1991) suggests that knowing the totality of a community is impossible both to members and outsiders, because community is a shared experience, and by definition sharing is an incomplete act. Thus the project is to reveal community, rather than to make community. This is the primary difference between this approach and Ostrom's approach. Revealing community in all its forms also allows us to imagine diverse sets of people participating in community , not necessarily limited to standard notions of which groups of people might associate to form a community. Due to the constantly negotiated and relational nature of individuals, characterizing individuals or groups in

categories of caste, religion, technology or modernity and prejudging their participation in community does not work to reveal their true nature. Rather than merely attributing deviants from the predictions of the design principles to causes such as cultural heterogeneity and political-economic factors, it is perhaps more useful to talk about the shared set of interests, practices and networks that create effective institutions (Ratner and Rivera, 2004).

Community is made visible in the fisheries of Ratnagiri and Sindhudurg districts through a series of practices that foreground being-in-common. These include the distribution of power by regulating access and sharing wealth, creating fishing territories, where consensus is generated through ritual, about the types of fishing gear and fishing practices in use, and participating in decision making. These practices allowed some types of difference to become irrelevant, such as caste, religion or economic status. Focusing on these practices allowed community to become visible among a variety of fishing groups. This allows us to transcend the traditional/modern binary and find community among users of trawl technology, as well as users of smaller, passive fishing gear. Further participation in these practices of commoning by "outsiders" allows them to be accepted, and creates a way for their interdependence to become visible. Some of the outcomes of these practices of commoning correspond with Ostrom's design principles, such as boundary making and institutional arrangements. Understanding these visible formations as outcomes rather than properties of community, helps us better understand how communities are created in the real world.

This chapter reveals how community is created despite hegemonic development

discourses that assign certain fishermen as traditional or modern, each with a prejudged propensity to participate in community. One of the most important revelations from the fisheries of Sindhudurg and Ratnagiri, is that discourses of difference, whether the traditional/modern binary, caste or religion, do not hold the power to mask community. The visible demonstrations of commoning serve to empower the community. Still the focus of this chapter has been largely on the human relationships in the fishery. Following Bresnihan (2015) and St. Martin (2006), my vision of fisheries brings together human and non-human relations. I develop the human-environment part of this picture by examining the actual system of rules that these fishing groups evolved to govern resource use. I examine this aspect of commoning further in the next chapter.

CHAPTER 4: Legal pluralism and customary law

This chapter examines the practices of commoning as a form of power. Through the lens of legal pluralism, it is possible to understand how commoning is legitimized and given authority. "Legal pluralism rediscovers the subversive power of suppressed discourses" (Teubner, 1991; p 1443). It resists the universalistic philosophy, norms and rules that characterize modern legal systems (Galanter, 1992). India's fishing legislation provides individual states the right to make fishing law in territorial waters, rather than the national government. What is common to the legislation of all the coastal states of India is the opening of sea access to multiple users. This forced

creation of open access has created the space for commoning to become visible. This chapter focuses on conflicts over access as a way to study the operation of power in the fishery.

Variable implementation and enforcement of state or national law, in comparison with community law raises the question of whether the state is the appropriate scale to decide fisheries legislation. This question has been raised by others, notably Bavinck (1996; 2001a; 2001b) who suggests that the operation of multiple legal systems at different scales of governance provides a good opportunity for co-management. My analysis of legal pluralism moves beyond questions of management. I use this literature as a way to understand how commoning is enabled. I ask if multiple legal systems allow people to transcend village boundaries, caste, religion and economic categories. Within their local context, I ask if community law can be understood as achieving universality by permitting practices of being-in-common, while still being a source of living law? I also analyze the interactions between state and informal legal systems, to identify how plurality has come to define the fishery, allowing actors to choose between overlapping legal systems in order to further their agendas.

My research speaks to a trend of major fishing conflict involving multiple legal systems in South Asia. I specifically address a new conflict that has developed between fishing communities and state fisheries management through the technological development and use of the purse-seine. This is a netting wall plied from a mechanized vessel and set to surround fish aggregations, particularly pelagic schooling fish, from the sides and underneath to prevent the fish from escaping (FAO, 2001b). Despite being ushered in through legal instruments and schemes initiated by

the nation-state, fishing community institutions in southern Maharashtra, India, have developed spatial practices of territoriality and technological practices of banning the use of the purse-seine to regulate their fisheries. Thus my research contributes to the growing body of work on power and conflict in the fisheries of South Asia, between users of passive fishing (gill nets, hand-lines), who are perceived as subsistence or artisanal fishers, and users of active technology (trawling and purse seining), perceived as industrial, and more powerful fishers (Pomeroy et al., 2007). I use an event of conflict with purse-seines as a starting point to describe the practices of one such group of fisher folk and to identify their capacity to be considered an alternate legal system. I also examine the ways in which the fisher folk create and reinforce authority and the extent to which this authority is seen as legitimate. Finally, I examine whether these legal systems function as a tool to structure fishing communities, helping to define and make apparent who belongs and who doesn't.

In this chapter I see practices of territory making as acts of commoning. Practices involved in the creation and maintenance of fishing territories can be a means of establishing social relations and developing a sense of community (St. Martin, 2001; 2005). Through these practices relations of power also become visible. Making and enforcing property claims, within and between groups, depends on relations of power (Macpherson, 1978) and these relations are created, reproduced and maintained through daily interactions and activities. Power operates at two levels in these situations of conflicts between fishing communities. First, following Foucault (1982) the individual community-oriented subject contributes to constituting the power of the community through actions that produce outcomes that are desirable to the group. Second, the community exerts power through the practices, procedures and activities

of community legal institutions. These institutions wield power and create subjects through the provision of freedoms, while circumscribing individual choice and action (Foucault, 1982). In order to examine the functioning of different legal systems within the same geographical space I use the lens of legal pluralism to examine customary fishing rules in southern Maharashtra's marine fisheries. Analyzing customary law as a legal system affords the advantage of being able to theoretically set aside inequalities of power between different groups in order to compare aspects of these systems (von Benda Beckmann, 2003). This helps me avoid using stereotypical associations, such as treating customary institutions as traditional, or viewing industrial fishermen as economically rational or powerful. This perspective enables me to view the regulation of the fisheries as emergent rather than historical or traditional.

Legal pluralism and India

Despite a naturalized association between law and nation-state, this association is relatively recent. Tamanaha (2008) points to a "jumble" of different types of law in Europe during the Medieval period, which shifted to centralized or consolidated legal systems during the emergence of nation-states. Legal pluralism is "a *condition whereby different legal systems apply to identical situations and legal jurisdictions"* (Bavinck and Gupta, 2014; p 80). Pluralism has been suppressed by the association of law with nation-state in many European countries, but continues to be visible in nations subject to colonialism. Under conditions of legal pluralism, individuals can choose between multiple frameworks to support their claims to property rights (Meinzen-Dick and Pradhan, 2002). Apropos such situations, Griffiths (1986) identifies legal pluralism as a source of conflict. In particular, Griffiths points to the

elevation of custom into law by the state, and identifies the power struggle that could

ensue from choosing the customs of one sub-group over another. The latter, as

subjects of an external or foreign law, could choose not to recognize its validity. In the

interest of maintaining peace, nations ought to promote a single legal system.

However, doing so when laws do not correspond well to local conditions of diversity

and difference could also create conflict.

India's modern legal system is deeply influenced by plurality, due to the country's

historical heterogeneity and differentiated society (Baxi, 1986). Galanter (1992)

describes the existence of multiple and overlapping legal systems at the local level to

manage religious and culturally diverse populations in the pre-British era kingdoms

that make up present-day India. In addition to these legal systems that took their

authority from the power of a sovereign, there were other customary legal systems.

This was often because no central authority could impose the law of the capital in

villages that were deep in the countryside (Galanter, 1992). Guha (2002) shows that

pre-colonial communities in Maharashtra, India, had evolved customary institutions to

protect their rights over common grazing land, despite property claims exerted by

local rulers. These institutions developed objectified, normative means of managing

individual members' grazing autonomy through designated resource monitors,

development and enforcement of village rules and so on. The existence of such

historical legal systems contradicts perceptions of lawlessness or open access prior to

the establishment of British or modern legislation. Such customary law making

continues to be noted in Indian fisheries (e.g. Bavinck, 2001; Kurien and Vijayan,

1995; Lobe and Berkes, 2004).

Until the 1860s even the British applied indigenous and imported law unevenly in India (Galanter, 1992). In colonial India, laws imposed by colonial powers focused on individual property, while customary law dealt with group rights and personal matters (Fullerton Joireman, 2006). Fullerton Joireman argues that customary law was cultivated, rather than preserved, to deal with those issues outside the realm of common law, in such a way as to serve the interest of the colonial power. Thus, she claims, colonialism promoted multiple and distinct bodies of law with differential application to different populations. A consolidated legal system was setup in India only after the British Crown took control of the colony. State legislation in modern India has arisen from a combination of British law and Anglo-Indian law that was imposed on societies in addition to customary and religious law (Dhavan, 1992). As a result India now has a dualistic or colonial type of legal system where official law is appropriate for the processes of governing but far removed from local concerns (Galanter, 1992). To address this disconnect, the nation has taken the approach of developing a hybrid legal system, which recognizes civil law, common law and religious law (Moog, 2008). Thus plurality is built into the state's legal mechanism. However, in order to be recognized, these alternate legal systems had to be translated to fit the needs and processes of the modern legal system. Traditional law often relies on persuasion and examples to gain acceptance and power, but these methods are too slow and irregular to appeal to powerful groups that aspire to make radical social transformations (Galanter, 1992). These processes are also not conducive to uniform application and nation building. Traditional laws had to become certain, definite, consistent and obligatory in order to be translated into the legal system left behind by the British (*ibid*). Galanter contends that this incorporation of traditional law, followed by a pre-determined, top-down imposition of state law on villages through

elected *panchayats* (village level governing bodies) has led to a widespread acceptance of national or modern law. However, he concedes that traditional notions of legality and methods of social change still persist in villages, but claims that they operate outside the modern legal system. This contention is challenged by state-sponsored initiatives to develop alternates to the existing judicial and litigation system. By setting up informal tribunals, such as *lok adalats*, the state appears to recognize people's need for dispute resolution but their unwillingness to put themselves in the hands of lawyers, who are the most powerful actors in formal courts (Moog, 2008). Thus the state appears to implicitly recognize that there are lacunae in the modern legal system that can be filled by alternatives.

Defining an alternate legal system

Rousseau (1962) defined law as the universal condition of civil association. He considered that laws are applied in general and in the abstract, so they cannot consider particular actions within particular contexts. Variation between the presumed universality of law and actual practice was explained by finding that universal justice is a divine concept but amongst men law is a matter of mutual agreement. This divide between universal norms and law in practice continues to be debated in the fields of legal philosophy and legal anthropology (Marmor and Sarch, 2015). Legal positivism suggests that legality and law is determined by social practice, while its critics contend that legality involves a moral dimension (Green, 2009). From a legal positivist perspective, the law of a community can be identified through the presence of certain structures of governance, rather than content. Hart (1994) emphasized process and practice as the means by which law gained authority and legitimacy. Thus his perspective was of law originating in custom, such as who may have the authority

to decide disputes, what can be seen as binding reasons for decision, i.e. as sources of law, and how customs can change. While the focus of the definition was on institutional structure, he made a distinction between officials who maintained the standards of law and the general public who were subject to law. On the other hand critics of legal positivism, such as Dworkin (1986), felt that a legal system exists in a society only when principles are laid out in advance to guide the use of force over subjects. Thus moral and political ideals guide the development of the legal system, rather than officials.

Rather than engage in this debate, I use arguments from both sides to structure my definition of an alternate legal system. I follow Benda-Beckmann (2003) in analyzing law as a dimension of social organization. Because such an analysis could be critiqued as having the potential to view every form of social structure or restraint as law, Benda-Beckmann suggests looking for recognizable morphological structures that enable legal systems to be distinguished. These include institutionalization and systematization, the degree of differentiation of legal knowledge from everyday knowledge, the basic underlying legitimation of the legal system, the extent to which legal rules are mandatory, technology of transmission, the social and geographical scope, and the substantive content of the legal system. Accordingly, I analyzed data gathered from participation in community meetings and hearings about conflicts over fishing gear usage, open ended interviews with meeting participants and opportunistic observations of rule enforcement for these features. I use these data to understand how these customary legal systems achieve legitimacy across heterogeneous fishing groups. Through interviews with government officials I also analyze the limits of these institutions in managing their fisheries and their function as a complement to state fisheries legislation.

Alternate legal systems in India's fisheries

Marine fisheries are a realm where there is abundant evidence of alternate legal practices in India. Emerging from conflicts over access to resources, use of technology and moral economies, customary fishing rule making bodies have been described in the states of Tamil Nadu, Kerala, Goa, Andhra Pradesh and Gujarat (Paul, 2005; Bavinck, 2001; Bavinck *et al.,* 2013; Kurien and Vijayan, 1995). My review of this literature reveals three broad themes. First, folk law is generally associated with small-scale, artisanal or traditional fishermen. Despite identifying three overlapping set of interests in his study on fishing in the Coromandel Coast, India, Bavinck (2001) describes practices associated with folk law in relation to artisanal fishing villages. Paul (2005) describes the *kadakkodi* (sea-court*)* system in Kerala, as a fishing regulation system that was historical in origin, associated with users of non-mechanized fishing vessels and gear. He suggests that technological change, such as motorization and mechanization, influx of migrant labour and politicization of the fishing community lead to the decline of this system. Involvement of mechanized boat owners in the *kadakkodis* that persist are attributed to the fishermen's origin as traditional fishermen before they switched to mechanized fishing. While alternate legal systems are attributed a historical origin that is independent of the state, recent studies have begun to recognize the role of boat owners associations, from the mechanized sector, in developing some aspects of fisheries management. Novak and Axelrod (2016) describe caste-based boat owners associations from Tamil Nadu that play a role in conflict resolution but not in resource management. These associations maintain an independent identity from state fishing bodies. Stephen (2014) describes trawl boat owners associations in the Palk Bay, which are not caste-based, but have

created effective fishing rules aimed at restricting new entrants and further expansion of the fishery.

Second, community rules, where present are better enforced within a community than state regulations. Compliance with local rules had to do with the legitimacy that the local institutions achieved through cultural rituals, such as association with temples (Paul, 2005), association with caste (Bavinck, 2001b), kinship ties (ibid), occupational homogeneity (Thamizoli and Prabhakar, 2009) values of social justice and ecological sustainability (Bavinck, 1996; Johnson, 2006). Similar to studies on alternate legal systems developed by rural caste *panchayats*, many of the fishing legal systems are also described as being associated with a particular caste. Paul (2005) describes the persistence of caste-based *kadakkodis* associated with particular temples despite the influence of technology, politics and resource change. He attributes this to the culture of these close-knit, caste-based Hindu communities. On the other hand, he suggests that one of the reasons for non-occurrence of *kadakkodis* in southern Kerala is due to the top-down structure of the primarily Catholic fishing society there. Johnson (2015) describes caste-based *samaj* as the regulatory authority for small-scale fishing in the state of Gujarat. Despite weak evidence of regulations, mechanized boat owner associations that deal with dispute resolution and redress are found to be closely linked to the *samaj.* Novak and Axelrod (2016) find that fishermen choose to follow community rules rather than district legislation in Tamil Nadu, when communities are homogenous in terms of caste and fishing gear use. Bavinck (2001b) finds that local rules are structured along village spatial boundaries, with spatial networks of villages involved in conflict resolution.

Third, many studies describe customary law as weak or in decline with respect to conflicts in relation to state law. Disputes between different caste groups or between small-scale and industrial fishermen often invoke multiple legal systems. This forces these groups of fishermen to choose between legal systems in order to settle the dispute. Sonak et al. (2006) describe fishing communities in the state of Goa, as choosing to engage with the state, rather than relying on informal legal structures in such circumstances. In South Goa district, trawl owners allied themselves with the state (Fisheries Department) while small-scale fishermen allied themselves with environmental NGOs in order to settle a dispute about a monsoon fishing ban. These alliances were necessary because the two parties refused to recognize the authority of each other's rules, until the matter was finally settled in court (*ibid*). Such examples, as well as those that view alternate legal systems as traditional and historical (e.g. Kurien and Vijayan, 1995) suggest that traditional fishing institutions weaken in the face of state interventions. Cases where local rules of small-scale fishermen were recognized by state officials, as in the case of Ramnad district in the state of Tamil Nadu (Bavinck, 2003), reflect eagerness on the part of state officials to remain uninvolved in managing local affairs (Bavinck, pers comm). In the only other study that Bavinck et al. (2013) describe as showing alignment between government and fishing interests, non-state legal systems profess an inability to enforce their rules and suggest that the state ought to take charge of enforcement.

Locating Maharashtra state's legal pluralism

National law, namely the Territorial waters, Continental shelf, Exclusive economic zone and Other maritime zones Act (1976), defines India's marine ecosystem as public property. Individual or group property rights are not recognized in the case of fishing.

The only legally recognized fishing zones are the exclusive artisanal fishing zones

designated by each maritime state in India and the limits of territorial waters, which

designate the spatial limits of each state's marine fishing Act. The Maharashtra

Fishing Act (2015) states,

> "*nothing in [this Act] shall be considered as preventing the passage of any
> fishing vessel from, or to, the shore, through any specified area to, or from any
> area other than specified area, for the purpose of fishing in such other area or
> for any other purpose.*"

The Act also does not prevent or regulate fishing by vessels from any other Indian

state within its jurisdiction. Fishermen and the Fisheries Department of Maharashtra

refer to these sections of the Act to justify fishing across all zones in territorial waters.

By providing the right of passage to all vessels in all zones, and not regulating the

right of resource access to vessels from other states, within territorial waters

Maharashtra's marine Fishing Act (2015) has created the framework for an open

access regime. Customary fishing territories or tenures, which provide access and use

rights to specific fishing groups and regulate the use of specific gears, have no legal

recognition and are in fact technically illegal.

State law has instituted other forms of fisheries regulations and interventions in the

fisheries. Studies have cited evidence of a lack of effective enforcement (e.g.

Boopendranath et al., 2010, Rajagopalan, 2008), and poor compliance (Karnad et al.,

2014) with these regulations. Fishermen perceive fishing co-operatives (including

some trawl owners associations) as government instituted bodies that serve mainly as

conduit for the NCDC loans to promote mechanized fishing (details about fishing co-

operatives in Chapter 2).

Date	Policy	State	Effect
1969	Gear subsidy	MH	
1978	NCDC loans for vessel purchase	MH	60% repayable loan at 9.5% interest
1981	Marine fishing regulation	MH	
1983	Trawl fishing restrictions	MH	inshore fishing restriction and ban on night trawls
1988	Mechanized fishery promotion	MH	a mix of subsidies and loans for motors
1995	NCDC loans for vessel purchase	MH	
1996	Trawl fishing restrictions	MH	Monsoon trawl ban
1997	NCDC loan for off shore vessels	MH	Loans for vessels with high power engines and on board coolers
1999	Purse-seine restrictions	MH	Inshore fishing restriction and port restrictions

Table 5: State fisheries policies and schemes.

Taken from Karnad *et al.* (2014). MH refers to Maharashtra. NCDC refers to the National Co-operative Development Corporation.

Non-mechanized fishermen do not recognize state legislation because it appears to promote mechanized fishing, through incentives, at the cost of other types of fishing, due to lack of enforcement of regulations. Bavinck and Gupta (2014) suggest that multiple legal systems may co-exist due to the conflicting outcomes desired by different groups of actors within the same system. It is not surprising therefore that perception that the government promotes some types of fishing and fishermen at the cost of others serves to enhance the legitimacy of customary institutions.

Conflict with purse-seines

In December 2014, practices of commoning made the community visible in some fishing villages on the Sindhudurg coast of Maharashtra state, India, through a conflict between purse-seine operators and the users of other fishing gear. A group of

fishermen consisting of gill net, hand-line, cast net and shore-seine operators (henceforth called the Brahmeshwar group) held a public hearing. Brahmeshwar group had membership from fishing villages spread over a distance of about 10 km (north-south) along the coast. Their waters were the inshore waters adjacent to all these villages. The Brahmeshwar group had strict rules about not allowing purse seining or trawl fishing within 5 km from shore. Additionally members of the Brahmeshwar group were not allowed to own or work on boats that operated these nets. However, fishermen from Junagad, a village about 10 km to the south, had been caught operating a purse-seine in 'the waters of Brahmeshwar group' (within 5 km from shore). This is a clear example of conflicting legal systems, since state fishing law permits purse-seine operations in these waters, as long as it is beyond 12 nautical miles from the coastline.

The Brahmeshwar group was so named due to the historically important Brahmeshwar temple that played an important role in these fisher folk's lives. Local legend stated that an important leader of the Maratha Empire had laid the foundation stone at the temple and thus this was an important temple for all fisher folk in that area. As a result, the village that housed the temple was designated as the head village. Meetings of the Brahmeshwar group were always held in the temple. On 6th December 2014, all members from all villages were summoned in the morning to the Brahmeshwar temple to hear the case of the purse-seine operated in their waters. Only fishermen gathered at the temple, while their wives and other family members went on with daily activities. As a result of attending the meeting all members lost out on that day of fishing. Since income in this fishery depended on the daily sale of catch, all participants in the meeting lost one day's profit or wages.

The meeting was conducted by village elders and relatively experienced, 'worldly' members. The latter were politically savvy, college educated men, who were seen as capable of mediating with "outsiders", including authorities, inland people, researchers etc. These people acted as facilitators, i.e. not making decisions themselves but structuring the proceedings and keeping the meeting on track. What was striking about this hearing is the absence of the standard authorities involved in penalization, adjudication or fisheries: the police, the judiciary and the fisheries department. The politically charged aspect of being forced to treat official authority as distinct from the subjects of law (Green, 2009) was kept at bay. The involvement of all participants in a relatively egalitarian manner allowed these proceedings to overcome the risk of law being remote from everyday concerns of the public (I*bid*). My experience with fishermen from this region has been that they love to talk, often rambling and telling tangential stories, unless they are stopped and asked to focus on the subject at hand. The meeting proceeded in this uncoordinated manner, except when these facilitators forced the crowd to focus on particular issues.

The temple hall was crowded with Brahmeshwar group members, who included those who used cast nets, small gill nets, large gill nets, hook and lines, and shore-seines. The owners of the purse seine (henceforth violators) were also 'invited' to the meeting, but confessed to attending because their net had been taken hostage. The violators were offered chairs at the meeting, while everyone else sat on the floor, or tables, stood along the walls or crowded the windows or doorway from outside the hall. This seating arrangement served a dual purpose. The violators were made to feel that they were being respected, since being offered a chair historically signifies higher status

compared to those seated on the floor or standing. It also allowed the violators to be seen by all participants, since everyone else was seated on the floor or standing outside the hall. First, the violators and the people who apprehended them were each allowed to tell their versions of the story. The violators claimed that they did not know they were in waters where purse seining is banned. Then the floor was thrown open for all to express their opinions about what had been said. The first thing that was established is where exactly they had been fishing. Fishermen identified territory using distance and bearing, where distance was often measured in running time, given an engine of particular horsepower. Additional markers, such as large rocks, small islands and underwater structures, such as reefs, were also used to identify territory. No maps, digital or otherwise, or other written records of fishing zones were available, thus excluding this form of knowledge from a state system that acknowledged only formalized data that was written or otherwise represented visually. This is another point of divergence from the state legal system, and one that allows greater participation by fishermen who are more comfortable identifying local landmarks verbally than areas on a map.

Once consensus was reached that the violators had been fishing in the group's territory, then the matter proceeded as to why they had been purse seining there. One part of the argument was to establish intent: that they knew about the group's stand against purse seining and did it anyway. The violators argued that they had no idea that purse-seining was banned by Brahmeshwar group because it was a legal fishing method in Maharashtra. To that some young gill netters replied, "*Don't tell me that you didn't know. Everyone knows. We have had this rule for so many years. I will go ask your brother and see if he knows*".

The second point was about why they did not stick to their territory. The argument was that each group had exclusive right to water adjacent to their villages, therefore the violators could have remained in the waters adjacent to their home village, Junagad, instead of drifting into the territory of Brahmeshwar. At each of these points the facilitators would take the lead in summarizing the main points, determining whether consensus was reached, moving the conversation to the next item on the agenda and then creating space for everyone to express their opinion. If particular people or groups were silent, the facilitators would call on them to participate or give their opinion.

Younger fishermen seemed to dominate the proceedings, often getting worked up or trying to pick fights, and the facilitators would step in to keep peace. Some of the young members also raised the issue that violations of the no-trawl, no-purse seine rule were becoming very common, therefore it might make sense for their group to start trawling/purse-seining. The facilitators then stepped in to remind everybody about their community values, the need to stick together on these decisions and the need to maintain order. They stressed that their identity as traditional fishermen involved a concern for the sea and its creatures and the destructive power of fishing gears like trawls and purse-seines. A statement by one facilitator represents this sentiment. He said,

> *"As traditional fishermen we have a unique understanding of how best to care for the sea. We know which fish are declining and why. We have even made representations to the government about the disappearance of hilsa, some catfish etc., but no one has paid attention".*

The bounds of community, in this case, were made visible through an appeal to

common identity in the form of 'traditional fishermen'. Participation in this community is also associated with normative ethics, such as deep, local knowledge of the sea in that area and commitments to conserving sea-life. There is also a clear distinction made between 'we' as part of this community and the government. The government is identified as holding the power to recognize their knowledge and conservation commitment, and the act of ignoring the community's claims further strengthens the boundaries between government and community. These actions clearly served to prevent the gathering from turning to individual economic rationality as a solution to threats to common property rights. In distinguishing themselves clearly as neither private capitalist entities nor associated with government, the facilitators identify the philosophical underpinnings of their customary law as very different from state legal philosophy.

Finally, the members were asked for their opinion on the punishment to be set for the violators. Despite threats of violence an amount considered equivalent to the income foregone was decided as a fine that was to be paid to the temple, which was used to compensate members who participated in the meeting and had to forgo fishing that day. The symbolism of payment to the temple invoked the idea of judgment not only by the participants from the community, but also from the local *devta* (god). Money had to be placed in front of the deity and counted in public view, so the *devta* and all the witnesses could decide if it was appropriate, and ensure that no-one was cheated. The money would usually be taken by the aggrieved person as compensation for the damage or injury. However, in this case it was decided that so much time had been spent on the meeting that all attendees would have to forego fishing that day, therefore the money had to compensate the aggrieved person and the other attendees. Members

who were absent in order to go fishing were punished by social ostracism and by foregoing any compensation received. Thus participation was immediately acknowledged and membership enforced by the expectation of attendance. Individuals, who chose to go fishing rather than participate in the meeting, were identified during the distribution of compensation and punishment (in the form of public embarrassment) was meted out swiftly. Thus going against community rules, by choosing to maximize individual utility, was not tolerated.

Structure of local legal systems

In order to examine whether my case study can be called an alternate legal system, I follow Benda-Beckmann's prescription for describing alternate legal systems. I analyze this case as displaying characteristics of institutionalization in their structure, having an underlying legal legitimacy based on the idea of exemplary action, mandatory rules which are transmitted orally. However this case differs from many legal systems in that the content of the rules refers only to fishing and not to every aspect of life, the geographic and social scope of each institution (with their own set of rules) is quite small (3-10 villages forming an institution) and there is no clear differentiation of legal from everyday knowledge. The December 2014 meeting reveals the structure of the local fisheries management system, because it follows patterns observed or described through interviews about other meetings. These meetings function not only for dispute resolution but also as authoritative enforcement mechanisms and means to come up with and change rules to meet changing needs and conditions. According to Benson (1989:5) a legal system is "an *enterprise* that results in an authoritative enforcement mechanism, a system of dispute resolution, and presumably a means of changing rules to meet the changing needs of the society".

Thus this system exemplified in the meetings can be considered an alternate legal system

The structure of the proceedings involves the reporting of an incident of conflict to important people in the village. In some villages, the important people are village elders, in others, they are people who are well regarded or who have a lot of political clout. These people are taken to represent authority, not in the sense of being vested with political power, but by developing moral authority based on their experience and actions. Members of a community are expected to perform duties of vigilance, monitoring and report transgressions. Village authorities would decide about the severity of the issue and could choose to take up the matter with authorities from the head village. A village could be the 'head village' for a variety of reasons, such as being home to politically connected or powerful fishermen, having a well-respected or historically significant temple or monument, or being larger in fishing population than the other villages. It was not necessarily the most spatially centrally located village. Minor rule-breaking was dealt with by individual members, but if the transgression was considered moderate to large a meeting would be held to hear the case. Moderate conflicts included disputes between members that could not be resolved by themselves, while large conflicts were issues that involved non-members, particularly users of mechanized fishing gear. The form of fisheries management of the Brahmeshwar group, with slight variations, was common to 20 out of the 26 villages that I visited in the districts of Ratnagiri and Sindhudurg.

For moderate and large conflicts, a location in the head village would serve as the 'court'. For the Brahmeshwar group, their meeting place was the temple. Community

members would have to travel to the court in the head village to participate in meetings and this travel was not financially compensated. The role of village and head village authorities at the meeting was to facilitate the meeting, but not to serve as judges. Most institutions used consensus or majority forms of collective decision making. Following Benda-Beckmann's (2003) point about the differentiation of legal knowledge, legal knowledge was not restricted to or wielded only by village authorities. Instead, it stemmed from everyday knowledge and practices. At the same time community members allowed themselves to be subject to decisions taken at meetings that they did not attend. A head village could also conduct smaller meetings with not all members in attendance. Any decisions taken during these meetings would apply to all members, irrespective of their participation. Decisions taken at the smaller meetings that were attended only by representatives were accepted by the general body, if these decisions conformed to the local sense of social justice, or if they were approved by village elders and authorities. For instance, after the public hearing in December 2014, a few fishermen from Brahmeshwar decided to shut down the fish markets in a show of protest, against purse-seine use, on the following day. This information was transmitted to group members in other villages, who followed the directive and did not land fish the next day. When asked why they followed the directive, despite the obvious economic loss, one fisherman responded, "*They (the head village) told us, and so we followed. We feel that what they are saying is right. These trawlers and purse seiners fish everywhere, even though they know that there is a (local) rule that they shouldn't fish here. They (the head village) are also sacrificing, and we are all one (community)*". Merriam (1975) identifies a similar rhetoric in Hindu philosophy, in which adversaries need to be swayed by one's willingness to suffer. In fact MK Gandhi's use of exemplary action stemmed from his

understanding of the effectiveness of this philosophy to unify and organize illiterate (and unexposed to western ideas) peasants (*ibid*). In choosing tools to fight British colonialism, Gandhi rejected western philosophy, choosing to use the indigenous concept of the exemplar, rather than the western concept of principles (Bilgrami, 2003). Galanter (1992) also recognized the role of example and persuasion in forming what Benda-Beckmann (2003) called the underlying legitimacy of most Indian customary legal systems. This concept of exemplar is embodied in the actions of the head village and village authorities. It is from these actions that the power and legitimacy of this legal system stems.

Transmission of rules is primarily oral (unlike those in Tamil Nadu, where it is also written (Bavinck, pers comm)). The identification of fishing territory is a clear example of how written records are not kept or used. The spatial dimension of fishing is only spoken of using terms like "our waters" and "outside". These spaces are marked by distance from a landmark and bearing, or with reference to underwater features. There is no recognition of the zones created by state legislation. Government terms like "state waters", "territorial waters", "exclusive economic zone", "Indian waters" and so on are never used in connection with fishing territory. Technology, such as GPS, is used by some fishermen in these villages, to mark their own fishing paths and areas, but is never used in connection with demarcating territory. Fishermen find it difficult to orient to maps and prefer not to use latitude and longitude when describing their fishing territories. Despite this, territory was relatively undisputed across the villages visited in Sindhudurg. There was an almost perfect match between a fisherman's stated fishing area and the group to which he belonged in Sindhudurg. Territory is a much more fuzzy concept in the Ratnagiri villages, particularly since a

majority of the trawl fishing groups occur in Ratnagiri. Most trawl owners claim not to have fishing territories. Those who speak about preferred fishing areas identify these areas as all the marine area within the district. Some also mention being legally allowed to fish within state waters. However, some trawl owners associations mention defending their fishing space (surrounding their village) from "outsiders" i.e. non-members of their community, particularly fishing boats from other states. This reveals the existence of territoriality amongst some trawl owner associations, despite them not using the same language to speak about it.

Oral transmission has allowed for a context-dependent diversity of rules to develop. This can be seen in the rules concerning permitted fishing gear. Rules vary depending on the fishing community involved. Some groups, like Brahmeshwar, which comprises mainly of non-mechanized fishermen, ban their members from buying or operating trawl nets and purse-seines. This means that members cannot act as crew members on trawl or purse-seine vessels. Other groups only ban the ownership of these fishing gears and are not as strict about their members becoming labour on vessels that use such fishing gear in nearby villages. Trawl owner associations in the Ratnagiri district only defend their territory against trawl and purse seines operated by "outsiders" but do not mind gill nets being operated by "outsiders".

Another identifier noted by Benda-Beckmann (2003) is the extent to which rules are seen as mandatory. Failure to adhere to local rules results in various forms of social and financial sanctions. Sanctions for minor rule violations often take the form of public embarrassment. For instance, a member who did not attend a meeting was publicly embarrassed at the fish market the next day. Members who ignore fishing

closures can receive sanctions ranging from public embarrassment and emotional blackmail to social ostracism. Members who break rules about fishing gear could find the fish market closed to their catch, forcing them to travel longer distances in order to sell. The most stringent punishment is excommunication. Being asked to leave the community means that markets could remain closed to that individual, he will not receive the protection of the community during emergencies at sea, he will not be able to access the meetings in case of conflicts etc. This is quite a serious threat to a fisherman who is not well-versed with alternative ways to gain social and financial support, such as approaching banks for loans or courts to resolve conflicts. Repercussions for non-members are also varied, while less socially threatening there is a greater threat of physical violence. Communities generally fine non-members , and decide the amount of the fine at the meetings. If the non-member is from a nearby village or from a recognized fishing group elsewhere, a community may request them to offer food or other forms of compensation. Non-members who continue to break rules run the risk of facing violent repercussions, immediate or implied. This includes cutting nets, sabotaging boats and physical altercations. Thus rules are mandatory for members of a community, but less so for outsiders. This is reflected in the degree to members and non-members comply with rules.

My analysis of the scope and substantive content of these customary fishing legal systems reveals that communities emphasize establishing and reinforcing common property rights to withdrawal and exclusion. Centralized fishing legislation does not restrict fishermen's' movement or recognize boundaries, making the enforcement of private property rights, where fish (the resources) are extremely mobile, largely invisible to the eye and sometimes migratory, difficult. As mentioned earlier, while such boundary making is increasingly possible given geo-positioning devices and

related technologies, these are infrequently used in the Maharashtra fishing context.

Acheson (1987) showed that claims to exclusive rights to certain lobster territories in

the USA could not be enforced by individuals if the resources require large areas or

disparate habitats. Similarly the protection afforded by Maharashtra's customary

fishing institutions to common property claims suggests that privatization is

challenged by physical constraints that make individual costs of enforcing private

property claims too high to bear. In the absence of state regulation, Bavinck (2001)

goes so far as to suggest that fisher folk who are dependent on marine resources will,

under normal circumstances, always undertake action to regulate access and

withdrawal. This is contrary to rational assumptions of open access. While these

arguments suggest a rational explanation for the community rather than individual

orientation of customary legal systems, Vatn (2007) identifies rationality as context

dependent, suggesting that the values that one might want to protect may be social or

cooperative rather than individual. McCay and Jentoft (1998) point out that group

institutions to protect common property rights have also arisen in situations where co-

operation rather than competition defines people's interactions (see: St. Martin 2005).

The content of customary law has been developed and used by communities as a

community developing and structuring tool. For instance, the Brahmeshwar group's

argument centered around ensuring that group members had access to the resources

within their territory by exercising their community rights to withdrawal and

exclusion. Instead of structuring the argument around community, they could have

structured their argument around gear usage (mechanized versus non-mechanized)

and mentioned the state's fishing ban on operation of the purse-seine within 12

nautical miles from the shore, to support their stand. One of the reasons for avoiding

this line of argumentation is customary law allows for the inclusion of more complexity than a ban on a single fishing technology. Customary rules recognize local claims of withdrawal and exclusion of non-members, with respect to ethical concerns that they feel about equitable access, social justice and ecologically sustainable fishing. A member remarked, "*If one person uses a purse seine here, ten cast-netters will have to go without fish*". Thus there was an underlying rationale of equitable access to opportunities for profit. This statement also indicated their claim to the right to manage how much was withdrawn at a time, although this management was not measured in terms of actual quantity of fish. The burden of proof would also be entirely different if they approach the state.

Based on Benson's (1989) these customary management systems can be viewed as a legal system because they display characteristics of authoritative enforcement, dispute resolution and ability to adapt to society's changing needs. Viewing these as legal systems in their own right means that they need not be validated externally in order to be seen as broadly acceptable. This is particularly important in co-management situations where state law takes the position of being inflexible, while customary law has to be translated or molded to fit state legislative practices. The advantages of the customary legal systems that I studied lie in their flexibility and adaptability. They recognize no clear distinction between public and private life, and do not distinguish between civil and criminal law or procedures. Knowledge is not the domain of experts, but instead involves the vast majority of members. Decisions are made collectively, with an emphasis on consensus, and members are authorized to carry out punishments, such as social ostracism. Legitimacy is achieved through socially just action and adherence to locally upheld ethics. Power is exercised not only through a

threat of violence, but also through the threat of social boycott and reduction of economic opportunities, which are tailored to the local context. This power stands in contrast to other forms of power achieved through social differentiation of economic class or political clout. Since rules, territories and other outcomes of these institutions are not fixed in writing, folk law is more easily adaptable to changing norms and practices than standard legal systems. Thus legal systems are representative of "living law" (Brandeis, 1916) as they bridge the divide between the generality that has come to characterize state law and daily life. Customary legal systems fill a vacuum in state fisheries legislation by addressing local concerns at a scale that is both socially and culturally relevant to fishermen.

Recognition by the state

The ability of the Indian legal system to acknowledge or work with customary fishing law is limited by the structure of the state's marine fishing regulatory. India's state legal institutions are hard-pressed to deal with fisheries disputes because India's legal system, built on principles of colonial common law, originated to protect private property rights against the advances of the state (Fullerton Joireman, 2006). With the exception of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, there is no recognition of use rights outside the framework of public or private property. Thus enforcement of use rights in marine fisheries is a legal nightmare. Changing laws to suit fishing conditions is an extremely long-drawn out bureaucratic process. Bavinck (2003) identifies that administrative orders passed at the district level are better able to keep pace with the changing needs of the fisheries. Although administrative orders are easier to pass than trying to modify state laws, enforcement of these orders remains a challenge. The exception to

this is the monsoon fishing ban. In 2007 the national government of India declared a monsoon fishing ban along all four maritime states of the west coast of India from 15th June – 31st July. Fishermen from Maharashtra claim that the idea for this ban came from a traditional rule that banned fishing from the onset of the monsoon until Narali Poornima[3] (full moon day in the month of Shravan – July- August). The Maharashtra state government took into consideration the fishing community's tradition and extended the monsoon fishing ban until 15th August. Even so, most fishermen that I interviewed cited local tradition, rather than state law, as the reason that they do not fish in the monsoon.

Local institutions are adaptable, able to modify their rules and enforce them in response to changing technology and circumstances. The value of these alternate legal systems is recognized by government officials who are constantly confronted by the gaps between the state laws and daily issues that affect the livelihoods of the fishing communities. Fisheries officers from the regional fisheries department offices say, *"The fishermen have some traditional rules, so we cannot get involved"*. They recognize the dispute resolution and peace-keeping function of the local institutions when they have been unable to intervene due to the lack of legal basis for an intervention. They have also been unable to intervene due to lack of appropriate data, monitoring systems and so on. Customary law also allows the state officers to keep out of potentially messy, local squabbles. Such situations serve to further incite conflict and decrease the fishermen's confidence in the capacity and abilities of the official. When asked why they allow an alternate legal system to exist, when there are laws stating who gets to fish where and which gears are usable or banned, a Fisheries Officer from Sindhudurg responded, *"They usually keep having these sorts of*

conflicts, it is best to let them deal with it by themselves". Thus there is a clear niche that is being filled by legal pluralism.

Thus even though there is no formal, written recognition for these local management systems, government officials find it useful to recognize the jurisdiction of local institutions in practice for solving local-level issues and keeping the peace. Similar to the colonial policy of regulating matters of economic interest, but leaving social practices to be regulated by indigenous institutions, the Indian state turns a blind-eye to the existence of alternate legal systems to regulate fisheries. The lack of formal recognition can allow the state to change its position and forcefully impose rules at any time. This is probably the best course of action, because to try to incorporate these access, withdrawal and management based institutions into the formal legal framework could destroy the most useful aspects of these institutions – their local relevance and adaptability. It would also undermine their source of authority and legitimacy, since codifying cultural and religious practices would impose an artificial stasis on this ever-changing social landscape. Since the authority of the customary legal system stems from local customs, defining these customs without room for them to evolve, will erode their use as a basis of authority for the customary legal system.

Maharashtra's customary fishing legal systems

Fishing communities, like Brahmeshwar, are different from the caste-based panchayats and other forms of local legal authority previously described in the legal pluralism literature. Heterogeneity characterizes the customary legal systems of Ratnagiri and Sindhudurg's fisheries. Not all legal systems are developed by groups of artisanal, traditional fishermen. Informal fisheries management groups of trawl or

purse-seine operators exist in 15 of the 20 villages where such fishing gears are used.

One trawl owners association in Ratnagiri, consisting of Hindus and Muslims,

complies with the state ban on night trawling as well as religious fishing bans, such as

a 4 day closure for *Ganesh Chathurthi* (festival). They also used the rationale of

religion and culture to explain the monsoon ban on fishing, although they could have

just as easily used the rationale of the state ban, which coincides in timing. The

Maharashtra Fisheries Department bans fishing from 15[th]June – 15th August annually.

The trawl owners belonging to this group report a varying monsoon closure

depending on the onset of the monsoon, in the beginning of June, until *Narali*

Poornima (full moon day in the month of *Shravan* – July- August), meaning that the

ban lasts around 60 days. Citing adherence to local tradition, rather than adherence to

fisheries department bans, marks them out as being a member of a fishing community,

while being a trawl boat owner. Muslim members of the association participate in the

Hindu rituals that mark the beginning of the fishing season on *Narali Poornima.* This

ability to transcend religious diversity has not been observed in many other fishing

management groups across South Asia (e.g. Bavinck et al., 2013) but it characterizes

many of the groups in my study. In the Ramnathapuram district of Tamil Nadu state,

for example, the diversity of caste and religious groups in the fisheries appears to

have weakened the influence of community organizations over fisheries management

(Jentoft et al., 2009).

Reflecting the theme from the legal pluralism literature, compliance with a customary

legal system is high within the community that has developed that legal system.

Members of the Brahmeshwar group recognize and follow local rules and do not rely

on state laws. Even while members of the trawl owners association in Ratnagiri

recognize some state rules, such as the night ban on trawling, they rationalize their

support for these rules by using their own ethical arguments. Several trawl owners

said that the movement of mechanized vessels at night could endanger the lives of

fishermen in small boats without lights, or break passive nets (such as gill nets) that

are set out at night. The implication of such an accident would be that the small-scale

fisherman would take up the issue with his community. The motive of these trawl

owners was to avoid conflict and not get involved with dispute regulation mechanism

of the non-mechanized fishing community. Kurien and Vijayan's (1995) found that the

introduction of trawler technology weakened traditional fisheries management, but in

my case I find that customary law continue to exist alongside the introduction of trawl

technology. In fact some trawl owner associations in Ratnagiri and Sindhudurg appear

to recognize customary legal systems of non-mechanized fishermen, as well as

incorporate these customary forms while evolving new forms of fisheries

management. This is perhaps due to the way in which fishing technology was adopted

with many of the trawl owners being members of the fishing caste. They adopted

trawl and purse-seine technologies after encountering the nets while being used by

fisher folk from elsewhere. By virtue of being 'local' and part of the caste-based

community, trawl-boat owners who live in and around fishing villages, can thus

become subject to these customary legal systems.

Heterogeneity in terms of fishing technology used is also an important characteristic

of these legal systems. Members of Brahmeshwar group for instance, use a variety of

gill nets, cast nets, shore-seines and hooks on line. Despite being primarily non-

mechanized, these fishermen are not stereotypically artisanal and disconnected from

global markets. Some members are well connected to export markets through cities,

such as Mumbai and Madgaon. Thus customary law is not associated with traditional

fishermen in this case. Where these cases fit better with the literature is in terms of the

role that culture plays in building community compliance with customary law. In the

Brahmeshwar group, unlike some other groups, all members were Hindus allowing

for the temple to become a natural community meeting point. The invocation of the

divine served several purposes. The underlying philosophy was of being judged by

the divine within the holy premises of a temple. This was a common theme among

Hindu fishermen in the region, where several requested that I meet them at a temple

for an interview. The implication was that both the questioner and the respondent had

to be mindful of what they said because it could be scrutinized by the deity, who

might demand retribution in case of falsehood. In addition, any judgment made at a

temple was deemed to be blessed by the gods and therefore held greater authority than

sanctions imposed by groups of people, even if they were well-respected.

Speaking in front of the local (and therefore most powerful) god (*devta/devi*) has

another purpose. Statements made in the temple at a meeting could be simultaneously

judged by the people present. For instance, before I was allowed to

observe/participate in a meeting I was questioned in isolation, regarding my motives

and associations with perceived threats (such as government organizations/officials),

by a few village elders. Once they determined that I was not a threat, I was allowed

into the temple premises, where I was once again questioned by them in front of all

the members, and everyone was given an opportunity to question me. When it was

determined by consensus that everyone was satisfied with my answers, only then was

I allowed to sit in the meeting. The ritual of the second questioning by the village

elders, could be compared to the ritual of placing one's hand on the Bible and

swearing to tell the truth, although the relationship to the *devta* was different from the relationship with God (Christian version). They had questioned me in a way that allowed the *devta* (God of the local temple) and the members to judge me, and I would face divine revenge if my answers were not true. The public questioning also flattened the hierarchy, allowing everyone to question me, not only the village elders.

Another rationale invoked by members of the temple groups was the power of the *devta/devi* over non-members. If transgressors were non-members, their willingness to abide by the rules of the institution was assumed to be low. The use of the *devta/devi* could overcome their reluctance to conform to institutional rules. While members framed their invocation of the devta as a way to provoke outsiders to participate in the institutions, non-members told a different story. A Catholic trawl-boat owning, non-member of the Brahmeshwar group, on being asked why he occasionally participated in meetings at the temple, said, "*That is how those people (Brahmeshwar group) do things. If any of my boats have broken the rules then I have to go there (to the temple) and do things. Otherwise they will simply make trouble/uprising*". Like Paul's (2005) finding in Kerala, the temple and the *devta* was more a way to bring the community together and justify a social rationale. It was this unity of the community that legitimized the customary law to non-members. Thus, this legal system was able to transcend its context and become more generally applicable.

Limits to Maharashtra's legal pluralism

Even while these customary legal systems appear to work well within the local context, whether they have their intended impacts on marine resources remains to be

seen. A trawl fisherman in northern Ratnagiri district claimed, "*We have more fish in our area than surrounding areas, where they allow purse-seining. This year, we are the only ones doing well. Maybe the others will see that and realize their mistake* [allowing purse-seining]." Similar statements were made by members of some of the non-mechanized groups to justify their rules banning certain fishing gear. A gill-netter said, "*Because we don't allow trawl and purse-seine, we have more fish. That is why fishermen from outside keep coming here. They have finished all their fish and now they realize that we still have fish.*"

This statement reveals the rationale being used by the community to maintain their system of rules, but is at odds with statements about local extinctions of certain fish species. During the Brahmeshwar meeting, purse-seines were blamed for the decline and local extinction of some catfish species. This is despite the fact that purse-seines mainly target sardines and mackerels, and have relatively low rates of bycatch compared to trawl fishing gear (Gangal and Karnad, unpublished data).

Beyond the rhetoric of effective customary legal systems, many fishermen complain that fishermen from other states fish in these waters with no regard for local rules and customs. A member of the Brahmeshwar group said,

> "*The local trawlers know that they should not fish at night. Even if they do, we know that we can catch them and they will have to listen to us. But fishermen from Malpe (town in Karnataka state) and Kerala don't listen. They have very fast engines and it is difficult for us to identify individual boats. They cut our [gill] nets at night and are gone by the morning. Even if we manage to catch a few laborers from a boat, no one comes to pay compensation.*"

This is also true of fishermen who choose to use purse-seines. They view usage of the purse-seine as their legal right, since it hasn't been banned by the state. However, this has resulted in their exclusion from other fishing territories. In order to interact with

the groups who claim territories through customary law, the purse-seiners have developed their own groups. These loose groups with few fishing management rules are only their first line of defense in case of conflict with users of other fishing gear. Most purse-seiners report being comfortable with approaching the police or using their economic power, in case conflict with other fishing groups escalated.

It is while dealing with fishermen who do not recognize customary law, such as the purse-seiners and the fishermen from out of state, that local fishermen state the need for government intervention. This clearly represents an opportunity for state and customary legal systems to complement each other.

Conclusion

The customary legal system described in this chapter protects common property rights, equitable access, and the ethical and ecological concerns of community. The continued existence of customary law creates a space to oppose the public/private rights encoded in state law, and the individual, economic rationality of state interventions. India's state fisheries laws offer limited use rights but not management rights to fishermen. In doing so, these laws have created the perception of an open access fishery. Customary institutions function to fill the management gaps in state legislation by creating independent legal systems, which operate at a local scale and within the local cultural and social context of Ratnagiri and Sindhudurg's fishing communities. While state legislation is politically charged by its designation of officials, such as judges, who are legal experts, and subjects, who are the general public, the customary institutions that I studied operate using a more flat power structure. Customary law gains authority and legitimacy from 'the power rooted in

social networks' (Foucault, 1982).

Literature on customary law suggests that it can be overwhelmed by interactions with more powerful legal systems, particularly the combination of capitalist economics and state legislation. However, much of this literature does not take cognizance of the underlying power structures that help maintain or erode customary law. In Ratnagiri and Sindhudurg customary law has relevance beyond the immediate membership of the social groups involved, creating legitimacy by unifying a diverse fishing community. The context-dependent rationality (Vatn, 2007) upon which customary rules and procedures depend does not discriminate between civil and criminal procedures. In fact, many practices and procedures are quite distinct from state legal proceedings. For instance, the hallmarks of bureaucratic administration, i.e. written records and paperwork are completely absent from this form of folk law. Instead oral rule making, judgment and evidence are used. Local language, distance and bearing method of identifying fishing territories and consensus type of decision making characterize this legal system. Since rules, territories and other outcomes of these institutions are not fixed in writing, customary law is more easily adaptable to changing norms and practices than the state legal system.

Through the simultaneous creation of community oriented subjects and exertion of community through the procedures of the legal systems, customary law empowers local fishing communities in Maharashtra and achieves a greater legitimacy amongst fishermen than state fishing laws. It allows people to act in ways that are relevant in the local context, rather than forcing them to participate in procedures foreign to them. Customary law is also used to maintain and reinforce social relations through

activities such as hearings, meetings and so on. Membership in community is clearly defined through the expectation of meeting attendance and compliance with rules. The threat of excommunication is severe enough to maintain membership in many of these communities. Knowledge is not the domain of experts, but instead involves the vast majority of members. The normative ethics underlying the legitimacy of these legal systems are based on indigenous ways of thinking, such as through exemplary action, rather than western ideology of principled behavior.

The invocation of the divine serves the dual purpose of allowing the deity to participate and pass judgment, as well as to unify the community that believes in the possibility of retribution by an angered deity. For those outside this immediate circle of participants, demonstrations to the deity are required to prove their subjection to the community. To this extent Vatn's (2007) analysis, which suggests that the intricate link between folk law and religious systems is because such norms enable the regulation of activities where punishment for rule-breaking is considered difficult, may hold good. In my study, I find that the revelation of community through divine invocation overcomes unequal power relations, particularly between small and large-scale fishermen, and forces some large-scale fishermen to be subject to customary law. However, fishermen who live beyond the sphere of influence of these communities, and operate on utility and profit maximization rationality, do not fear punishment by customary law. Thus the contextual basis of customary law prevents it from being able to control the actions of those who come from outside that context. This is particularly true in the case of fishermen who come in from other states. Rule-breaking in such situations has to be escalated to state authority. There is no mechanism for states to intervene at the local level currently, but this provides an

opportunity for state to work together with fishing communities.

The absence of state intervention often leads to escalating violence since individuals subject to customary law (community oriented subjects, see Chapters 2 and 3) tend not to approach the state, even to deal with such conflicts. Bavinck (2015) suggests that violence might also be a strategy used by fishing communities to 'wake up the state'. State legislation has the capacity to deal with these sorts of problems, since it operates at a larger scale and has developed a more appropriate mechanism to exert power.

My cross-sectional study across the Ratnagiri and Sindhudurg districts of Maharashtra, India, reveals that customary law not arisen in isolation, nor is it a mere remnant of traditional practices. This legal system is an example of living law; constantly adapting to regulate the fishery in relation to state law, but also in such a way as to meet the needs of some people. There are others for whom customary law is regressive and restrictive. This side of community and customary law will be discussed in detail in the next chapter.

CHAPTER 5: Labour and the commons

Within the frame of the commons, politics takes the form of the power to control access to, collect or distribute resources (Blackmar, 2006). This chapter addresses the question of how power influences commons, by highlighting class differences and examining their articulation with practices of commoning. I use a distinction brought up during my interviews with fishermen as a starting point for this discussion of power. Fishermen who work as paid employees on fishing vessels, whether from Ratnagiri and Sindhudurg or elsewhere, are treated as a distinct group and called workers or laborers.

People who have grown up in the socio-cultural milieu of fishing in Ratnagiri and Sindhudurg, who own boats or are involved in family-run or shared fishing operations are referred to by other terms that translate to owner or fisherman. I use the term fisherman in this chapter to denote this group. This chapter uses the approach called environmentality, which brings together "a concern with power/knowledges, institutions and subjectivities" (Agrawal, 2006), to explore the creation of the fish worker subject. I use the term 'Fishworkers' to denote laborers who are supposedly capitalist subjects, who do not participate in relations of community.

Additionally I link this approach to the diverse economies perspective, exploring the economic causes and consequences to labourers interacting with the commons. My analysis, in chapter 2, of the community-oriented subject finds evidence of active

participation in the creation of egalitarian relations through demonstrations of wealth sharing, or other contributions to the commons. Similarly in this chapter, I explore the creation of the fish worker as an active process that emerges from inequities of power and the development of capitalist economic relations. I reflect on the impacts of this subjectivity on commons and commoning.

The tropes employed in research on Indian fisher folk associate particular types of social relations with particular technologies of fishing. For instance, Subramanian (2009) and Sundar (2010) associate egalitarianism with small boat operations and by corollary see hierarchical relations as associated with mechanized vessels. Consequently the labourers on these mechanized vessels are seen as capitalist subjects. Subject making requires a colonization of both practice and imagination (Agrawal, 2006). A capitalist mindset is predicated on a wage hierarchy, so no ideological call to unity will bring about a radical transformation that overcomes this hierarchy (De Angelis, 2010). Inclusive commoning can only occur through a struggle across hierarchies, which is difficult to create from within a capitalist mindset (ibid.). This perspective leads to the following assumptions. First, fishermen may be willing to make the time to commit to participate in the project of community making. Fishworkers, on the other hand, have few opportunities to share in the regulation of access to the fishery and participate in meetings. Second, unlike fishermen who function through diverse economic relations, Fishworkers are primarily capitalist subjects, whose participation in the fishery is through employment with a boat owner. Yet capitalism cannot be seen entirely a repressive system, under which Fishworkers are subjugated. Mechanisms that are repressive produce both subjugation and resistance (Foucault, 1978). Agrawal (2006) uses this contingency to suggest that

subjects make themselves.

In practice, there are several social and economic ways in which the ill-effects of capitalism can be tempered. MacDonald and Connelly (1989) view unionization as a way for wage laborers to gain power and authority to overcome an economic class divide. In fact lack of access to institutional arrangements may help maintain or aggravate poverty, among people dependent on fishing (Bene, 2003). St. Martin (2007) even identifies a share system of wage-compensation that can contribute to non-capitalist relations by limiting capital accumulation, through a transparent payment system that is controlled by an independent third-party. However, most research that has shown that the capitalist class or better off are able to gain greater benefits from common pool resources (Agrawal, 2003; McCall Howard, 2012). Given the existence of visible alternatives, in the form of community fisheries in Ratnagiri and Sindhudurg, both imagination and practice can be decolonized of capitalism. Still, the Fishworker persists. Therefore I ask how laborers become Fishworkers and how the Fishworker imaginary impacts relations of community and practices of commoning.

Building on the idea of commons and community as an activity that foregrounds collective interests, provides positive outcomes, creates and maintains ethics of equitable opportunities and ecological sustainability, which was developed in chapter 3, this chapter addresses the critique that commons literature misses important predicators because the primary focus is within i.e., to describe the characteristics of community (Agrawal, 2001). Larger social and political forces, that operate at larger scales often impinge on local interactions (Agrawal and Gibson, 1999). The

environment within which commons and community can be revealed is critical to whether this revelation can be maintained. While I agree about the influence of larger socio-political processes, I find a gap in studies of local processes, particularly with respect to those who do not participate in commoning. A few studies (e.g. Brewer 2012a, 2012b) have subjected common property research to a political ecology lens that considers fisheries actors whose interests are not represented by the community. Brewer's research identifies that the beneficiaries from the commons and community can become powerful interest groups, who can overwhelm other fishing interests. In chapters 3 and 4 I use conflicts as a way to visualize the commons and community. The boundary making processes that result from these conflicts often feature Fishworkers, as the people who do not participate, and are excluded. From their perspective these conflicts are an arena of struggle over power and authority, where non participation in practices of commoning leads to antagonistic relations. Such commons institutions may be exacerbating political, economic and social difference (Agrawal, 2005) relative to their external environment. Therefore I ask how revealing community in one arena of fishing might impact people in another arena.

To study the apparent marginalization of the interests of some fisheries actors, such as the laborers, I follow Brewer (2012b) in examining the patterns of fishing practices and terms of interpersonal relationships. Additionally, I focus on the visible strategies of commoning, such as the deployment of local knowledge, and the creation of particular economic relations. Community requires constant practice and participation, subjection to collective interests, maintaining social relations through particular, culturally acceptable symbolisms (McCay, 2002). In short, commoning is a lot of work. The diverse fishing communities that I study have developed ways to

work through difference, and across underlying hierarchies, thus tempering power struggles. I examine whether these strategies can be deployed with respect to Fishworkers. In this chapter, I focus only on the fisheries of Sindhudurg, the district with the more homogeneous fishing society, to examine how labour and wage relations relate to collective interests. I examine subject creation by explicating perspective taken by the local fishermen that the Fishworker has the agency to choose to participate in a particular set of socio-economic relations.

Finding the labor in Sindhudurg's fisheries

During my research in Sindhudurg, I occasionally came across laborers on fishing boats. Usually, they were visible at the fish landing sites, bringing fish from the boat to the beach or jetty. However, they never participated in meetings, and generally remained out of sight at other times. On some of these infrequent occasions that I met these laborers, I heard them speak different languages, such as Telugu and Hindi. Thus I realized that not all the laborers were local. This varied spatially; in some places locals had become labour, in other places labourers were people from other parts of India. All the offshore laborers that I came across worked either on trawl fishing boats or purse-seine boats. Patterns of employment appeared to be associated with the locations of villages in which groups of fishermen were not practicing commoning. Clearly labour in the fisheries was related to commoning in some way.
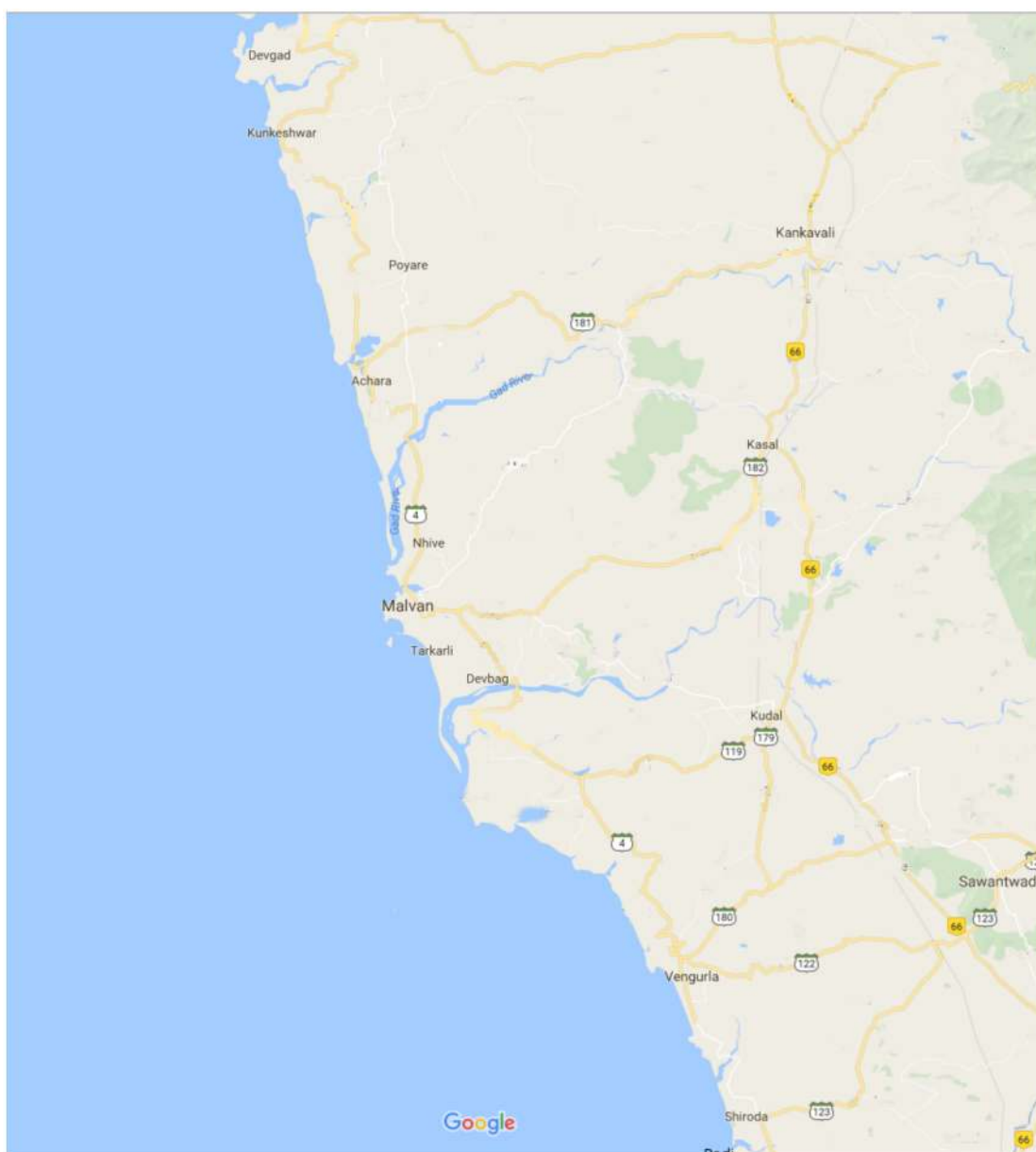
Figure 3: A map of Sindhudurg district.

The important coastal towns and villages, the rail and highway towns of Kankavali and Kudal, the rivers and road network are marked on this map

I developed an open ended, semi-structured questionnaire to interview the laborers

about their relationship to commons and community. In doing so, I was able to

approach 15 local laborers in Sindhudurg, but was not able to access any of the

migrant labourers while they were fishing from Sindhudurg. One reason was that they

were almost always on the fishing vessels, where I, as a woman, was not allowed.

Even when they were onshore, I was not encouraged to have long conversations with

them. Second, due to the language barrier, I would have found it difficult to conduct detailed interviews with them in any case. During the short conversations that I had with them, I discovered that quite a number of them were from the state of Andhra Pradesh on the east coast of India (Figure 3) and that they used to fish there before they began migrating for work.

I decided to study this group of migrants from the east coast, since they appeared to be the largest group of migrants, they were from a fishing background, and they were open to being interviewed. I visited the districts of Srikakulam and Vizianagaram, in Andhra Pradesh, during the off-season for fishing in Sindhudurg. I located and interviewed 10 of the migrants to Sindhudurg from three fishing villages, and also spent some time at the large fishing harbor of Vishakhapatnam, the nearest centre that could have absorbed labour in the fisheries, and interviewed two boat owners and two fishlabourers there. Migration is not new to the fishermen from the Srikakulam and Vizianagaram district of Andhra Pradesh. Sarma and Salagrama (2007) report a steady rise in migration to fisheries in the state of Gujarat. Once that was saturated, fishermen began to move south along the west coast looking for work.

In all cases where labour is employed for offshore work in the fisheries, the fishlabourers, rather than the boat owners, are directly in contact with marine resources. However, the subjectivities and influence of local and migrant labour are expected to be different.

Migrants in fisheries have been linked to declines in resource sustainability through

mechanisms such as disruption of the social bonds that sustain collective action (Katz, 2000). For instance, the kadakkodi (sea-court) system in Kerala was associated with users of artisanal fishing vessels and gear but declined in part due to influx of migrant fishermen associated with technological change, such as motorization and mechanization, and the subsequent politicization of the fishing community (Bavinck et al., 2013). Other temporary migrants have been linked to the creation of management regimes by locals, as a response to the threat that migrants are perceived to pose to the resource. Trawl owner groups set up financial arrangements with the leaders of some fishing villages in Tamil Nadu in order to temporarily fish and land their catch in those villages. These trawl owners had to give weekly or monthly payments to village leaders as compensation (Bavinck, 2011). The diversity in outcomes from the involvement of migrants is due to the varied ways in which migrants embed themselves in the social relations that govern ecosystem use at their destination (Curran, 2002).

I designed the interview protocol to probe their ethics and approach to fishing, their concern (if any) for environmental sustainability and social equity and how these translate into resource extraction practices. The interview was broadly divided into sections on knowledge, social networks, wage structure and employment conditions, rationale for becoming labour, treatment by other fishermen, and questions about migration. I cross verified their responses with those provided by boat owners, although I did not interview boat owners specifically for this purpose in Sindhudurg.

I present the results in sections: patterns of fishing practices, terms of interpersonal relationships, deployment of local knowledge, and the creation of particular

economic relations.

Patterns of fishing practices

The demand for labour varies along the Sindhudurg coast. Larger fishing harbors like Devgad and Vijaydurg have a higher demand than smaller fishing centers, like Achra. However, the pattern or occurrence of labour does not match with this simple schematic. Purse-seine operations require a lot of manpower to operate, particularly on vessels that are not fitted with (expensive) hydraulic equipment to haul in the heavy nets. Even mini-purse operations have large labour requirements, making smaller fishing centers like Nivati, an important destination for labour. While this explains the concentration of labourers in some places, it does not explain the absence of labourers from others. Their absence can be explained by a variety of factors.

a) Avoiding migration – A local laborer, who works on mini-purse in Vengurla says, "*What is the use of me staying by myself* [at a larger fishing harbor] *and earning a little more, while my family stays here? I don't mind earning slightly less so that I can work from home*". This statement reflects the broader sentiment among fisher folk of this region to rank comfort above profit, if they can afford it. It echoes the statement of a fisherman that I reported in Chapter 3, where he chooses to come home and sleep comfortably rather than spend endless hours at sea, searching for fish.

b) Cultural difference – Mirkarwada, the largest fishing harbor in the region, is also the only legally approved landing site for large purse-seine vessels. Still some migrants prefer not to work there. "*It is a Muslim area, isn't it?*", asks a migrant labourer from Andhra Pradesh. "*I have only visited once, but that is why I decided not to work there.*"

c) Avoiding community rules - Sindhudurg's fishing communities draw severe lines between themselves and those who participate in capitalist economic relations. "*No one in our community is anyone else's employee*", says a fisherman from northern Sindhudurg. This suggests that in Sindhudurg, wherever community is revealed, capitalist labour relations cannot exist. Those who choose capitalism are no longer a part of the community. The dominance of community in a fishing village requires that those who seek employment through a wage-labour system must leave, and seek employment elsewhere. "*Local rules say that people in those villages* [where community dominates] *should not have anything to do with either trawl fishing or purse-seine operations*", says a local laborer from Sindhudurg. This statement is corroborated by trawl owners around Brahmeshwar village. They employ people from elsewhere in the district, as well as migrants from other parts of the country, because the locals are vehemently against the use of trawl vessels. These rules are well known, and this helps spatially separate labour-intensive fishing operations from others. "*Anyone who wants to use trawl vessels in those villages will have to find labour from elsewhere because the locals won't participate*", says a purse-seine owner from Nivati.

Fishermen also subscribe to the standard tropes employed by fisheries researchers about the association between capitalist labour relations and the use of mechanized fishing techniques. "*We do not want trawls and purse seines being operated in our waters, so our local fishermen will not buy them or work on them*", says an elderly fisherman from a village north of Brahmeshwar. There are severe punishments for locals who participate in trawl fishing, such as social ostracism, so most comply with

the rules. Therefore any trawl vessels being operated in these waters are usually staffed by migrant labourers. The migrants feel harassed by villagers from places like Brahmeshwar. "*We can't land the fish or sell the fish there, they won't tell us where they got fish or how much, they don't even like it if we go to their village and spend time there*", says a migrant laborer about villages, like Brahmeshwar.

Community operates within its own socio-economic and cultural discourse in Sindhudurg. Through the association between place, i.e. village, and this discourse, a spatial pattern of labour and community emerges, where Fishworker relations are absent in groups of villages that participate in community, interspersed by villages where labour is accepted. Work by David Mosse (2003) and Robert Wade (1989) suggests that visible patterns of occurrence of commons institutions follow invisible patterns of politics, say the dominance of one group, such as the *Maravars* in Mosse's case. Following this line of thinking, commons becomes visible in those villages where fisher folk from Hindu fishing castes are dominant and able to impose their practices of community. I identify the dominance of this group because the practices through which community becomes visible are primarily Hindu rituals that are specific to fishing society. As discussed in previous chapters, non-Hindu fishermen comply with Hindu rituals in order to belong. The creation of a community oriented subject, while built on a foundation of ethics and non-capitalist relations, also involves subjection to or acceptance of the rituals and beliefs of the dominant group. d) Using migrant labour - Migrant labour complicates the spatial pattern further. Hiring migrants enables trawl and purse-seine owners to operate vessels in or near fishing territories where these gears are banned. Despite being excommunicated, these owners can continue to operate their vessels provided that they have the capital to

organize a migrant labour force. Naturally, this leads to conflict, and instances of conflict are abundantly evident in these fisheries. One gill net fisherman from southern Sindhudurg recounts an incident when he had an issue with migrant laborers on a trawl boat:

> *"When a trawl boat cut my gill net line one night, because it came too close, despite all the signals that we gave, we followed the boat and cut their net. In the scuffle that followed, I managed to catch one of the Fishworkers. He was just sitting there, because he did not know what was happening. They were mostly migrant Fishworkers on that boat, so maybe that is why they didn't understand our signal. They couldn't even speak our language. Anyway, I held the Fishworker hostage until the boat owner came and paid me the compensation. These boat owners need to teach these people. They can't simply employ people from elsewhere and push them onto boats and expect everyone to a*djust*"*.

The migrant Fishworker is perceived as the direct cause of this conflict, choosing to operate locally banned fishing gear without concern for local property rights. In fact, the migrant laborer is at the centre of a conflict in which he is relatively ignorant. The realm of conflict can be both cognitive and material (Adams et al., 2003). Cognitive conflicts occur due to different framings of resource problems, arising from differences in knowledge and understanding (ibid). In Chapters 3 and 4, I describe boat owners' framings of resource problems in the fisheries of Sindhudurg and Ratnagiri. They talk about equitable access to fishing, the competition for resources, and the disappearance of some species of fish. From the above quote it is clear that migrant labourers do not understand fisheries resources at their site of work in the same way. In a discussion of environmental activism, Taylor (2000:) writes that the different environmental experiences of activists influence "*how they perceive environmental issues, construct discourses, organize campaigns, and develop activist strategies*". Similarly, the vastly different environmental, occupational and social experiences between Fishworkers and other fishermen would result in different

framings of the fisheries and its resources.

Interpersonal relationships

The Fishworker is an outcast from community, but local laborers can still participate in other aspects of village life. They do not have a voice in the community meetings where fisheries decisions are made. But they are part of the group that discusses these decisions. One local laborer had even attended one such meeting, although he was not given a chance to participate. Fish markets and fish landing sites are open to local labour. They are allowed to interact with fish sellers and agents to sell their share of the catch. Their wives may also participate in the market as fish sellers. Thus they are aware of local fish prices and have a better estimate of profits from the fish catch. The women in their family participate in daily village life and networks, and this keeps local fish laborers abreast of news, market prices and other important information. Although local laborers perform the position of submissive subjects, they are actually armed with information to negotiate their position and claim greater benefits.

The experience of migrants differs from that of local labour due to their position as outsiders, which is augmented by their lack of knowledge of the local language. They signify the stereotypical Fishworker, and local fishermen force them to remain completely separate due to perceptions of the migrants' association with disrespecting local rules, enabling capitalist greed and other such unwanted behavior. Staying on board a fishing vessel, for instance, is very isolating, and further separates migrants from local fishermen. A migrant labourer speaks of the distaste shown by locals towards migrants, *"They think we are dirty or something. If we stay onboard the vessel we do not have regular access to freshwater for bathing and washing clothes. It*

is because they won't give us room in their village that we are dirty." Another migrant also relates a similar story, "*Because we are outsiders* we *are not served by the shopkeepers in the village. We have to walk further to [the larger marketplace in the town] to use facilities.*"

Social isolation and ostracism contribute to the low status given to the migrant labourers in fishing society. The migrants perform the Fishworker role by keeping to themselves, staying away from locals and maintaining a low profile onshore. Such migrants are completely dependent on the boat owners, being unfamiliar with the language, local culture and customs. As some of the quotes in earlier sections of this chapter reveal, both migrants and other fishermen in Sindhudurg recognize this dependence, shifting the responsibility of adherence to local rules onto the boat owner.

The migrants from Andhra Pradesh deal with this social isolation and ostracism by creating their own groups. Many of the migrants that I came across in Sindhudurg travel together in groups. These men are related or from the same village and can therefore look out for and support each other. In each of these groups are one or two people who speak Hindi or a smattering of Marathi, and serve as the spokesperson(s) for the group. It is up to this person to negotiate the terms of employment, wages, living conditions and so on. However they are not linked to markets, and usually have no knowledge of going rates for fish, and are thus at the mercy of the boat owners to provide fair shares of the profit. Their lack of a good social network at their place of work proves a significant handicap that could allow them to be exploited.

Given these difficult working conditions, it is important to identify what drives the migrants to return to these fisheries year after year. In a report on migrant laborers from Srikakulam district, Sarma and Salagrama (2007) report that working in mechanized fisheries is considered a respectable occupation, in comparison with participating in traditional or artisanal fisheries in Andhra Pradesh. Mechanized vessels are considered easier to operate than traditional vessels and therefore safer. Those who work in mechanized fisheries command higher rates of dowry, and their lump sum payments or advances are useful to clear loans or debts. Migrant labour is also related to lower rates of alcoholism. Being confined to the boat during the fishing season, the migrants have little access to alcohol. The wives of some of the migrant laborers say,

> *"We prefer our husbands to work on the west coast, because the alternative would be to work on the trawlers of the Vishakhaptnam harbor. At the gate of the harbor is a liquor shop, where most of the days earning are usually spent before the men come home".*

While there are clearly benefits to migration, the monetary and financial benefits to choosing to migrate are still difficult to quantify. Sarma and Salagrama (2007) judge the overall impact of migrant labour on family income of the Srikakulam fishermen to be low, especially for the poorest families. While this is increasingly the case in the bigger fishing destinations, like Porbandar and Veraval, where the fisheries are in decline, the problem is only exacerbated in destinations like Sindhudurg where migrant labour is not well organized. Many of the labourers in Sindhudurg report having originally come looking for work in Goa's fisheries. Upon not finding any, they wandered north into Sindhudurg. Now that news of this new destination for migrant labour has spread, fishermen from Vizianagaram district of Andhra Pradesh have also begun to migrate to Sindhudurg. This increase of labour availability has

potentially worsened the bargaining position of the migrants. Migrants to Sindhudurg and Goa report lower wages and overall earnings than those who find work in the big fishing harbors of Veraval or Mumbai (Sarma and Salagrama 2007).

Knowledge

The knowledge of the Fishworker could be considered 'subjugated knowledge'. Foucault identifies subjugated knowledge as being disqualified on the basis of the knowledge producer being low in the social hierarchy (Gordon, 1980). Thus knowledge is a field where the exertion of power becomes visible. All laborers interviewed performed their Fishworker role by claiming to have little or no ecological knowledge about Sindhudurg's marine ecosystem. Yet both local and migrant labourers were able to identify all the marketable species, such as sardines, mackerels, kingfish, pomfrets, snappers, groupers and sharks. While doing so they did not share any anecdotes about the behavior or characteristics of any of these species nor any fishing stories associated with the species. Unlike boat owners or fishermen from family run enterprises, Fishworkers appeared to relate to these species only with respect to their market value. Strikingly, local laborers did not mention declines in species, and were not willing to comment on declines when specifically asked. They were only aware that landing certain species was prohibited by the government and were not very concerned about the reason for the prohibition. They did not mention the disappearance of some species of catfish, Indian salmon and hilsa the way that boat owners and fishermen from family run enterprises had. While answering these knowledge related questions, local laborers often specifically occupied a submissive position appropriate to 'the Fishworker', often suggesting that I should ask the boat owner or the captain (any one higher in the hierarchy than themselves). It was difficult

to distinguish whether their lack of knowledge was part of the position that they were acting out or whether they really did not relate to the fisheries in those ways.

Migrant labourers who had previous fishing experience in Andhra Pradesh were willing to display their ecological knowledge about those fisheries. They told me about the both marketable and non-marketable species found there, such as mackerels, ribbonfish, eels, electric rays, and sharks. Based on their knowledge of species on the east coast, they were able to make generalized statements about species on the west coast and were able to contrast the two types of fisheries. For instance, one migrant fisherman said, "*The Sindhudurg fishery has large catches of oil sardines. These fish are almost absent in Andhra Pradesh*". He thought that this absence was because the type of seabed was different. They also felt that the fishing was better in Sindhudurg, making statements like, "*There are not as many big fishing vessels as there are in Srikakulam*" and, "*There is more fish there* [Sindhudurg] *than on our coast*". Obvious signs of the enactment of power, such as deference to higher ranking individuals were less visible among migrant labourers. However, their ignorance of the marine life in Sindhudurg suggests that they are still subject to the power of the boat owners, by simply fishing when told, rather than using their own expertise.

The lack of fish on the Andhra Pradesh coast was a theme that came up with all migrants that I interviewed. They spoke of this in terms of declines. One migrant from Srikakulam said,

> "*The large boats, the trawlers from Vishakhapatnam [large fishing harbor nearby] they come now and take all our fish. How can we survive? Now they claim they are going to build another large harbor in Srikakulam. Where are the fish for all these boats? We ourselves have to go elsewhere to fish.*"

Blaming the trawl vessels for fish declines seemed to be a nearly universal discourse

among users of other fishing gear. When asked about their role as labourers for the trawl and purse-seine operators on the west coast, however, they were not as sure about their effect on fish. "*The boats in Sindhudurg are small, not like Vishakhapatnam. Also, we use the purse seine – that is not as bad as trawling because we find out where the school is and only catch those fish*", said one migrant, echoing the arguments of mini-purse owners from Sindhudurg, who were interviewed separately (see chapter 2). Another migrant said, "*I don't know what impact we are having on fisheries on the west coast. That is not up to us anyway. The boat owners should be concerned about that. We just do as they ask.*" Most of these responses were immediately followed by a description of the way that they were treated and their inability to manipulate fishing conditions and practices. They all wanted to position themselves as lacking agency. This will be discussed further in the next section.

All laborers, migrant and local, were aware that there was competition for resources. The way that they were able to visualize this competition was in terms of the conflict with users of other fishing gear. As one local labourer put it, "*The sea has plentiful fish, except when certain weather patterns or water currents force the fish to move elsewhere. The problem is how to share these fish with other fishermen*". Almost all were aware of the existence of fishing territories, where trawl fishing and purse seining were banned. All the local laborers and a few of the migrants had been directly involved in conflicts, arising from confusion about the extent of these territories. Local laborers were able to identify the specific rules of villages close to their base, but not very sure of those from villages further away. Most migrant laborers understood the conflicts as caused by the locals' hatred of outsiders. They did not associate the conflicts with resource declines. From direct experience and hearsay,

they were aware that there were repercussions for going too close to certain villages. However only two migrants were aware that villages had created sets of rules to govern fishing in their areas. Nevertheless the general perception was that the locals wanted them to keep away because they were outsiders.

Employment and Wage Structure

Power emerges not only through knowledge but also through socio-economic relations. Wage labour in these fisheries is associated with power inequities. Agrawal (2001) also links the introduction of new technology for resource harvest to inequities of power. Greater power inequities lead to resource degradation because the powerful are able to impose higher costs on those with less power (Perez-Cicera and Lovett, 2005).

But St. Martin (2007) suggests that particular economic formations of wages, as shares of the benefits from commons, could overcome these inequities and provide an opportunity for labour to participate in commoning. Yet, in Sindhudurg, Fishworkers do not appear to see any direct benefit from the commons. Local labourers receive monthly wages in addition to a small proportion or share of the profits. This might be in terms of cash or an actual portion of the catch, which they can individually sell or use. They do not view these as benefits arising out of common property arrangements, since they are not a part of the community. *"If I work hard, if all of us on the boat work hard and catch more fish, we get more. This has nothing to do with other fishermen. Other fishermen want to keep us out, where is the question of gaining any benefits from co-operating with them?"*, says one local laborer. Thus these fishermen appear to subscribe to a capitalist understanding of individual action leading to

betterment (DeAngelis, 2010). Local labourers who receive cash incentives appear to be worse off. They are unaware of the exact quantity of profits, because no money changes hands in front of them. The boat owner usually prearranges deals with fish distribution agents who have a prefixed price for different species. The boat owner can claim to have made a deal at a price lower than market rates, and justify giving the Fishworker lower profit shares.

Local labour is in a better position to negotiate about wages and profit shares because local labourers have a lot of local knowledge. One local laborer says,

> *"My wife is in the fish business. She sells at the market in Parule [hilltop town], so she knows what the prices are. The boat owner knows this and so he cannot try arguing with me about the price of fish. All my fellow laborers know that they can count on me to get the latest information about fish prices."*

Even otherwise, since the laborers know people at the fish market and often sell their shares to them, they are more aware of prices than migrants. They can harness their social networks to find out about going rates of fish or wages to negotiate for fairer deals.

Migrant labour is arranged differently. Originally migrants from Srikakulam migrated to the fisheries of the state of Gujarat, particularly in the important fish landing centers of Veraval and Porbandar (Sarma and Salagrama, 2007). This labour market was organized, with a system of advance payment to the migrants, followed by a fixed monthly wage. In contrast, the migrant labour system in Sindhudurg is poorly organized, being much newer, and migrants often enter into direct verbal agreements with boat owners rather than going through contractors. Working conditions for migrant labour in fisheries are notoriously bad, and Sindhudurg is no exception. The Srikakulam fisherman whom I interviewed reported, *"There have been times when I*

have spent up to 20 days on a fishing trip. During this time, I dare not bathe or wash clothes, because I would have to use sea water and thereafter my skin would be chafed by the salt that remains." While first aid kits are available on the vessels, there is no concept of health insurance. "*If we fall sick, we have to take care of ourselves. We go to the government hospital for free treatment, but our wages for those days are cut. The [boat] owner does not pay for our treatment.*" said the migrant. Payment is often in the form of a lump sum given at the end of the fishing season, which the migrants sometimes prefer because they have no place to store the money during the fishing season. This is because the migrants do not have bank accounts or access to safe storage in Sindhudurg. The payment is supposed to take the form of a daily wage plus a share of the profit, but since it is paid in a lump sum, the migrants often find it difficult to calculate how the final amount was arrived at. The migrants' perspective is exemplified by a statement by one man, "*The fishing is so variable, one day we may have a bumper catch and then we may not get anything for weeks. At the end the [boat] owner will say that he is running at a loss, and we can't say anything. We have to take whatever he gives us.*" This lump sum payment also means that if a migrant has to leave mid-season, he will have to forfeit his payment. This sort of wage labour system is not conducive to the formation of community.

At the same time many migrants are housed in rooms attached to the boat owner's house, rent free. The women of the house usually cook for the migrants, although the food that they are given may be simpler than the food served to the family. The relationship between such an employer and employee is not entirely capitalist. In places where there is no space to build additional rooms in their house, the boat owners report allowing migrants to live onboard the vessel. But the migrants have a different perspective. One migrant says,

"We are usually not allowed to stay in the fishing villages during our time in Maharashtra, because the locals don't like us. This means that we have to stay onboard the fishing vessel for the entire fishing season [four months in his case, but can extend to eight months for some migrants].

Making the Fishworker subject

Foucault's discussion of discourse and power in *The History of Sexuality* reveals that subjection to a particular repressive regime emerges both from being subjected, and from acknowledging and speaking about this subjection. In this case, Fishworkers' subjection to the harsh working conditions, low social status and lack of agency in these fisheries is strengthened by the their acceptance of such treatment as expected in employer-employee relationships. That migrant labour perform the subject position of submissive laborer in Sindhudurg is apparent from the high status they occupy in their home villages as a consequence. Performing the Fishworker subject allows them to work away from home, in circumstances that are considered safer than fishing at home, by their family. The discourse surrounding migration for fish work from Srikakulam and Vizianagaram in Andhra Pradesh is one of respectability. The migrants are offered the capitalist dream of employment as a path to quickly acquiring material wealth. This is unlike the family owned enterprises in the fishing villages of Srikakulam and Vizianagaram, from which profits just about cover their daily needs. The harsh conditions of migrant labour also offer respectability since they limit the Fishworkers access to alcohol. By keeping these migrant laborers occupied for extended periods, the families of the migrant laborers are safeguarded, having received the initial lump sum, and a promise of a steady income. No matter how small this income may be, the family's finances are managed by the women, who generally

ensure that money is spent on basic needs like food and education. Men who are

willing to migrate in order to perform the subject position of submissive Fishworker,

are therefore highly valued in their home communities.

Another reason to consider that these Fishworkers subject themselves to this position

is because of the long distance over which laborers migrate to work in Sindhudurg.

Covering over 1300 km (the shortest route) between Andhra Pradesh and the fishing

harbors of Maharashtra is not common in the fisheries. Usually migrant fishermen

limit their travels to areas of similar environmental and social conditions (Salagrama,

2006). In such cases migrants usually make resource use agreements and

arrangements with local fishermen. When migrant fishermen have rights to access the

sea for fishing, an ability to use their fishing skills and experience, and make their

own fishing decisions based on their knowledge, as can be the case when migrants

come from nearby places, such migration maintains the position of the fishermen as

independent and authoritative. The outsider problem -- being socially ostracized or

isolated because of one's status as a migrant-- is reduced by using socially acceptable

fishing practices, sharing a language and culture. Such a case is discussed by Bavinck

(2001) with respect to the fishing communities that developed around the city of

Chennai. Migrants from other than the local *Pattinavar* fishing caste are more readily

accepted by locals, provided that they use non-mechanized fishing technology and

have an acceptable reason for migration. The migrants in Sindhudurg's fisheries are

socially and culturally different from the locals, use fishing practices that are not

locally acceptable, and according to the locals, have the option to work elsewhere (for

instance, closer to their home). Therefore migrant Fishworkers have to perform the

role of submissive and invisible fisheries actors, isolate themselves from the local

fishing society in order to overcome the tension of their existence in the fishery.

Doing so allows them to perform socially unacceptable fishing practices, because the

implication of the migrant's submission is that someone else controls their actions.

Thus the boat owners who hire these migrants are forced to take responsibility for the

migrants' actions.

Local Fishworkers also perform the submissive subject position. That they have the

agency to choose to perform this role is evident from their opportunity to participate

in practices of commoning and therefore in community, which exists in villages

around them. Still, they allow boat owners to control their access to the fishery. Some

of the local laborers are Hindus, while others are Muslims or Catholics. Their

performance as the submissive Fishworker can also be seen as a response to the

regulations of community, just as it is a response to the capitalist discourse of

betterment. While talking about the conflicts over fishing gear use, several of the local

Fishworkers referred to the communities that had developed fishing territories, as

being small minded, anachronistic and not knowing how to fish. Further evidence of

their choice to move away from community comes from the fact that despite not

achieving the promised benefits from capitalism, they continue to perform the role of

submissive Fishworker. Local laborers, particularly those from other religions, may

choose wage-labour as a form of resistance to the dominance of the Hindu fishing

rituals and culture. All these sentiments, in addition to the expected reasoning of

economic commitments or debt, are tied into the statement made by several of these

laborers, "I have no alternative". The Fishworker participates in a discourse about

lack of agency that serves to further the capitalist agenda of marine exploitation, while

the laborers attempts to shift responsibility on to boat owners reflects the laborers

selective performance of the Fishworker role. The ignorant and submissive

Fishworker subject serves as the tool by which capitalism seeks to spread through the

fisheries.

Conclusion: capitalism, commons and the Fishworker subject

The submissive Fishworker subject in Sindhudurg's fisheries does not support

commoning. In the places studied, such as Nivati, Brahmeshwar, Achra, Malvan and

Vengurla in the Sindhudurg district and their fisheries, the social practices and

patterns here called community and the commons create resistance to perceived

threats from larger-scale, mechanized methods of fishing. Since these methods rely on

and help create the need for labour, community and the commons might be thought to

"resist labour".

But the influence of labour is not straight forward. Boat owner-Fishworker labour

relations in Sindhudurg form a space outside of and as an alternative to community,

for those who feel limited by participation in community. Thus commons and

capitalist relations can be understood to be mutually constitutive in the fisheries of

Sindhudurg.

In Sindhudurg, the practice of hiring labour has translated into ensuring the

persistence of the trawl and purse-seine fishery. Despite protests by local fishermen,

the purse seine has been retained due to the easy availability of experienced crew

from Andhra Pradesh. The escalating conflict between purse-seine boat owners and

local artisanal fishermen once again sees migrants caught in the cross-fire. They are

often the targets of physical altercations at sea over purse-seine usage in artisanal fishing areas. Even though the owners do not accompany the labour to sea, the laborers act as capitalist subjects, choosing to compete rather than co-operate and shifting responsibility for their fishing practices on to the boat owners.

Rather than disrupting commons and community, labour in the fisheries serve as a daily reminder of the threat of capital exploitation. Fishermen from the community recognize the ecological, economic and social exploitation of labour in the fisheries, making statements such as, "I will not work as someone else's employee". These fishermen believe that social ostracism will help laborers realize that they ought to find more dignified ways of participating in fishing. Speaking about migrant labour, a fisherman from Sindhudurg says,

> *"Do they fish like this at home? If they did, then that is why they probably ran out of fish and had to come and work here. Why should anyone want to come here and subject themselves to such bad conditions. We hope that by showing them that they are not wanted, they will stop coming, and the purse-seine fishery will have to close down."*

Migrants clearly do not contribute to the local economy because most of their remittances are made back to their place of origin. Being outcast by locals, they are prevented from participating in local markets. They are also not allowed to make decisions about where to fish, how long to fish and so on. Fishermen in Sindhudurg are happy to keep it this way, so that when the migrants leave, there will be no political lobby trying to provide other reasons for them to stay. Local laborers are more integrated with local fishermen, but remain relatively isolated and continually face pressure not to participate in labour-relations.

The degree of embeddedness in social relations is the key to positive or negative

outcomes (McCay and Jentoft, 1996), and labour is not very well embedded. The most socially isolated are migrant labour, their presence acting as a catalyst for polarization, and the emergence of interest groups surrounding the use or ban of mechanized fishing technologies. The migrants' situation not only results in their own exploitation but also exacerbates conflicts between users of different types of fishing technology in Sindhudurg. They are at the receiving end of this conflict, directly by being taken hostage during negotiations for compensation, and through social ostracism, which is indirectly related to the conflict. What attracts the migrants from Srikakulam and Vizianagaram to Sindhudurg is the prospect of getting a fixed monthly income (although it often paid as a lump sum at the end of the fishing season). In Srikakulam there is some prestige associated with working on large mechanized vessels. Mechanized vessels are considered easier to operate than traditional vessels and therefore safer. Fishermen working on mechanized vessels can often demand higher rates of dowry (Sarma and Salagrama, 2007). However conditions of employment in Maharashtra are often not labour friendly. Unlike the migrant labour systems elsewhere, boat owners in Maharashtra do not offer the migrants any advance payments. There is no health insurance or health coverage provided by the boat owners. Migrants often bear the brunt of local hostility towards trawl and purse-seine vessels. The migrants are often unaware about local rules regarding fishing territories and ban on mechanized vessels, and are caught or held hostage by the locals when they venture into these territories. Locals also may not allow the migrants to stay in their villages, forcing them to stay onboard the vessel. As a result migrants have limited access to basic needs for hygiene.

By accepting lower wages and working longer hours than fishermen from the

community, labour chips away at the resilience of the commons. These examples from my research indicate the multiple impacts that migrants in the same industry can have, depending on the way in which they engage with social networks, culture and relations at their destination.

CHAPTER 6: Conclusion

Rethinking fisheries management

The majority of the global discourse about fisheries management is situated at the cusp of sustainability science, biology and economics. The discussion of community and non-capitalist practices has largely remained in the realm of anthropologists and geographers, with very little influence on global fishing management debates. One reason for this, suggested by the work of St. Martin (2001), could be the framing of biology, economics and sustainability in terms of neoclassical and neoliberal economic theory. Fisheries management, through the lens of biology, is understood using data from fish landings, stocks, species and trophic webs (e.g. Watson et al., 2004, Pauly et al., 1998). If fishermen are thought about at all, it is only in terms of "fishing effort", which is often disconnected from human action, and measured only

in terms of engine power and time spent at sea (e.g. Anticamara et al., 2011). Fishing

effort is assumed to be the aggregated effort of the individual fisherman. Yet, the unit

of data collection is usually the boat (St. Martin, 2001). There is a smooth transition

from biology to economics, because the same data, collected in the same way can be

manipulated and modeled to produce bio-economic results. From these data emerge

solutions for fisheries sustainability, such as catch restrictions, gear modification, and

closed areas (e.g. Worm et al., 2009). These solutions are proposed as perfectly

reasonable, logical and rational solutions that affect property relations, albeit masking

their neoliberal capitalist origins (Mansfield, 2004).

Mansfield's work, along with others like McCay, Jentoft and St. Martin who critique

privatization and enclosure of the fisheries, reveal the socio-economic processes that

produce the outcomes of catch restrictions, gear modifications or restrictions and

closed areas or periods. Their work also reveals the production of these outcomes

from other processes, such as community, co-operation and reciprocity. My

dissertation contributes to the latter literature by suggesting that fisheries can be better

managed by shifting focus from solutions as outcomes, to solutions as processes.

Commons thinking and commoning

As described in Chapter 1, common property is a useful and sometimes more accurate

way of depicting fisheries than open access. Common property theory has been used

to examine relationships between humans and the natural resources on which they

depend, at local or small scales across the world (McCay and Acheson, 1987; Ostrom,

1990). Still debates continue to engage scholars regarding the mechanisms by which

common property comes into being and how the relationships that enable the

commons are sustained. While Ostrom and other political scientists or economists suggest a mechanistic, individual utility maximizing rationale, McCay and other anthropologists invoke particular configurations of relations that emerge from local contexts. My dissertation builds from this latter understanding of common property and engages with more recent transitions in the commons literature to suggest that community and commons management may be found through associations that do not always fit Ostrom's principles or follow the anthropologists focus on property rights.

Commons are now being understood as more than resource systems (Gibson-Graham et al., 2016). This shift in thinking calls into question the way researchers have understood people and resources as being separate entities who need to relate through property rights to achieve sustainable management. The relationships developed to construct common property regimes are now being understood as important to tackle issues in any social, political or economic sphere, from climate change to the internet. This shift away from resources and property, towards relationships of co-operation, reciprocity and the plural (as opposed to the individual) characterize this new turn in commons thinking. Commoning is understood as a political and economic project as much as a social and livelihood project.

This dissertation contributes to this new direction of commons theory, using a case of fisheries to link more than resource-systems thinking to resources. It examines fisheries in the Third World, as being the product of discourses about backwardness, primitivism, capitalist economic development and distinctness. It investigates how actors who harvest fish from the sea, namely fishermen, navigate these discourses to create commons. It demonstrates that commoning acts on the individual, by creating

commons-oriented subjects, as well as on society, by creating commoners and outsiders, and on the resources, through fishing rules. It shows these fisheries, not as romantic sites of commonality, unity and co-operation, but as spaces of contestation, where commoning emerges through every day acts and practices.

This dissertation builds on the theory of Jean-Luc Nancy (1991) to demonstrate that community can exist in situations where boundaries are blurred, society is diverse and heterogeneous, and local rules that contradict state legislation continue to be used. This allows the conversation about the commons to transcend a discussion on property relations and law, and move towards a discussion of the commons as it pertains to economics. This requires that a commoning mindset influence every social transaction. The advantage of this shift is that one can begin to see acts of commoning as relevant to every aspect of life, not merely those that relate to property relations.

Fishermen at the local scale are typically understood as being at the receiving end of powerful changes implemented as a result of globalization or neoliberal policy decisions. This dissertation shows that power emerges from the local through relationships that characterize community. In this way, community becomes a form of resistance. At the same time this study also interrogates the costs of participation in community, suggesting that the particular forms through which participation must be demonstrated in this particular context are limiting factors. I discuss the specific particularities of the fisheries of Ratnagiri and Sindhudurg with reference to the research questions posed at the beginning of this dissertation.

1) *What are daily practices and discourses that fishermen use to demonstrate being-*

in-common? Do these practices and discourses reveal a concern for environment and community? How do they align with the practices and discourses of the state and the market.

This dissertation identifies a discourse at work in the fisheries of Ratnagiri and Sindhudurg, being used by the government to justify development interventions. This discourse sees fishermen as lawless and needing external control to be exerted on them, as well as through the binary of traditional/modern, where traditional fishermen are understood to be primitive, backward and in need of upliftment. In contrast, my research identifies fishermen as organizing over issues of local interest, creating opportunities for less powerful groups of fishermen and taking interest in the maintenance of the marine ecosystem. These fishermen acknowledge the use of the binary by governments and NGOs, and may even strategically employ these categories to gain benefits from the government. But in their interactions with each other, they redeploy these terms to recognize traditional fishermen as associated with a particular set of ethics and practices that define community. Being traditional requires particular forms of non-alignment with the agenda of the state and the market, such as not being motivated by profit alone. Instead traditional fishermen are understood as participating in the social norms that define and regulate community.

Despite claims that successful commons are characterized by well defined boundaries, nested institutions, effective monitoring, graduated sanctions and so on, commoning in the fishing villages of Ratnagiri and Sindhudurg expresses itself through different mechanisms. Commoning takes the form of a particular set of rituals and social norms that foreground local values of sharing, equity and egalitarianism. These practices become particularly visible in situations of conflict. Arguments about unity amidst

diversity, the power of co-operation, conformance and participation underscore the ways that conflicts are settled. Community also involves sacrifice, i.e. the willingness to forego some portion of one's profit in order to demonstrate commoning. The spatial and temporal configurations of the villages and marketplaces also demonstrate commoning in action. The location and operation of the fish market, for instance, demonstrates a concern for the smaller scale fishermen, whose catch might be devalued by large landings from the large, mechanized vessels. The spatial and temporal separation of fish markets for mechanized and non-mechanized vessels, in villages like Dandi, can be understood as mechanisms to reduce the impact, on non-mechanized fishermen, of price fluctuations as a result of large landings.

2. How do these communities of practice evolve resource management regimes? What management rules emerge and do they reflect a concern for or commitment to community or environmental well-being? How do such regimes articulate with standard understandings of common property regimes? (Chapters 3 and 4)

This dissertation identifies two key enablers of community – practices of diverse economy and legal pluralism. Having a customary legal system that is not oriented to imposing the individualistic and private property relations that characterize state law has afforded the fisherfolk of Ratnagiri and Sindhudurg the opportunity to maintain community economies. Community economies of this region foreground values such as individual sacrifice for social needs, respect for local customs and participation in rituals. Performing these activities allows individuals access to markets, access to help and to the authority emerging from community. In seeing community as emerging from these factors, which are linked to daily transactions and practices, commons and community can also be seen as responding and evolving with respect to everyday

conflicts and novel problems. Rules that dictate the current form of fishing territories, are a response to recent introductions of new fishing gear and technology. These rules stem from the values held in esteem in the community economy, and therefore exhibit a concern for community and commons.

In the shift away from Ostrom's design principles, community and commons become inseperable. Therefore regard for community cannot be seperated from regard for the resources in common. In fact, the resources could be thought of as the non-human actors in community. Fishermen in Ratnagiri and Sindhudurg demonstrate this by seeing their extensive knowledge about the fish, the sea and the act of fishing as a way to participate in community. The disappearance of a certain species of fish is of concern to the fishermen, even though it does not appear to concern the authorities of the Fisheries Department, whose job it is to be concerned about such losses. This knowledge along with the strength of the relationships that characterize community give the fishermen the authority to oppose state law in cases where it contradicts community law.

The commoning approach laid out in this dissertation provides an alternate path to identify effective commons management, suggesting that the outcomes listed by Ostrom are not the only ways to visualize collective action for resource management. McCay and Acheson (1987) also make this point, suggesting that property rights may emerge from many different types of communities. This dissertation goes further to suggest that if resources are a part of the community, showing concern for community indicates that the needs of the resources, in terms of survival or replenishment, are being taken into consideration. Thus explicit and well-defined property rights are not

necessarily the only hallmarks to indicate that resources are being managed.

Management rules themselves may apply to a limited or well-bounded set of

participants, but even outsiders can show concern for community by performing acts

of sacrifice for the community, such as contributing to the temple. Thus the

dependence on well-defined boundaries for both community and resource may not be

necessary to ensure that resources are being managed by people.

Evidence of diverse economies at work calls into question the very premise on which

the design principles are built; that resource exploitation, from a capitalist frame,

leads to resource scarcity. This is not to say that scarcity doesn't exist, but that the

predicted path to resource scarcity, which is used by most fisheries managers to

promote their outcome based solutions, is based on a capitalocentric framing of

fishing practices. The way in which scarcity may occur or be experienced may be

completely different when diverse economies are at work.

3. What are the bounds of these management regimes? Why do certain fishermen

choose to participate in such forms of management and not others? How do common

property institutions affect those who are not included? (Chapter 5)

This dissertation interrogates the non-normative community by focusing on how

participation comes about. Unlike other research from India, such as Bavinck (2001)

and Bavinck et al., (2015), participation in community in Ratnagiri and Sindhudurg

does not primarily stem from place of origin. People who have moved into the area,

who participate in the demonstrations of community, are seen as part of the

community. Similarly locals who do not participate in the demonstrations or subject

themselves to the social norms of the community are considered outsiders. Boundaries of community become most clearly visible in relation to wage employment. Wage laborers or Fishworkers are not considered part of the community. This clear divide between community and outsiders creates a space for the coexistence of capitalist modes of fishing alongside the other diverse economic forms used by community. In fact, new developments in each of these fishing arrangements creates conflict, which becomes an opportunity to renegotiate rules, boundaries and participation. Community economies and capitalism are thus conceived of as co-constitutive in the fisheries of Ratnagiri and Sindhudurg.

This dissertation also focuses on commoning as a subject making device. Subject making is an integral component of commons because it depicts social relations of power and the ways in which these relations, whether human or non-human, are understood (Agrawal, 2005; Nightingale, 2011). Nightingale sees the main purpose of subjectivity as creating paths for cooperation. I add to this perspective by seeing subjectivity as both creating opportunities for cooperation between fishermen and opportunities for resistance against hegemonic discourses of the state, situating power at the local scale.

The reasons for the non-participation of some locals in the project of community also reveals the hegemonic power of community in the local context. It also reveals the basis for community's authority as residing with the dominant Hindu fishing castes of this area. But non-participation leaves Fishworkers open to exploitation, which is particularly true of migrant Fishworkers. These migrants are unwittingly a serious threat to the power of community, since through their ignorance they promote the

spread of capitalist fishing arrangements, which are thought to affect the sustainability of the fisheries. Consequently they are subject to harassment by the community, in addition to inequitable treatment they may receive from their employers. Just as community can provoke positive outcomes in the fishery by becoming a site from which the community oriented subject gains power, this power can also overwhelm and produce resistance, as in the case of the Fishworkers.

Future challenges to community

Challenges to community emerge at multiple scales. Within the realm of discourse use of the term "community" is increasingly becoming mainstream. Involving communities in resource management is not only spoken about in the social sciences, but also increasingly in the natural sciences (Olson, 2005) and in law and policy (St. Martin and Hall-Arber, 2008). The meaning of the term is gradually being colonized by assumptions of spatial fixity and methodological individualism, and communities are being reconstituted to fit these descriptions (St. Martin and Hall-Arber, 2008). This only strengthens the need for more research, providing evidence of non-idealized and non-normative communities, to expand our imagination and reinvigorate the discussion around community and commons.

More immediate challenges are being experienced in Ratnagiri and Sindhudurg. Two development initiatives emerged as important forces of economic change in the fisheries, just as I was leaving the field. The first is the construction of seawalls, and the second is the setup of iron ore mines in the interiors of Sindhudurg. A government report[7] proposes the construction of seawalls along 32 stretches on the Ratnagiri and

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7   http://cwc.gov.in/CPDAC-Website/Guideline/CWPRS%20-Technical%20Memoranda.pdf

Sindhudurg coastline, many of which have now been completed. The Maharashtra Maritime Board, which builds the seawalls, in recognition that walls cut off access between the fishing villages and the beach, have begun simultaneous construction of fishing harbors. Such construction on the coastline is known to cause coastal erosion and sedimentation problems, a fact recognized by state legislation through the Coastal Zone Regulations (1986). Fishermen who used to bring their beach landing vessels inland during the monsoon, to prevent the boats from being washed away, find it difficult to get the boats over seawalls that are sometimes up to 10 feet high. The fishing harbors being constructed by the Maritime Board serve large fishing vessels, but cannot accommodate small beach landing craft. This coastal development is threatening to dispossess many fishermen who currently participate in community.

Several mining operators shifted operations into Sindhudurg due to a ban[8] on operations of existing mines south of the Sindhudurg border. The transportation of ore now operates through Redi port at the southern tip of Sindhudurg. Working with the poor capacity and infrastructure at Redi port, the mining industry uses dump trucks to dump ore into open barges waiting ten feet or more below the jetty. Pouring ore from a height, without a pipe or tube to direct the flow results in a large amount of wastage, polluting the sea. This has impacted the presence of fish in the waters around Redi port. Consequently the fishery is threatened to a point of almost shutting down.

Viewing such developments from a standard understanding of commons suggests that community might be overwhelmed and breakdown. My dissertation, along with a

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8   http://www.hindustantimes.com/india/sc-bans-mining-in-goa-sale-ore-export-also-stopped/story-ktjY9nLFAhhkZ5Rv5dbo3L.html

growing body of scholarship that sees community and commons not as relics of a historical past but as continuously emergent, suggests that community may evolve in these situations as a form of resistance. Understanding community as a powerful site of economics, culture, interdependence and social relations allows us to imagine a community response to neoliberal discourses and development initiatives. My dissertation allows the revisualization of the local as a site of power, that is continuously resisting, reconstituting and redeploying attempts to impose capitalist economic developments.

APPENDIX 1: **Key Informant Interviews**

A. Background
How old are you?
Do you come from a family that has a history of fishing?
How long have you and your family fished - How many generations?
How did you start fishing? With whom did you start fishing (looking for answers such as relative/ non-relative/ worker on someone's boat for wages)?
When you started fishing, what did you do i.e. how did you fish? What was your contribution to the boat?
How did you fish when you first started on your own/as an employee/partner?
How do you fish now? Has there been a change?
Probe for
Change in gear and vessels
Difference between yourself and your family's fishing practices
Why did you change?
If you had the option what fishing gear and vessels would you like to use? Why?
Can you draw out the area that you regularly fish in on this paper?
Probe for
Specific places that you fish in certain seasons? Why?
Specific places that you fish for certain species?
Specific places that you fish with certain gears?
What is an average fishing trip like?
Probe for
Decisions about which fishing gear to carry
Where to go
Who is crew
How, when, where and for how long a particular gear should be deployed
Duration of fishing trip
Flexibility of all these decisions
How is your employment relationship setup/ relationship with crew setup? Do you divide profits? Are there wages?
What are the other types of employment practices (prompt with examples)? Are they associated with certain people? Certain gear types? Certain places?
Do your fishing costs vary depending on the type of species that you are trying to catch? Which species requires higher inputs (prompt with list) What types of government schemes are available to help you?
At what times/seasons would you like to fish (for e.g. only when the weather is good etc.)? Do you actually fish only in those times/seasons? Why?
Where would you like to fish? Do actually you fish there? Do you fish there all/most of the time? Why? Map (?)

Are there certain species that you would prefer to catch? Why?

How do you ensure that you catch your preferred species?

Do you use areas that others don't? Which areas – Map?

Do you try to fish before/ longer/ further than others – elaborate

Please tell me about your encounters with threatened species – sharks/ sea turtles/ anything else that fishermen suggest. Can you tell me where it happened (on the map)

B. Defining Boundaries

Who fishes in your fishing area (indicate the map drawn)? What opinion do you have if the following gears are used in your fishing area?

Gill-net (why do you have this opinion?)

Rapan (why)

Bottom Trawl (why)

Pelagic trawl(why)

Purse seines (why)

Where do you suggest that they fish?

Gill-netters (why)

Shore -seine (*rapan*) (why)

Bottom Trawlers (why)

Mid water trawlers (*disco*) (why)

Purse seiners (why)

Who can fish in your area?

Probe for

Fishermen from surrounding villages (name them)

Fishermen from within the district

Fishermen from within the state

Fishermen from other states

Non-fishermen – who are they?

If it bothers you, is there anything that you can do to prevent the use of those gears?

Outside your fishing area

In your fishing spot/ area

What impacts do each of these fishing techniques have? Why allow some and not others?

How did you decide which ones to allow?

Who made the decisions?

Are there ways to overcome these impacts of fishing gear without preventing people from fishing?

Probe for

insurance schemes, alternate professions, unionizing

What do you see as the impacts of your own fishing techniques and your exclusionary practices?

C. Social Network

To whom do you sell your fish? How did you setup this business relationship?

Probe for

Export agent, Local market agent, auctioneer, female fish merchant etc.

Does your buyer give you a bonus/benefit/incentive to catch certain species or certain quantities? If yes, how do you meet these targets?

Is there a certain quality of catch needed in order to be able to sell to certain agents/markets? How do you meet these demands?

If you have problems with your agent/ market is there some organization/group/individuals who will support you?

Elaborate – how do they help, name, how many times, how do you approach?

Do you feel confident about approaching this group with a problem every time it occurs? Why? Why not?

Can you indicate on the map, where this organization/group/individuals live or operate?

If you have financial problems is there a group that you turn to for help? Elaborate

Do you feel confident about approaching this group with a problem every time it occurs? Why? Why not?

Do you have to perform certain duties in order to get help from these people/ groups (above). List for each group separately

If you have trouble with fishermen from outside your village, who do you turn to for help?
If you have trouble with fishermen from outside your state, who do you turn to for help?
What is the role of the local panchayat/ panchayat leaders/ MLA in resolving. (For each ask how)
Problems with your agent
Your financial problems
Problems with fishermen from outside your village
Problems with fishermen from outside your state
Problems with fish catch decline
What should be their role in your opinion?
What is the role of the local police or fisheries department in resolving. (For each ask how)
Problems with your agent
Your financial problems
Problems with fishermen from outside your village
Problems with fishermen from outside your state
Problems with fish catch decline
What should be their role in your opinion?
What is the role of the local fisheries union in resolving. (For each ask how)
Problems with your agent
Your financial problems
Problems with fishermen from outside your village
Problems with fishermen from outside your state
Problems with fish catch decline
What should be their role in your opinion?
What is the role of your friends/ neighbors and family in resolving. (For each ask how)
Problems with your agent
Your financial problems
Problems with fishermen from outside your village
Problems with fishermen from outside your state
Problems with fish catch decline

D. Rules
What are the rules made by your fishing village/group/community about fishing? Are these rules the
        same now as when you started fishing?
Who puts limitations on when, where and how much you fish?
Probe vague answers for information pertaining to:
Local body
Family
Government
Other- depending on their response
What types of restrictions do they place? Why?
Probe for
Space/time restrictions
Gear/territory restrictions
Equity/Ecology restrictions
How are the restrictions on your fishing activity similar/different from traditional/historic rules made
        by your fishing village/group/community?
Do you think these rules/restrictions are useful in any way? How so?
Do you think rules/restrictions are necessary? Why?
Probe for perceptions about
Equity among fishermen
Sustained catch sizes
Availability of preferred species
Destruction of camaraderie/community
Elimination of traditional ways of fishing
Destruction of habitat
Your/ future of fishing
Your/future access to seafood
What types of rules would you put in place if you were able?
Do you think you could approach an existing organization/ local body or group to try and put these in

place? Which organization/ local body or group? Why? Why not others?
Do you think you could create an organization/ local body or group to try and put these in place? How? Who would be a part of it? Why? Why not others?

E. Economic questions
How do you account for price fluctuations when sharing profits/paying or receiving wages?
Do you know the daily price of fish?
How do you decide which species to sell at which market/ agent daily?
Are the prices decided at the landing site or are they decided before you set out on a fishing trip?
Would you prefer fixed prices for high value species for each year? If yes, what prevents you fixing the price?

APPENDIX 2: **Interviews with Fisheries Department***

I am a PhD student in Geography from Rutgers University, also associated with the Foundation for Ecological Research, Advocacy and Learning, Pondicherry. I am studying the fisheries of Ratnagiri and Sindhudurg. To get an introduction to the fisheries, I thought that I would approach the Fisheries Department and understand your perspective and role in the fisheries of _____ (place) _____. Would you be willing to answer some questions? I will use your responses for my study, but will not share your responses with anyone else. Your name and official position will not be recorded and all identifying information will be deleted.

So that I can listen to what you say and don't have to keep writing in between, I would like to record your answers. I will not share this recording with anyone and will delete it after transcription. Is that alright?

Introduction to the fishery
1) Can you tell me about the fisheries in this place?
Probe
      a. What species of fish are caught here?
      b. What types of nets and boats do people use in this place?
      c. What types of fishermen work in these fisheries?
2) Overall, how many fish landing sites/ports does your local office oversee?
3) If there are issues about fishing (in reference to a recent report or incident), conflicts within the fisher people, what do you do?
      a. Are you supposed to get involved?
      b. Is that the job of another govt dept?

Introduction to the local office
1) How many people work in this office?
2) What are the various types of activities undertaken by this office?
Probe
      a. Does your office manage government schemes for fishermen? If yes, what types of schemes are available for fishermen and how does your office help in providing these schemes?
      b. Does your office register boats? Are there any rules about which types of boats and how many boats should be registered in a given landing site/port?
      c. Does your office provide fishing licenses? On what basis are licenses given? Are there limits provided on the license regarding where people can fish and where they should not fish? Are limits provided on the license regarding in which season people can fish and when they should not fish? Are limits provided on the license regarding at what times of day people should or should not fish?
      d. Does your office monitor the fish catch and record data about fish catch? Do fishermen report their catches to the office or does someone from your office have to go to the landing site and collect the data?
      e. Is your office supposed to monitor the fishing activity to make sure that everyone is fishing according to the specifications in their license and the MH Fishing Act? What are the main fishing regulation provisions of the Act? How is this monitoring conducted?

            Probe about purse seines
       f. Are there any other types of activities conducted?

Monitoring and enforcement
1) Does your office have boats for patrolling? What type of boats? HP of engine? Where are they docked?
2) Does the Fisheries Department provide training for boat patrols?
3) How many people are needed for patrolling? How many people are actually available?
4) Is the Fisheries Department authorized to apprehend or register cases against people who break fishing laws? If yes, on average, how often do you catch people who break the fishing laws?
5) Would you know approximately how many cases have been registered from your office/ in your area of jurisdiction, against fishermen for breaking fishing laws?

Perceptions
1) According to you, what is the role of the fisheries department in this fishery?
2) What are the main problems and highlights of the fishery?
Probe
       a. Is there a need to think about sustainability?
3) According to the MH Fishing Act, is it the responsibility of the FD to maintain a sustainable fishery?
4) What actions, are being taken by FD to ensure that fishing is taking place in a sustainable way?
5) What is the role of the Fisheries Department in other coastal development?
Probe
       a. Construction of fishing harbors – why is this necessary? Who is it for?
       b. Would you consider the construction of seawalls as a type of development?
       c. What is the reason for seawall construction?
       d. Does the Fisheries Department oversee the MMB's construction of harbors and seawalls?
        What kinds of inputs do you provide?
5) In case a fishery becomes uneconomical or in viable, and people stop fishing there, is it the responsibility of the FD to do something to revitalize the fishery? Or is there some other agency that plays that role?

APPENDIX 3: Questionnaire for fishermen

Date:	Name of district:
Origin a) Where were you born? b) Which town/village do you come from?	Do you: (Tick all that apply) Own a single boat Co-own a boat/boats Own multiple boats of a single type Own multiple boats of multiple types Not use a boat to fish (e.g. cast netting, rapan) Fish in a co-operative (not family operated) Work as an employee on someone else's boat Work as a partner in a family operated fishing vessel

If you own/work on a boat (previous question),
    then would you give us a few details about
    the boat?
Type of boat: Wooden/Fiber/ Other
 	
Length of the boat :
Type of fish storage space :
	Type of engine: Inboard /Outboard
	
	Horsepower of engine :
	
	Fuel used: Kerosene/ Diesel

Brand Name of Engine: Yamaha Suzuki Mercury Other (Specify)	Near which villages or towns do you fish? Do you have a primary landing site? Secondary landing site(s)?
Which and how many of the following fishing gears do you use?	I will now ask about your fishing habits What time of day do you usually leave for fishing? For how long do you stay out while fishing? In which season do you catch the most fish? In which season do you catch the least fish?

Mesh Size	Gill net	Trawl nets	Purse seine	Material
	Tiani (small)	Bottom	Mini	Nylon
	Nai (large)	Pelagic	Large	Plastic
				Monofilament

				Tyre	
				Taag	
Other					

Hooks and Line -
a) Length
b) Number of hooks

How is the catch/profits divided between crew and owner?	How is the fish sold? Auction/Agent What is the commission to auctioneer/agent?
In which areas do you fish for the following types of fish? Surmai (Kingfish) Cuttle (Cuttlefish) Ribbon/Bala (Ribbonfish) Mori/Mushi (Shark) Waghbeer (Whale shark) Een/Nali (Sawfish) Kasav (Sea Turtle) Saundala (Big jawed jumper) Shingala/Shengti (Catfish) Paplet (Pomfret – silver/chinese) Halwa (Black Pomfret) Bangda (Mackerel) Khaap Koker/Kokri Rawas (Indian salmon) Lep (Sole) Motial (Anchovy) Burata (Sweeper) Pedwa (Sardine) Gobra (Grouper) Tarli/Haiid (Sardine) Dhoma (Croaker) Chandka Ped (Sardine) Tol (Needlefish) Sonam Sula (Sillago)	Why do you fish in this area? This is where my family traditionally fished This is where my friends and/or relatives fish currently This is where I find the most fish of all types This is where I find the most profitable fish I cannot go to other areas, because fishermen from those areas prevent me from fishing there I can use certain fishing gear in this area that I will not be allowed to use in other areas It is too expensive in terms of fuel to travel beyond this area It is too expensive in terms of ice and storage facilities to travel beyond this area It is too dangerous to travel beyond this area in case of any accident or mechanical failure It is too dangerous to travel beyond this area due to the potential for unpredictable weather and high seas Other (Specify)
Up to which port do you go in the North? South? Up to what depth do you fish?	
Where do you get the latest news from? Fishing news Other news	Do you use a mobile phone? Do you use a smart phone? If yes, do you use internet on your Smartphone? If yes, then do you use fisheries related apps on your Smartphone? (govt provides information)
How much do you spend per month on your mobile phone? Rs 1 - Rs 100 Rs 101 - Rs 200	Do you watch television? Could you rate the importance of TV for the following information (1-not at all important,

	1	2	3	4	5	Other source	
Rs 201 - 300 / Rs 301 - Rs 400 / Rs 401 - Rs 500 / > Rs 500						5- extremely important):	
Entertainment							
Fishing practices elsewhere							
Health of Maharashtra's fishery							
New fishing technology							
Govt schemes and subsidies							
Fish ecology							
Fishing conflicts elsewhere							
Fishing sustainably							

Rs 201 - 300
Rs 301 - Rs 400
Rs 401 - Rs 500
> Rs 500

5- extremely important):

	1	2	3	4	5	Other source
Entertainment						
Fishing practices elsewhere						
Health of Maharashtra's fishery						
New fishing technology						
Govt schemes and subsidies						
Fish ecology						
Fishing conflicts elsewhere						
Fishing sustainably						

How often do you use this information in your own fishing practices?
Never
Less than Once a Month
Once a Month
2-3 Times a Month
Once a Week
2-3 Times a Week
Daily

Who do you turn to for help for the following?
Financial difficulties
Needing subsidies
Mechanical problems/ accidents at sea
Conflict with another vessel at sea
Conflict with a fisherman on land
Unauthorized vessels/ illegal fishing

Do you participate in decisions about fishing methods?
Yes
No

Do you consider yourself as belonging to a fishing group?
Yes
No

If yes, then which group do you belong to?

How do you get information regarding where to fish on a particular day? (Tick all that apply)
You call you friends and get information using your mobile phone
You meet your friends and neighbors on the shore and make a collective decision
You ask people whom you meet, while you are out on the water
You use government provided information (INCOIS) about fish availability
You decide where to fish based on currents and wind direction
You go fishing based on where you saw fish on the previous day

How often do you rely on this form of information?
Almost every day
Once a week
Once in two weeks
Once a month
Rarely

Do you use/follow any of these rules when you fish?
Not using a purse seine

Who makes these rules?

Fisheries department

Not using a trawl net No night fishing with trawl net No night fishing with purse seine Fishing only in the vicinity of my town/village No fishermen from other states can fish here No one from outside my fishing group/village can fish here No fishing on religious holidays (like Ganapathi) No fishing during the monsoon None Other (Please specify)	NGO State government Panchayat Groups of fishermen Fisheries society (the govt recognized body) Other (specify)
What other types of rules does this body make? To whom do these rules apply?	Do you participate in making rules about how to fish?
Who should enforce these rules? Fisheries Department Marine Police Coast Guard Village Panchayat Customs Fishermen's group Yourself or other individual fishermen Other (Specify)	Do you feel that you are consulted in the process of fishing rule making? Do you want to be consulted?

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