

MARE Publication Series 17

Derek S. Johnson  
Tim G. Acott  
Natasha Stacey  
Julie Urquhart *Editors*

# Social Wellbeing and the Values of Small-scale Fisheries

# **MARE Publication Series**

Volume 17

## **Series editors**

Maarten Bavinck, University of Amsterdam, The Netherlands

J.M.Bavinck@uva.nl

Svein Jentoft, UiT – The Arctic University of Norway, Norway

Svein.Jentoft@uit.no

The MARE Publication Series is an initiative of the Centre for Maritime Research (MARE). MARE is an interdisciplinary social-science network devoted to studying the use and management of marine resources. It is based jointly at the University of Amsterdam and Wageningen University ([www.marecentre.nl](http://www.marecentre.nl)).

The MARE Publication Series addresses topics of contemporary relevance in the wide field of 'people and the sea'. It has a global scope and includes contributions from a wide range of social science disciplines as well as from applied sciences. Topics range from fisheries, to integrated management, coastal tourism, and environmental conservation. The series was previously hosted by Amsterdam University Press and joined Springer in 2011.

The MARE Publication Series is complemented by the Journal of Maritime Studies (MAST) and the biennial People and the Sea Conferences in Amsterdam.

More information about this series at <http://www.springer.com/series/10413>

Derek S. Johnson • Tim G. Acott  
Natasha Stacey • Julie Urquhart  
Editors

# Social Wellbeing and the Values of Small-scale Fisheries

 Springer

*Editors*

Derek S. Johnson  
Department of Anthropology  
University of Manitoba  
Winnipeg, MB, Canada

Tim G. Acott  
Department of History, Politics and Social  
Sciences  
University of Greenwich  
London, UK

Natasha Stacey  
Research Institute for the Environment  
and Livelihoods  
Charles Darwin University  
Darwin, NT, Australia

Julie Urquhart  
Centre for Environmental Policy  
Imperial College London  
London, UK



Too Big to Ignore (TBTI; [toobigtoignore.net](http://toobigtoignore.net)) is a global research network and knowledge mobilization partnership, funded by the Social Sciences and Humanities Research Council of Canada, and supported by 15 partner organizations and over 300 members from around the world. The network aims at elevating the profile of small-scale fisheries, arguing against their marginalization in national and international policies, and developing research and governance capacity to address global fisheries challenges.

ISSN 2212-6260

ISSN 2212-6279 (electronic)

MARE Publication Series

ISBN 978-3-319-60749-8

ISBN 978-3-319-60750-4 (eBook)

DOI 10.1007/978-3-319-60750-4

Library of Congress Control Number: 2017946484

© Springer International Publishing AG 2018

This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Cover Illustration: The cover photograph was taken in the war-affected district of Trincomalee in Sri Lanka. It depicts the culminating day of a 14 day Annual Hindu temple festival attended by both Hindu and Buddhist fisher-folk in their fishing boats. On that day, fishing operations are completely suspended to seek divine protection and prosperity for their lives, fishing equipment, and fishing livelihood. — Gayathri Lokuge

Printed on acid-free paper

This Springer imprint is published by Springer Nature

The registered company is Springer International Publishing AG

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

# Foreword: Social Wellbeing and the Values of Small-Scale Fisheries

Small-scale fisheries are neglected around the world. They are often overlooked by policy-makers, and they are overlooked in public political consciousness. And yet people around the world tend to value and cherish the small-scale, artisanal fishing communities around their coasts. Even when these communities are being driven out of their coastal locations by tourism or residential development, the picturesque backdrop of the traditional fishing community, with the colourful boats, the nets hanging on beaches and quays and the hustle, bustle and excitement of the fish trading when a catch is brought in, remains an attractive feature. The new beach hotels will include photogenic images of local fishing communities as part of their publicity material, tourists love to wander along jetties or beaches looking at boats and gear, and tourists along with more wealthy locals will flock to eat the freshest fish and seafood in local restaurants. There is something about these communities that inspires us.

But this is not an appeal to some kind of romantic idealisation, and the chapters of this book do not fall into this trap. Fishing can be hard and dangerous work, and coastal communities are often exposed to the harshness and vagaries of nature. Losses of life are not uncommon, and in many cases, the people of coastal communities suffer from harmful wellbeing failures. Poverty and vulnerability are conditions that are often endemic in small-scale fishing communities.

This mix of observations begins to give some insight into the wellbeing conundrum of small-scale, artisanal fisheries. They are important in many different ways to wellbeing, but we seem to be unable to fully recognise what these contributions consist of and are unable to give due and serious policy attention to them. The chapters in this book provide a counter to that, and they use a multidimensional conception of wellbeing to elucidate the dynamics of change and the contemporary challenges of governance in small-scale fisheries. They explore the ways in which the material aspects of wellbeing in these fisheries (the extent to which they provide incomes, jobs and food) interplay with the relational and subjective dimensions of wellbeing. They adopt a social conception of wellbeing and pay particular attention to the relationships of production and exchange, of governance and of meaning-making that both construct wellbeing and also constitute it.

The chapters provide an invaluable richness of detail about the fisheries in question and use the analytical leverage of wellbeing to shed fresh light on some of the major challenges confronting small-scale fisheries at this time. They represent an excellent resource for scholars, policy-makers and practitioners that wish to move beyond routinised descriptions of fisheries livelihoods and the economics of ecosystems under pressure.

In this sense, the volume also makes a further and wider contribution to the social sciences and to policy thinking more generally. The authors take up the challenge that was issued in 2009 by Joe Stiglitz, Amartya Sen and Jean-Paul Fitoussi in their *Final Report for the Commission on the Measurement of Economic Performance and Social Progress*,<sup>1</sup> who asked academics and policy-makers to address themselves to the task of making human wellbeing a useful and meaningful concept with which to think about and make policy for sustainable societal development and progress.

The chapters in this book test, operationalise and advance a multidimensional framework for understanding wellbeing outcomes and the dynamics that generate these. They do not suffer from the types of wellbeing reductionism that are becoming increasingly problematic in the wider wellbeing field: They do not reduce the concept of wellbeing only to considerations of subjective wellbeing or happiness, nor do they consider only the material (objectively measurable) aspects of wellbeing. Rather, by using a social wellbeing framework, they show how the economic, social, cultural and political aspects must all be taken into account if we are to better understand the challenges that face these communities as they are swept along on a tide of modernisation.

In the study of the development of agrarian communities, much attention was given to the place of *the peasantry* in the development process, but no such discussion has been conducted for small-scale, artisanal fisheries. The chapters here provide some basis for such a discussion by variously and critically exploring issues such as processes of differentiation and inequality; of identity, community and the significance of place; and of the evolution and erosion of values in these communities. These processes all have implications for policy thinking about the big issues of the legitimacy of governance arrangements, sustainability and social justice.

Policy thinking for small-scale fisheries has been criticised for being dominated by crude models that tend to be highly aggregative and to focus on the material and biological aspects of the fishery. The upshot often has been ineffective policy and sometimes damaging governance. The chapters in this volume should encourage policy-makers and practitioners to think and do things differently.

These studies can encourage them to seek a better understanding of the different wellbeing interests and strategies that are at play in such fisheries. They can then consider explicitly the ways those different interests may be served by different policy directions. As the chapters illustrate, the adoption of a social wellbeing framing can enable policy-makers to better appreciate some of the major trade-offs that can flow from policy and management decisions (between different people in the

---

<sup>1</sup> <https://www.mysciencework.com/publication/show/502ed1c8e1e0bc2855b757c509cce4c9>

fishery, between small-scale fishers and interests in the wider society and between the fishery in the present and in the future). Not least the book points to the potential benefits of integrating considerations of the wellbeing of fishers and their families into governance and policy processes in small-scale fishing communities.

Department of Politics  
University of Sheffield  
Sheffield, UK  
March 2017

Allister McGregor



## Preface and Acknowledgments

This volume is inspired by the normative framing of the project *Too Big to Ignore: Global Partnership for Small-Scale Fisheries Research* (TBTI) that small-scale fisheries globally make profoundly important contributions to the societies of which they are part. Despite these contributions, TBTI draws attention to the fact that small-scale fisheries are typically marginalized and often face existential threats. While we subscribe to these claims, our intent in this book is to examine and more carefully theorize the value assumptions that undergird TBTI's arguments and to provide substantive illustrations of them from different parts of the world. We argue that the multidimensional and relational lens of the social wellbeing approach provides a ready and productive framework for critical analysis and reflection on how values are made and contested in small-scale fisheries globally.

The contributions to this collection bring together case studies from numerous countries in Asia, Europe, and Latin America. In each instance, chapter authors take inspiration from the Wellbeing in Developing Countries (WeD) approach to wellbeing to examine the dynamics of value in the small-scale fisheries that they are most familiar with. One of the innovative features of the volume is that, in doing so, they illustrate how thinking about small-scale fisheries' values in social wellbeing terms affords rich connections to a variety of other theoretical sources including political economy and political ecology, feminist theory, interactive governance, and co-constructionism. The approach has also sparked methodological innovations and has important implications for fisheries governance, to which many of the authors have drawn attention.

Our first and most significant debt of gratitude is to the TBTI project funded by the Social Sciences and Humanities Research Council of Canada and, particularly, to the project lead, Dr. Ratana Chuenpagdee. Ratana and TBTI have provided the institutional framework and support that allowed us to conceive of the idea of this book and bring it to fruition. Particularly important in that process was the support that TBTI gave to the book's authors to attend the Second World Small-Scale Fisheries Congress in Merida, Mexico, in September 2014, at which the first versions of the chapters were presented and discussed. Ratana also had an active hand

in contributing to the book intellectually and in her coauthorship of two chapters, and we thank her for that as well.

We also would like to thank the contributors to this volume for their hard work in response to the several rounds of revisions we requested of them and for their quick responses to other more technical matters, often at very short notice. The group has been a real pleasure to work with and has generated a good sense of camaraderie over the years. Thanks also to the contributors for their patience with an editorial process that has taken considerably longer than we had anticipated.

The book's two anonymous external reviewers provided extremely helpful feedback on the initial book proposal and then on the full manuscript. We would like to express our gratitude to them for their time, thoughtfulness, and thoroughness. The book is much improved for their efforts.

We also appreciate the support of the MARE Publication Series editors Dr. Maarten Bavinck and Prof. Svein Jentoft and the Springer staff Joseph Daniel and Fritz Schmuhl for their assistance with the editorial and publication processes.

Figure 1.1 is reproduced with permission from Daniel Pauly and Island Press. Figure 2.1 is reproduced courtesy of Springer Publishers. Figure 2.2 is reproduced courtesy of its author, Derek Johnson.

Winnipeg, Canada  
London, UK  
Darwin, Australia  
London, UK  
April 12, 2017

Derek S. Johnson  
Tim G. Acott  
Natasha Stacey  
Julie Urquhart

# Contents

<b>1</b>	<b>The Values of Small-Scale Fisheries</b> .....	<b>1</b>
	Derek S. Johnson	
<b>2</b>	<b>Co-constructing Cultural Ecosystem Services and Wellbeing Through a Place-Based Approach</b> .....	<b>23</b>
	Tim G. Acott and Julie Urquhart	
<b>3</b>	<b>Symbols of Resilience and Contested Place Identity in the Coastal Fishing Towns of Cromer and Sheringham, Norfolk, UK: Implications for Social Wellbeing</b> .....	<b>45</b>
	Carole Sandrine White	
<b>4</b>	<b>Adapting to Environmental Change Through the Lens of Social Wellbeing: Improvements and Trade-Offs Associated with a Small-Scale Fishery on the Atlantic Forest Coast of Brazil</b> .....	<b>75</b>
	Carlos Julián Idrobo	
<b>5</b>	<b>Understanding Social Wellbeing and Values of Small-Scale Fisheries amongst the Sama-Bajau of Archipelagic Southeast Asia</b> .....	<b>97</b>
	Natasha Stacey, Dirk J. Steenbergen, Julian Clifton, and Greg Acciaioli	
<b>6</b>	<b>How to Capture Small-Scale Fisheries’ Many Contributions to Society? – Introducing the ‘Value-Contribution Matrix’ and Applying It to the Case of a Swimming Crab Fishery in South Korea</b> .....	<b>125</b>
	Andrew M. Song	
<b>7</b>	<b>Undefining Small-Scale Fisheries in India: Challenging Simplifications and Highlighting Diversity and Value</b> .....	<b>147</b>
	Adam Jadhav	

<b>8</b>	<b>Enhancing the Wellbeing of Tamil Fishing Communities (and Government Bureaucrats too): The role of <i>ur panchayats</i> along the Coromandel Coast, India</b> .....	175
	Maarten Bavinck	
<b>9</b>	<b>Nomadic Fishers in the Hilsa Sanctuary of Bangladesh: The Importance of Social and Cultural Values for Wellbeing and Sustainability</b> .....	195
	Mohammad Mahmudul Islam and Ratana Chuenpagdee	
<b>10</b>	<b>Labour, Identity and Wellbeing in Bangladesh’s Dried Fish Value Chains</b> .....	217
	Ben Belton, Mostafa A. R. Hossain, and Shakuntala H. Thilsted	
<b>11</b>	<b>Risk, Reciprocity and Solidarity: The Moral Economy of Fishing in Trincomalee, Sri Lanka</b> .....	243
	Gayathri Lokuge and Mohamed Munas	
<b>12</b>	<b>History and Social Difference in Arguments for the Societal Values of Small-Scale Fisheries in Gujarat, India</b> .....	267
	Derek S. Johnson, Rajib Biswal, and Jyothis Sathyapalan	
<b>13</b>	<b>From Poverty to Wellbeing in Small-Scale Fisheries: The Governability Challenge</b> .....	293
	Svein Jentoft and Ratana Chuenpagdee	
<b>14</b>	<b>Reflections on Social Wellbeing and the Values of Small-Scale Fisheries: Implications for Research, Policy and Management</b> .....	317
	Tim G. Acott, Derek S. Johnson, Natasha Stacey, and Julie Urquhart	
	<b>Index</b> .....	333

# Contributors

**Greg Acciaioli** The University of Western Australia, Perth, WA, Australia

**Tim G. Acott** Department of History, Politics and Social Sciences, University of Greenwich, London, UK

**Maarten Bavinck** Department of Geography, Planning and International Development Studies, University of Amsterdam, Amsterdam, The Netherlands

Norwegian College of Fisheries, University of Tromsø, Tromsø, Norway

**Ben Belton** Department of Agricultural, Food, and Resource Economics, Michigan State University, East Lansing, MI, USA

WorldFish, Bangladesh and South Asia Office, Dhaka, Bangladesh

**Rajib Biswal** Natural Resources Institute, University of Manitoba, Winnipeg, MB, Canada

**Ratana Chuenpagdee** Department of Geography, Memorial University of Newfoundland, St. John's, NL, Canada

**Julian Clifton** The University of Western Australia, Perth, WA, Australia

**Mostafa A.R. Hossain** Department of Fish Biology and Genetics, Bangladesh Agricultural University, Mymensingh, Bangladesh

**Carlos Julián Idrobo** Assistant Professor, Interdisciplinary Centre of Development Studies, Universidad de los Andes, Bogotá, Colombia

**Mohammad Mahmudul Islam** Department of Coastal and Marine Fisheries, Sylhet Agricultural University, Sylhet, Bangladesh

Bremen International Graduate School for Marine Sciences (GLOMAR), University of Bremen, Bremen, Germany

**Adam Jadhav** University of California, Berkeley, CA, USA

Dakshin Foundation, Bangalore, India

**Svein Jentoft** Norwegian College of Fishery Science, UIT – The Arctic University of Norway, Tromsø, Norway

**Derek S. Johnson** Department of Anthropology, University of Manitoba, Winnipeg, MB, Canada

**Gayathri Lokuge** Wageningen University, Wageningen, The Netherlands  
Centre for Poverty Analysis, Colombo, Sri Lanka

**Mohamed Munas** Centre for Poverty Analysis, Colombo, Sri Lanka

**Jyothis Sathyapalan** Centre for Economics and Social Studies, Hyderabad, India

**Andrew M. Song** ARC Centre of Excellence for Coral Reef Studies, James Cook University, Townsville, Australia

WorldFish, c/o ARC Centre of Excellence for Coral Reef Studies, Townsville, Australia

**Natasha Stacey** Research Institute for the Environment and Livelihoods, Charles Darwin University, Darwin, NT, Australia

**Dirk J. Steenbergen** Charles Darwin University, Darwin, NT, Australia

**Shakuntala H. Thilsted** WorldFish, Bangladesh and South Asia Office, Dhaka, Bangladesh

**Julie Urquhart** Centre for Environmental Policy, Imperial College London, London, UK

**Carole Sandrine White** School of International Development, University of East Anglia, Norwich, UK

# Chapter 1

## The Values of Small-Scale Fisheries

Derek S. Johnson

**Abstract** This chapter, and the book that it introduces, are part of a larger project that aims to contribute to reversing the relative neglect of small-scale fisheries in fisheries policy globally. The project seeks, in other words, to build an argument for the societal contributions that small-scale fisheries make. In this chapter I position that effort in relation to a fuller understanding of value, one that goes beyond just value as contribution but recognizes the diversity and relationality of values in small-scale fisheries. To provide a framework for our effort, I turn to the social wellbeing approach which sees wellbeing not only as living well according to a reference set of values but also as the material, relational, and subjective capabilities that facilitate or hinder the pursuit of that which is valued. The social wellbeing framework provides the logic and structure for the development of a relational approach to values in small-scale fisheries that integrates quantitative and qualitative elements. The chapter concludes with an overview of the ways in which the remaining contributions to the book creatively engage with, and sometimes dispute, the framework presented here.

**Keywords** Values • Social wellbeing • Relationality

### 1.1 Introduction

It is important from the outset of this book to recognize that it is a product of the project Too Big to Ignore: Global Partnership for Research on Small-scale fisheries (TBTI).<sup>1</sup> By its very title, that project is explicit in recognizing, and subscribing to, the pro-small-scale fisheries orientation that commonly motivates research on the sector. From this perspective, small-scale fisheries offer a way of making a living

---

My co-authors on this volume, Tim Acott, Natasha Stacey, and Julie Urquhart, provided very useful comments and edits on earlier drafts of this chapter that considerably strengthened it. Ratana Chuenpagdee also had valuable inputs at various points in the writing process.

<sup>1</sup>[Toobigtoignore.net](http://Toobigtoignore.net)

D.S. Johnson (✉)

Department of Anthropology, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

e-mail: [derek.johnson@umanitoba.ca](mailto:derek.johnson@umanitoba.ca)

from the environment that fulfils a set of admirable traits, or valued characteristics and dispositions, including a typically more sustainable relationship with the ecosystems on which they depend in comparison to large-scale fisheries (Pauly 2006). At the same time, the TBTI project shares the concern of many researchers that small-scale fisheries are under threat not only in terms of their material base, but also as a distinctive way of life (Chuenpagdee 2011; Urquhart and Acott 2014, Jentoft and Chuenpagdee, Chap. 13 this volume). The project, in effect, seeks to make the contributions of small-scale fisheries to society explicit as the foundation for a larger argument for societal support to small-scale fisheries. This book contributes to the larger TBTI project by proposing an approach that conceptualizes the contributions of small-scale fisheries. It does so in two ways. First, it makes an argument for the importance of small-scale fisheries based on two perennial human concerns, wellbeing and values. These concepts are receiving considerable attention at present for precisely their usefulness defining alternatives to the currently highly problematic ecological and social effects of human activities in the Anthropocene (Millennium Ecosystem Assessment 2005; Hicks et al. 2016; Rockström et al. 2009). Second, this book provides a global set of studies that in engage in different ways with the wellbeing and values approach proposed in this chapter, and thereby identify illustrations of its usefulness and ways in which the approach can be further developed.

This introductory chapter starts by laying out the theoretical basis for the book's central argument that understanding the values of small-scale fisheries must be multi-dimensional, sensitive to context and change, and reflexive. We need to build an understanding of value that is conceptually deep yet also speaks to the practical concerns of communities and policy makers in the real world. With that in mind, the book's authors recognise the importance of quantifiable and objective assessments of small-scale fisheries, approaches that are amenable to comparing different contexts and to making generalizations about them. At the same time, and crucial to the argument, a central part of the definition of what small-scale fisheries are, and what they contribute, is the contextually-specific, non-reducible qualitative aspects of small-scale fisheries; that is, the meanings and social connections that they provide to the participants in them, and also to other members of society who appreciate and interact with them. It is in the spirit of this effort to capture the variety of ways in which small-scale fisheries are important, and the varying ways in which those contributions are perceived, that the chapter wishes to argue for the diverse values of small-scale fisheries, and not just their value.

This introduction begins with a reflection on the idea of values in relation to small-scale fisheries and then goes on to suggest that social wellbeing offers a conceptually robust framework for investigating and conveying the values of small-scale fisheries. The connection between values and wellbeing is not arbitrary; the two concepts are deeply, indeed inextricably, related (Deneulin and McGregor 2010). In our view, the pursuit of a good life, or living well, is shaped profoundly by the particular values to which one subscribes. At the same time, the ability to live well depends upon the degree to which one has the socially-recognized capabilities to achieve that which is valued. I argue that values and wellbeing are ineluctably



social relational terms in and of themselves and in the ways in which they relate to each other. On this conceptual basis, I then present an array of indicators that might form the basis for an approach to arguing for the values of small-scale fisheries that recognizes the embeddedness of values in particular historical contexts, places, and social relations. The indicators are provisional because the set necessarily has to be adapted to each particular fishery and the orientation of the researcher. The final section in this introduction presents each of the book's contributions in relation to the overarching conceptual approach we are exploring.

## 1.2 The Values of Small-Scale Fisheries

As Adam Jadhav points out in this volume (Chap. 7, p. 149), trying to precisely define small-scale fisheries is a mug's game. Definitions, and the parameters of definitions, vary dramatically by jurisdiction, to the point where small-scale fisheries in one country may be considered a larger scale in another (Béné et al. 2015; McFadyen et al. 2011). As I have argued elsewhere (Johnson 2006), rather than seeking to nail down universal characteristics of small-scale fisheries, it may be wiser instead to suggest that they stand for a set of values that contrast with the capital-intensive, profit-oriented, mobile capitalist enterprise that is typical of the large-scale and, particularly, industrial sector of fisheries. Small-scale fisheries, from this perspective, are by definition context-specific and committed to place and community by embedded social and economic relations and particular histories (St. Martin 2007).

The positive re-evaluation of small-scale fisheries that we propose, on this basis, however, has to be canny. On the one hand, it has to provide the objective, preferably quantitative, evidence of the societal contributions of small-scale fisheries to satisfy the accounting logic of state policy and neo-liberal discourse yet it also has to insist that narrow accounting approaches are inadequate and likely destructive of the qualitative values of small-scale fisheries. The quantitative representations of the societal benefits of small-scale fisheries thus have to be inextricably coupled with the qualitative aspects that make them unique and meaningful to their members.

These points necessitate a careful reflection on small-scale fisheries as a source and locus of value. How that value is represented, or indeed if it is represented, is a crucial question: do representations do justice to the values of importance to small-scale fishers themselves or do they reduce values to particular, more manageable and marketable fragments? The latter risk is highlighted in the growing literature on the fragmenting and destabilizing effects of neo-liberal governmentality on small-scale fisheries (Butler 2008; St. Martin 2007; Pinkerton and Davis 2015). The narrow treatment of small-scale fisheries as conglomerates of petty business operators and small-scale fishers as rational economic maximizers is foundationally threatening to the social, cultural, and historical embeddedness of small-scale fisheries. The governmentality literature shows how small-scale fishers may be re-embedded in new systems of governance that profoundly reorient their interests and rationalities

(Carothers 2010; Johnsen 2014). The approach that we develop in this book seeks to find ways to support the intangible but critical social relational and cultural aspects of small-scale fisheries as part of a broader strategy of value representation that also speaks to their quantitative contributions. The challenge is never to limit arguments to the latter. To deepen our explanation of this position, it is first necessary to further elaborate our theory of value.

With regard to the definition of value, we are interested in sensitive approaches to evaluate the importance of small-scale fisheries to individuals, communities, and society more broadly. Attention to the broader social contribution of small-scale fisheries presumes that small-scale fisheries are regarded with some positive favour by larger national populations, or that such an attitude can be cultivated. It also presumes that such positive associations rest on certain specifiable aspects of small-scale fisheries that are seen as valuable by more than just fishing populations, even if we also want to consider the values of small-scale fisheries that may be of relevance only to small-scale fishing populations, or groups or individuals within them. We recognize that our approach emphasizes an understanding of value as contribution (alternatively, benefit or assigned value), whether tangible or intangible (Song, Chap. 6 this volume). At the same time, we note that contribution has a narrower connotation than value in the sense that contribution may be considered just one meaning of value (cf. Conner et al. 2016). Our use of the qualifier *sensitive* before approaches in the first sentence of this paragraph implicitly acknowledges this point. Our argument turns on the importance of recognizing how the contributions of small-scale fisheries are nested socially, historically, and spatially in particular held value orientations, or culturally specific sets of meaning (Seymour et al. 2010).

Value is a core concept within the social sciences but also one that reflects internal divisions within them and, at a finer scale, within the social science of fisheries. From the perspective of neo-classical economics, (assigned) value is expressed in market terms as utility, measurable by the money metric. This is translated in the economics of fisheries as aggregate measures of the societal financial contribution, or cost, of fisheries (World Bank 2009). The assumption within neo-classical economics that individual utility can be aggregated at the societal level and thereby represent a true measure of the social good is contested by sociology, anthropology, human geography, and critical perspectives within economics itself (Chan et al. 2012). From these perspectives, utility theory has an impoverished vision of human psychology and the ties of human relatedness, even if aggregate economic value remains one constituent of assessing the contribution of a sector such as fisheries. Rather, it is important to think of value in the plural, as values. Value, critically, also is not reducible to a single monetary metric or, at least, when such reductions are needed to serve a tactical purpose, they should be seen as partial and very imperfect reductions of a much richer symbolic reality.

This non-economistic social science position has relevance at the level of the individual actor who is assumed to be motivated by particular ideas or images about how the world works (Jentoft et al. 2010). These held value orientations (Song, Chap. 6; Johnson et al., Chap. 12 this volume) inform action at a profound and often subconscious level and the normal inability to make them fully explicit also makes it

hard to recognize their inconsistencies and contradictions. This fundamental way of understanding values in the non-economic social sciences also draws in the notion that persons are embedded within particular social, cultural and environmental contexts (Polanyi 2001[1944]; Granovetter 1985). These contexts have an existence that transcends each person, are diversely perceived, understood, and often constructed in internally contradictory ways, yet are internalized as reference points for action. Values vary not only between individuals and groups, but also over time. The rise of global environmental awareness is just one large-scale reflection of this kind of historical shift. At an even larger scale, the extension and deepening of capitalism has had a profound impact on the disembedding and re-embedding of people and communities globally (Novak 2003, literature on governmentality in fisheries above). Yet, even capitalist processes of disembedding cannot undermine human capacity to create diverse meanings and to establish meaningful connections with one another outside of the narrow logic of calculated self-interest. Human economies, including capitalist economies, should thus not be seen as autonomous markets composed of interchangeable producers and consumers, but rather the internally diverse products of particular histories, cultural systems, social relations, and deliberate human (and non-human) action (Roelvink et al. 2015).

An earlier expression of the economic embeddedness argument was the characterization of small-scale fisheries as a form of domestic commodity production (MacDonald and Connelly 1990; Sinclair 1985). This analytical position in a sense prefigures later writing on livelihoods in fisheries (Allison and Ellis 2001): it is concerned with how small-scale fishers draw on diverse sources of sustenance that include both non-market forms of familial economic activity and market-oriented production. In distinction from the livelihoods approach, however, writing on domestic commodity production emphasizes how this blend of economic activities is associated with a rationality distinct from the profit or *homo economicus* orientations of neo-classical firms and individuals. Rather, domestic commodity producers are interested foremost in the perpetuation of the family enterprise, as van Ginkel elegantly summarizes, though with regard to families technologically practicing industrial fishing: “the [fishing] firm is much more than a vehicle to earn an income. It is at the same time a source of pride and identity, intrinsically a *raison d’être*” (Ginkel 2009: 298–99). Theirs is a rationality, thus, that as many observers of fisheries besides van Ginkel have noted includes an attachment to fisheries as much more than a source of income but as profoundly determinant of how fishers see themselves, of their subjectivities (R. B. Pollnac and Poggie 2006; P. R. Thomson et al. 1983; Subramanian 2009).<sup>2</sup>

In an economic sense, therefore, domestic commodity production is a way of pointing to a key distinguishing feature, and value, of small-scale fisheries. The blend of production for market and production for familial and intrinsic rewards is

---

<sup>2</sup>Sider and van Ginkel remind us, however, that domestic commodity production should not be construed as ever resilient in the face of economic and regulatory threats, nor should it be glorified as an easy compromise – it can just as soon be experienced as a position of vulnerability and exploitation (Ginkel 2009; Sider 2003).

a window into the reasons for the depth of attachment many small-scale fishers feel towards their profession and helps explain the satisfaction fishing offers them. Domestic commodity production also offers a mode of economic organization that is not founded on profitability alone, but also values the contributions of productive activity in affirming social relationships and identity.

This last point leads to a further contribution to value theory in the social sciences: values are constructed through human action while they also motivate human action. There is thus a relationality to value that links human agency and change as we try to live consistently with our values yet as we also adjust our values to lived experience (Graeber 2001). The idea of eudaimonia, the capacity to engage in ongoing effort to pursue our life projects, or to self-actualize (Fischer 2014; Ryan and Deci 2001; Acott and Urquhart, Chap. 2 this volume), relates to this idea of values as both foundational to, and as a product of, our active engagement with our environments in the broad sense. It also allows us to reaffirm a dominant theme in the maritime anthropology of fisheries: the satisfaction that the occupation of fishing brings to its practitioners (e.g. Acheson 1981; Ginkel 2009; McGoodwin 1990; Pollnac and Poggie 2006; Trimble and Johnson 2013). In value terms, this literature can be thought of as bringing out the intrinsic value of fishing as an occupation – for those involved in fishing, the value that their work has in itself means that fishing is not simply interchangeable with other occupations (e.g. Pollnac et al. 2001). It is an intrinsic value that is learned and then remade through the lifelong practice of working in a maritime environment.

A further complication for assessing the value of small-scale fisheries is positionality: how small-scale fisheries are valued depends on who is doing the valuing. At the grossest level, what is of value to a small-scale fisher may be very different than external, non-fisher, evaluations of the importance of small-scale fisheries. This is to say that the values of small-scale fisheries are embedded in particular social, political and cultural contexts that are internally varied, subject to disagreement, and which change over time. Nonetheless, a key node of embedding for small-scale fisheries is community, some notion of which it is important to retain even while recognizing that communities are often fractious and may be repressive for certain groups within them (Jentoft 2000; Joseph 2002; Belton et al., Chap. 10 this volume). In small-scale fisheries, community is affirmed by notions of fairness, share systems, kinship connections, locally adapted legal systems, shared attachment to place and profession, and subjectivities which draw these elements together (Acheson 1981; Acott and Urquhart 2014; McGoodwin 1990; St. Martin 2007; Bavinck et al. 2013).

While for political reasons in the defense of small-scale fisheries it may be necessary to make generalizing, quantitative statements about the societal contributions of small-scale fisheries, these have to be balanced with a rich array of case studies showing the embeddedness of small-scale fisheries, their diversity, and the density of reciprocal social relations by which they are constituted. Equally, the picture of small-scale fisheries needs to be wary of romanticization. We should not let our

admiration for small-scale fisheries predispose us to seeing them as static, unable to adapt, or internally homogenous or let it blind us to the ways in which they fall short, such as in their social or economic inequalities, or their use of ecologically destructive fishing methods.

### 1.3 Social Wellbeing as a Guide for Analyzing the Values of Small-Scale Fisheries

The challenge that this volume highlights is how to devise an approach to valuing small-scale fisheries that is non-reductionist. Such an approach needs to be able to make positive, sometimes quantifiable, statements at global and other scales about the contributions of small-scale fisheries (Pauly 2006; Thomson 1980) while not losing sight of the particular and variable qualitative and embedded features often viewed as of central importance by fishers and others who value them. Wellbeing theory meets these criteria because it is interested in the diverse and multi-dimensional needs and aspirations that characterize what it is to live well for particular people in particular times and places (Agarwala et al. 2014). In this it responds to broader critiques of reductionist economic understandings of human development that rest on measures like GDP (OECD 2011: 16). Wellbeing is particularly apt for our project for two reasons. First, it similarly recognizes the tension between quantifiable, objective measures of wellbeing, and the contextually-specific subjective factors that influence perception of what is required for wellbeing. Second, as noted above, wellbeing and value are relational concepts. Our notions of the good life are framed by socially and culturally specific values yet we require a certain degree of wellbeing, or freedom (Sen 1999; Coulthard et al. 2011), in order to pursue what we value (Fischer 2014).

The literature on wellbeing draws together contributions from economics, development studies, psychology, and other disciplines (Gough and McGregor 2007). It is united by its attention to the multiplicity of ways in which humans constitute their wellbeing. Within that broader area of inspiration, there are different emphases and ways of relating the different components of wellbeing (Agarwala et al. 2014; Weeratunge et al. 2014). In this volume, we use a social wellbeing approach to frame our analysis. Social wellbeing is an approach developed in the UK (Gough and McGregor 2007) that attempts to synthesize lessons from the international development literature about poverty alleviation into a framework for research and application in development interventions. That approach has the potential to address a major limitation in the Millennium Ecosystem Assessment (Millennium Ecosystem Assessment 2005), which was otherwise very important in bringing the idea of wellbeing to a broad audience. The MEA saw ecosystems as providing a range of services (cultural, provisioning, regulating and supporting) that contribute to human wellbeing. The MEA approach, however, insufficiently recognized the relationality of wellbeing; the idea that perceptions of wellbeing, the degree to which one's well-

being is met, and place of a healthy environment in one's perceptions of living well can all equally shape human impact on the environment (Armitage et al. 2012). The sustainable livelihoods framework has a similar shortcoming in this regard, in the way it sees wellbeing as an outcome rather than also as intrinsic in the 'capitals' that constitute particular livelihoods portfolios and a basis for the capacity to act of individuals (Scoones 1999; Idrobo, Chap. 4 this volume). While the social wellbeing approach in its original formulation paid relatively little attention to the environment, it provided an analytical logic for addressing that question, which this volume contributes to elaborating (see also, Armitage et al. 2012; Breslow et al. 2016). For the social wellbeing approach, wellbeing is not just something delivered through ecosystem services (a kind of value provided by ecosystems), but is also a driver, or motivator of action with regard to the environment. This relational view of wellbeing thereby opens up the possibility of using wellbeing analytically as a way of understanding the domains of life that structure what is meaningful, and hence motivate human action (Deneulin and McGregor 2010).

This analytical structure in the social wellbeing approach is latent in its definition of wellbeing (McGregor 2008), as modified to include human-environment relations by Armitage et al., "A state of being with others and the natural environment that arises where human needs are met, where individuals and groups can act meaningfully to pursue their goals, and where they are satisfied with their way of life" (Armitage et al. 2012: 3; Breslow et al. 2016: 2). Consistent with the broader literature on wellbeing, the social wellbeing approach argues that wellbeing can first be divided into objective and subjective dimensions. The objective dimension consists of the assets or resources that people possess, such as health status, education levels, or income. The subjective dimension stands for personal evaluations of how one is doing. The social wellbeing approach then adds a third, critical dimension: the relational. This dimension refers at one level to the social relationships that a person is involved in. More profoundly, however, the relational dimension is also an acknowledgement that what we value materially and how we perceive how we are doing depends on our relationships with others and with ideas that frame our social relations (Coulthard et al. 2011: 457; White and Ellison 2007; Deneulin and McGregor 2010). If, for example, our material needs are met quite respectably, but we are surrounded by people who are much wealthier and we are informed by a consumption ethic, we may consider ourselves to be deprived.

The relational dimension also highlights the social variability in assessments of what is valuable and thus links to the concern expressed above that our research be attuned to diversity. Social wellbeing provides a way to address the variability of assessments of small-scale fisheries' values, including distinctions within small-scale fisheries but also between small-scale fishers and other interested parties. In terms from another disciplinary tradition, social wellbeing sees small-scale fisheries and their valuation in complex systems' terms (Armitage et al. 2012). Valuations can be seen as diverse emergent properties of small-scale fisheries that change over time. In practical terms, the challenge is how to use social wellbeing's relational perspective as the basis for a methodology to argue for the quantitative and qualitative values of small-scale fisheries. Box 1.1 provides a non-exhaustive list of some

**Box 1.1: Non-exhaustive List of Values of Small-Scale Fisheries Following a Social Wellbeing Logic**

Objective or material

- Economic contributions of SSF
- Distinctive practices of, and technologies employed, by SSF
- Ecological role and impacts relative to other users
- Uses of space by small-scale fishers and related groups

Subjective

- Value given to fishing and fishing practices (e.g. job satisfaction; non-fisher admiration or disdain for SSF or ignorance of them)
- Distinctive identities and social practices of SSF
- Particular meanings and attachments associated with coastal ecologies and maritime space by small-scale fishers

Relational

- Consideration of importance of SSF, and aspects of SSF, for different groups (e.g. insiders/ outsiders/ men/women; owners/crew; etc.)
- Considerations of variations in understanding and expression of objective and subjective dimensions for different groups
- Contributions of SSF institutions to coastal and fisheries governance
- Human-environment interactions and ecological knowledge

of the key variables and factors that should be considered in assessing the values of particular small-scale fisheries as structured according to a social wellbeing logic. The categorization of each variable should not be seen as a strict association, as each variable will also have connections to the other dimensions of wellbeing. The list shows the potential of the social wellbeing framework to address issues of value that are not just social and cultural in nature, but relate to other disciplinary interests, including natural science perspectives.

The objective and some subjective dimensions are more amenable to quantitative measurement than the relational, although even here their values may not become fully apparent without using qualitative or arts-based elicitation approaches (Acott and Urquhart 2015; White, Chap. 3 this volume). Some subjective dimensions and the relational dimensions showing the variation in and complexity of how small-scale fisheries are valued are only properly addressed through in depth qualitative studies. The following section takes the first step in operationalizing this framework in an attempt to balance relatively objective measures of small-scale fisheries' societal contributions with detailed case studies to indicate the complexity entailed in making such objective evaluations.

## 1.4 Operationalizing the Social Wellbeing Framework to Argue for the Values of Small-Scale Fisheries

The social wellbeing-inspired framework that we propose here could ideally be used to inform studies that aim to generate large-scale quantitative data, small-scale qualitative data, or a combination of the two. The contributions to this book mostly emphasize the latter, but many also have tried to combine elements of both objectives. A list of the kinds of data that might be employed to argue for the contributions of small-scale fisheries at different scales is outlined below and divided into two sections, one on quantifiable ‘objective’ data and one on qualitative case studies. It is easiest to identify quantitative indicators for the objective or material section (Box 1.1) but, with some creativity, it is possible to also quantify some of the subjective and relational values of small-scale fisheries. It should also be recognized that the material features of small-scale fisheries are valued in ways that reflect subjective perceptions and social relations. The material dimensions, in other words, always need to be contextualized or qualified when talking about particular places or fisheries (Acott and Urquhart 2014).

**Area 1: Possible Quantitative Indicators of Values of Small-Scale Fisheries** Much of the literature on small-scale fisheries can be read as an overt or implicit advocacy for the values of the sector using quantitative indicators, and thereby provides the benchmark for this area of work. The overt advocacy of small-scale fisheries is most pithily conveyed in the original summary table that compares small-scale and industrial, or large-scale, fisheries put together by Thomson (1980) and then updated by Pauly (1997, 2006, Fig. 1.1) and Berkes et al. (2001). This table gives quantitative support for the assigned economic and ecological values of small-scale fisheries using indicators like the total number of fishers employed in the sector, number of dependents, and catch per energy input. Some of these classic indicators have become standard in documents that advocate on behalf of small-scale fisheries. Most prominently, total employment and catch contributions are foregrounded in the FAO flagship documents on small-scale fisheries, along with indicators pertaining to economic multipliers and food and nutritional security among others (FAO 2005, 2015). Another complementary area of work has been on the poverty reduction function of small-scale fisheries (Christophe Béné 2003; Christophe Béné et al. 2010; Jentoft and Eide 2011; Onyango and Jentoft 2010) and their importance in providing employment for women as well as men (Bennett 2005; Frangoudes 2011; Harper et al. 2013; Kleiber et al. 2015; Weeratunge et al. 2010; Williams 2008).

A non-exhaustive list of quantitative indicators of the societal contributions of small-scale fisheries that roughly follows the social wellbeing logic is given in Table 1.1. Indicators are broken into two groups:

Group 1: Indicators that can be addressed through existing secondary source data on national-level objective contributions of small-scale fisheries.



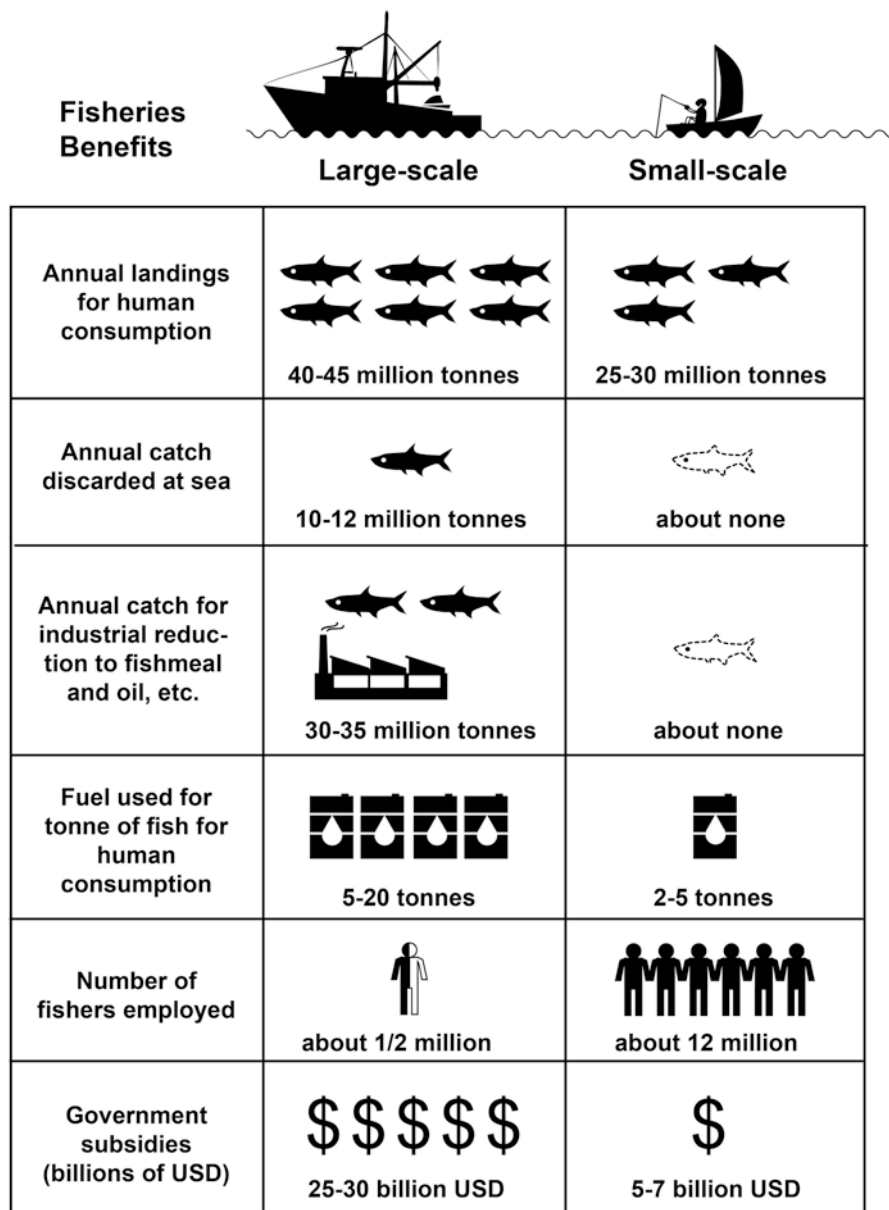


Fig. 1.1 Comparison of benefits from large and small-scale fisheries (Reproduced with permission of D. Pauly and Island Press from Pauly and Zeller 2016)

**Table 1.1** Non-exhaustive list of quantitative indicators of contributions of small-scale fisheries (SSF)

Group	Indicator
1	Employment in SSF by gender
	GDP contribution of SSF
	SSF fish production as % of total national production
	Fish as % of national animal source food
	Energy consumption per tonne of fish caught
2	% part time vs. full time fishers in SSF sector (economic integration of SSF into larger economies)
	Seasonal and annual variability in SSF employment (stability of employment in SSF)
	Rates of women's formal and informal paid work in SSF (gendered contribution of work in SSF)
	Degree to which distinctive material culture aspects of SSF present (e.g. architecture, dress, boat design)
	Number of distinct SSF 'ethnic' groups recognized
	Number of distinct fisher languages or dialects
	Subjective wellbeing of SSF compared to that of general population
	Fisher and non-fisher perceptions of the sub-national, regional, and national economic, cultural, and social values of SSF (Likert scale type response)
	Richness of SSF systems of indigenous knowledge
	Degree to which indigenous knowledge informs formal understandings of fisheries ecology
	Spatial extent of SSF along national inland and marine coastlines
	% of total coastline inland and marine used by SSF
	Comparison with extent of other coastal users
	Degree to which SSF rights to coastal space are formally recognized
	Degree to which indigenous SSF management institutions are present
	Degree to which arrangements exist for SSF to contribute to formal fisheries governance processes

Group 2: Indicators on the diverse contributions of small-scale fisheries that are less likely to be easily addressed through existing data and that will likely require innovative analysis of secondary sources or the undertaking of original research focused on them.

The indicators listed in Table 1.1 should not be seen as comprehensive, but rather to be refined and elaborated for particular cases or countries. They should be seen as important areas for inquiry, rather than the exact questions that have to be asked in any particular study. None of the chapters in this volume seeks to systematically apply these indicators but they are drawn on for inspiration in varying ways by the volume's contributors and may be a useful starting point for other researchers working on values in small-scale fisheries.

**Area 2: The Qualitative Values of Small-Scale Fisheries** Research aimed at bringing out the non-reducible qualitative values of small-scale fisheries requires

significant immersion, typically ethnographic or through participation, in particular small-scale fishery contexts. Such studies necessarily have to have an openness of vision to them in order to allow for emergent understandings of how small-scale fisheries are viewed and valued. Nonetheless, the social wellbeing inspired framework of Box 1.1 and the more detailed set of quantifiable indicators above can provide a reference framework for inquiry. Studies might seek to be more wide-ranging or highly focused in their scope. Studies would ideally add richness to our understanding of the values of small-scale fisheries by showing how perceptions of value vary and, indeed, are even contested. Topics might include the importance of distinctive small-scale fishery cuisines, narratives about coastal or aquatic places, the commodification of romantic notions of small-scale fisheries' lifestyles for tourist consumption, fears about inter-generational declines in fisheries knowledge, belief systems and rituals in small-scale fisheries, job satisfaction and way of life studies, livelihoods plurality, etc.

## 1.5 Contributions to the Volume

The chapters that follow were written in response to a framework document, based on the social wellbeing approach, that Johnson prepared in consultation with Ratana Chuenpagdee in 2013. That document presented a first sketch of the approach I present above along with suggested methodological guidelines to participating authors that built of the social wellbeing logic. Contributors to this volume were asked to write chapters that used the framework document, and the intent of TBTI more broadly, as a point of reference. They were not required to adhere rigidly to the framework that we proposed, but they were expected to reflect on how their studies related to it. Contributors were also not required to do original research for their contributions, but were welcome to reinterpret previous research in terms of the challenge of arguing the value of small-scale fisheries in a way that is politically astute but also respects the fundamental qualitative values of small-scale fisheries. Where possible, contributors were also asked to pay attention to both quantitative and qualitative data in their case studies. Finally, we encouraged contributors to provide a balanced assessment of how well their particular small-scale fishery is doing. In other words, if their focus fishery is performing poorly in certain areas, and is thus incurring a broader societal cost, we asked this to be acknowledged as much as the fishery's societal benefits.

An indication of the rich analytical vein of the framework that we proposed to the book's authors is the considerable variety in the way that they have taken it up. The contributions diversely prioritize theoretical, methodological, and applied insights. They also vary in the degree to which they engage with the core concepts of value and social wellbeing and in their use of supporting empirical materials. In the remainder of this chapter, I map out the variations between authors along these parameters of difference, with focus particularly on their theoretical contributions, and, in so doing, give a first overview of each contribution. I leave a fuller discussion of the implications of the contributions for our values and social wellbeing

framework and for arguing for the values of small-scale fisheries until the book's conclusion. As I introduce the chapters through a consideration of their thematic intersections, I do not discuss them in the order they appear in the book, which, aside from Chaps. 2 and 13, is by geographical region.

A first, simple, descriptive triage of the contributions to this book is by geography and scale of analysis. As is apparent from the book's contents, its geographical weight is on Asia and, particularly, South Asia. This reflects the TBTI-specific institutional history of the book: the TBTI working group out of which this book emerged was coupled early in the project with an area working group focused on Asia. The geographical focus also reflects my particular network as initiator of the project. In terms of scale of analysis, the largest number of chapters take a regional comparative approach either by contrasting different cases or making observations drawn from a data set at sub-state (Bavinck, Belton et al., Islam and Chuenpagdee, Johnson et al., White), national (Jadhav), or regional (Acott and Urquhart and Stacey et al.) levels.

Another way to distinguish among the book's chapters is by their relative conceptual, methodological, substantive, and applied contributions. First, while all of the authors make significant conceptual contributions to the guiding ideas about wellbeing and values laid out in the introduction, Chaps. 2 and 13 are oriented primarily to conceptual matters. As such, they provide useful bookends for the core chapters of the volume and, also, important extensions to the arguments presented in the introduction. Chapter 2, by Acott and Urquhart, uses a sense of place perspective to provide a crucial basis for analyzing how the environment fits in small-scale fisher systems of value and conceptions of wellbeing. Through the idea of co-construction, their theorization dovetails with the relational perspective that I elaborate above. There is a natural flow between Acott and Urquhart's conceptual contribution and the following chapter by White who provides a highly complementary and richly detailed study of place-based meanings, identity, and socio-economic change on the North Norfolk coast. In its emphasis on change, her chapter also introduces a theme that is a central concern in all of the chapters following, up to and including Chap. 12. For contemporary small-scale fisheries, change is ongoing and is bringing with it some opportunities but, more commonly, existential threats. In the closing chapter of the book, Chap. 13, Jentoft and Chuenpagdee use the interactive governance framework to propose a way of integrating values and wellbeing in efforts to better advocate for the interests of small-scale fishers. Their argument turns on the idea that governance can be differentiated into different orders, which raises the key question of how values inform, or fail to inform, institutional process and management action in small-scale fisheries. In their chapter, they lay out an approach for bridging theory and political practice in such efforts.

In Chap. 5, Stacey et al. make two valuable theoretical interventions in their analysis of the astonishing spatial reach of the Sama-Bajau of Southeast Asia. Their first intervention complements the book's concern with the changing circumstances that small-scale fisheries face: these changes are frequently driven by factors that operate across scale. They visualize the intersection of change and scale by modifying

a figure taken from Weeratunge et al. (2014: 267). While they raise the topic of scale explicitly, given its centrality to their argument, scale is implicit in many of the book's other contributions. Their second intervention is with regard to values, where they demonstrate a keen sense of relationality and context-specificity in their suggestion of the appropriateness of an idea of fluid values for evoking the experience of the Sama-Bajau.

Four chapters, in particular, provide useful additional theoretical background to the idea of values. In Chap. 5, Song flags several important conceptual distinctions, such as that between assigned and held values, as he sets the scene for his historically-informed analysis of the multi-scale contributions of the Yeonpyeong swimming crab fishery in South Korea. In Chap. 12, as part of broader analysis of the effects on wellbeing of economic and governance changes in the Gujarat fishery, Johnson et al. link values to the feminist idea of positionality. They argue that how the assigned values of fish and fishing in the fishery are perceived is influenced profoundly by the diverse factors, such as gender, caste, and class, that shape how processes of change in the fishery have been experienced. In Chap. 11, through an application of the idea of moral economy to religious differences in the economic practice of fishing, Lokuge and Munas employ a classic and productive analytical tool for thinking about the relationality of values. Lokuge and Munas' contribution also shares a theoretical contribution (albeit implicit on their part) with Belton et al.'s Chap. 10 on the social wellbeing contributions of dry fish value chains in Bangladesh. Specifically, both sets of authors show the relevance of political economy when thinking about values and wellbeing. Lokuge and Munas through the idea of moral economy (see, e.g. Thompson 1991; Pinkerton 2015) and Belton et al. in their attention to power and inequality in small-scale fisheries. They make the crucial analytical point that it is insufficient to simply assume that the values that small-scale fisheries bring can be tallied up. The values that some people or groups derive from a fishery may come at the expense of other people's wellbeing. In Chap. 7, Jadhav makes a critically important argument (also made by Johnson et al. in Chap. 12) that brings together the themes of power and change, in relation to value. Jadhav argues that Indian fisheries policy has been hobbled with regard to small-scale fisheries by its fixation on economic value as the measure of fisheries and the assumption that small-scale fisheries in India are invariably poverty-ridden. This orientation has meant that the Indian state has been largely unable to recognize the enormous diversity that prevails in Indian small-scale fisheries, and the comparative policy-relevant insights that could thereby be gleaned from more subtle analytical attention to the sector.

In addition to the interactive governance, political economy, and feminist perspectives that are articulated with the book's guiding values and social wellbeing framework, the book's authors see the relevance of at least two other theoretical approaches: the Sustainable Livelihoods Approach (SLA) and legal pluralism. In their exploration of the significant use, exchange, and intrinsic values (my value categorizations) derived from fishing by the boat dwelling Bede people in Bangladesh, Islam and Chuenpagdee in Chap. 8 draw out the importance of recognizing how the SLA is an inspiration for, and a useful complement to, the social

wellbeing approach. The note, however, that social wellbeing adds analytical dimensions that the SLA lacks, even if, similar to Belton et al., they point out that both are not as attuned to relations of power as would be ideal. Idrobo in his analysis of the impact of the rise of a pound net fishing on Brazil's southeastern Atlantic coast in Chap. 4, and consequent increased integration into the larger commodity economy, extends this line of argument theoretically. He shows how the social wellbeing approach brings a missing and powerful relationality to the SLA, thereby addressing the latter's rather reified notion of capitals. In Bavinck's analysis in Chap. 8 of the varying, but often extremely important, social wellbeing contributions that fishing community-based governance institutions make in Tamil Nadu, he shows how legal pluralism reveals new areas of inquiry for social wellbeing. One of these is that fisher institutions reflect broader understandings of value and thereby often have retained enduring legitimacy. His arguments complement the subsequent theoretical observations of Jentoft and Chuenpagdee by demonstrating the interplay of the three different orders of governance in small-scale fishing villages along the Tamil Nadu coast.

The conceptual orientation of each chapter can also be contrasted by the degree to which they emphasize values and wellbeing. The chapters also vary in the degree to which they use value primarily in the sense of the societal contributions of small-scale fisheries or in a more relational sense. So, for example, while Acott and Urquhart and White's chapters are otherwise very complementary, the former emphasizes a relational conception of value while White devotes more attention to closely examining varying perceptions of the contributions of small-scale fisheries in her two coastal towns of study. Another contrast is between the chapters of Islam and Chuenpagdee and Lokuge and Munas. The former authors are centrally concerned with providing strong evidence for the vitality of Bede small-scale fishing as supporting a rich and meaningful livelihood. The latter, in contrast, provide an evocative illustration of how systems of religious belief shape values, action, and interaction, but make little if any explicit mention of how the small-scale fisheries they have studied are the basis for what are clearly distinct, vibrant, and intrinsically valuable cultural adaptations.

The second main area of focus of the chapters in this volume is methodological. Here I am referring not to the methods by which the data to support the chapters was gathered, though there are interesting contrasts there also, but to whether the chapters in question suggest methodological innovations that are particularly promising for advancing the values and social wellbeing approach that we are proposing. The most striking illustration of methodological innovation in these terms is in the chapter by Jadhav. He uses quantitative tools to, counter-intuitively, advance a highly critical and relational interpretation of India's "publicly available" premier government data set on fisheries. He, in effect, pulls out hidden transcripts from those data that undermine national state discourses on small-scale fisheries and reveal dramatically greater diversity, and wellbeing value, than assumed there. The chapters of Song and Stacey et al. also offer useful methodological innovations, both in an effort to map the wellbeing values of small-scale fisheries across scale. Stacey et al.'s approach is particular to their case, though suggestive of possibilities for

further exploration. Song, on the other hand, proposes a table for comparing the social wellbeing contributions of small-scale fisheries across scale that could readily be adopted for research on the contributions of fisheries in different contexts. He illustrates how his tool may also be able to capture some sense of relational trade-offs in value as well. The final significant methodological insight comes from Belton et al. through their integration of value chain analysis in their analysis of wellbeing in small-scale fisheries in Bangladesh. The foregrounding of all of the links of the value chain has the effect of forcing a relational perspective on the contributions that small-scale fisheries make. It shows how different groups in fisheries, such as men and women or members of different ethnic groups may benefit from, or be subject to, more advantaged or more vulnerable positions in the value chain.

This attention to methodological contributions allows a further point of comparison between the chapters in the book: the degree to which authors have taken qualitative, quantitative, or mixed approaches. Here the default among the chapters is clearly qualitative, as that is necessary for conveying the rich, nuanced, and context specific values of small-scale fisheries. Nonetheless, some authors have tried to balance qualitative and quantitative to address the politics of reaching different audiences, as noted above. It is also clear, again from Jadhav's innovative work, that careful quantitative analysis can also be an extremely powerful way to undermine simplistic (and pejorative) understandings of small-scale fisheries.

Given their theoretical focus, the chapters by Acott and Urquhart and Jentoft and Chuenpagdee use cases studies and examples for illustrative purposes. All the other chapters in the central part of the volume, however, make full use of rich substantive materials. With regard to applied focus, we have deliberately placed Jentoft and Chuenpagdee last in the book given how much weight it gives to application of the approach we have developed. Nonetheless, it should be recognized that several of the other chapters have important implications for practice. Stacey et al., Jadhav, and Bavinck all make explicit suggestions about how state authorities can improve their practices with regard to small-scale fisheries. All of the other authors mention governance implications at least in passing or, if they do not, such implications can be readily inferred from their analyses. Idrobo's chapter, for example, indirectly suggests specific governance interventions that could significantly improve the situation of the residents of Ponta Negra, such as improving their transportation infrastructure and ameliorating their educational possibilities.

## 1.6 Conclusion

The TBTI project is inspired by the vision of a world in which small-scale fisheries receive far greater recognition for the range of values that they represent, from employment generation, relatively ecologically sustainable fishing practices, to distinctive cultural patterns and engagements with the aquatic world. TBTI's task is complicated, however, by the ambiguities and politics of the term value that, for this project, turn at the most basic level on the distinction between contribution (assigned

value) and belief (held value). For that reason, in this book, we advocate thinking about value in the plural, as diverse values, and recognizing that values are not essential things, transparently obvious to all. We contend that a robust defense of small-scale fisheries has to recognize the limitations of efforts to pin down small-scale fisheries values, even if such representations of small-scale fisheries are sometimes politically necessary. We argue that efforts to convey the values of small-scale fisheries are best served by more relational and contingent approaches such as the social wellbeing approach we have chosen. In this chapter, I sketch out how a social wellbeing framework can inspire creative efforts to convey the diverse values of small-scale fisheries that sees values in more relational and emergent terms. I argue that social wellbeing provides a way to link quantitative and qualitative contributions of small-scale fisheries, while recognizing that claims about small-scale fisheries reflect particular moments, particular tactical necessities, and particular constellations of interest in their formation.

The contributions to this volume that together constitute its 12 core chapters illustrate the rich analytical and political possibilities of the social wellbeing inspired approach to values that we develop in this volume. They show the vibrant diversity that exists in small-scale fisheries globally, itself a key value of small-scale fisheries, while also pointing to the social, political, cultural, economic, and ecological, and governance challenges of transition that they are all facing.

## References

- Acheson JM (1981) Anthropology of fishing. *Annu Rev Anthropol* 10:275–316
- Acott TG, Urquhart J (2014) Sense of place and socio-cultural values in fishing communities along the English channel. In: Urquhart J, Acott TG, Symes D, Zhao M (eds) *Social issues in sustainable fisheries management*. Springer, Dordrecht, pp 257–278
- Acott TG, Urquhart J (2015) People, place and fish: exploring the cultural meanings of inshore fishing through photography. In: Warren S, Jones P (eds) *Creative economies, creative communities: rethinking place, policy and practice*. Ashgate, London, pp 43–63
- Agarwala M, Atkinson G, Fry B, Homewood K, Mourato S, Rowcliffe J et al (2014) Assessing the relationship between human well-being and ecosystem services: a review of frameworks. *Conserv Soc* 12(4):437–449
- Allison EH, Ellis F (2001) The livelihoods approach and management of small-scale fisheries. *Mar Policy* 25:377–388
- Armitage D, Béné C, Charles A, Johnson D, Allison E (2012) The interplay of wellbeing and resilience concepts: towards a transdisciplinary social-ecological perspective. *Ecol Soc* 17(4):15
- Bavinck M, Johnson D, Amarasingh O, Rubinoff J, Southwold-Llewellyn S, Thomson KT (2013) From indifference to mutual support – a comparative analysis of legal pluralism in the governing of South Asian fisheries. *Eur J Dev Res* 25:621–640
- Béné C (2003) When fishery rhymes with poverty: a first step beyond the old paradigm on poverty in small-scale fisheries. *World Dev* 31(6):949–975
- Béné C, Hersoug B, Allison EH (2010) Not by rent alone: analysing the pro-poor functions of small-scale fisheries in developing countries. *Dev Policy Rev* 28(3):325–358
- Béné C, Devereux S, Roelen K (2015) Social protection and sustainable natural resource management: initial findings and good practices from small-scale fisheries, *Fisheries and Aquaculture Circular*. FAO, Rome, p 61



- Bennett E (2005) Gender, fisheries and development. *Mar Policy* 29(5):451–459
- Berkes F, Mahon R, McConney P, Pollnac R, Pomeroy R (eds) (2001) *Managing small-scale fisheries: alternative directions and methods*. International Development Research Centre, Ottawa
- Breslow SJ, Sojka B, Barnea R, Basurto X, Carothers C, Charnley S et al (2016) Conceptualizing and operationalizing human wellbeing for ecosystem assessment and management. *Environ Sci Pol* 66:250–259
- Butler CF (2008) Paper fish: the transformation of the salmon fisheries of British Columbia. In: Lowe ME, Carothers C (eds) *American Fisheries Society symposium 68*. American Fisheries Society, Bethesda, pp 75–98
- Carothers C (2010) Tragedy of commodification: displacements in Alutiiq Fishing Communities in the Gulf of Alaska. *Maritime Stud (MAST)* 9(2):95–120
- Chan KMA, Satterfield T, Goldstein J (2012) Rethinking ecosystem services to better address and navigate cultural values. *Ecol Econ* 74:8–18
- Chuenpagdee R (ed) (2011) *World small-scale fisheries. Contemporary visions*. Eburon Academic Publishers, Delft
- Conner N, Mead A, Olsen N (2016) Values and human interrelationships with nature. In: Davidson-Hunt IJ, Suich H, Meijer SS, Olsen N (eds) *People in Nature Valuing the diversity of interrelationships between people and nature*. International Union for the Conservation of Nature, Gland
- Coulthard S, Johnson DS, McGregor JA (2011) Poverty, sustainability and human wellbeing: a social wellbeing approach to the global fisheries crisis. *Glob Environ Chang* 21:453–463
- Deneulin S, McGregor JA (2010) The capability approach and the politics of a social conception of wellbeing. *Eur J Soc Theory* 13(4):501–519
- FAO (2005) *Increasing the contribution of small-scale fisheries to poverty alleviation and food security, FAO Technical Guidelines for Responsible Fisheries*. Food and Agriculture Organization of the United Nations, Rome
- FAO (2015) *Voluntary guidelines for securing sustainable small-scale fisheries in the context of food security and poverty eradication*. Rome, Food and Agriculture Organization of the United Nations, p 18
- Fischer EF (2014) *The good life: aspiration, dignity, and the anthropology of wellbeing*. Stanford University Press, Stanford
- Frangoudes K (2011) Women's contribution in small-scale fisheries in the European Union. In: Chuenpagdee R (ed) *World small-scale fisheries. Contemporary visions*. Eburon, Delft, pp 101–116
- Ginkel R v (2009) *Braving troubled waters: sea change in a Dutch Fishing Community*, MARE Publication Series. University of Amsterdam Press, Amsterdam
- Gough IR, McGregor JA (2007) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge
- Graeber D (2001) *Towards an anthropological theory of value: the false coin of our own dreams*. Palgrave, New York
- Granovetter M (1985) Economic action and social structure: the problem of embeddedness. *Am J Sociol* 91(3):481–510
- Harper S, Zeller D, Hauzer M, Pauly D, Sumaila UR (2013) Women and fisheries: contribution to food security and local economies. *Mar Policy* 39:56–63
- Hicks CC, Levine A, Agrawal A, Basurto X, Breslow SJ, Carothers C et al (2016) Engage key social concepts for sustainability. *Science* 352(6281):38–40
- Jentoft S (2000) The community: a missing link in fisheries management. *Mar Policy* 24(1):53–59
- Jentoft S, Eide A (eds) (2011) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer, Dordrecht
- Jentoft S, Chuenpagdee R, Bundy A, Mahon R (2010) Pyramids and roses: alternative images for the governance of fisheries systems. *Mar Policy* 34(6):1315–1321
- Johnsen JP (2014) Is fisheries governance possible? *Fish Fish* 15(3):428–444

- Johnson D (2006) Category, narrative, and value in the governance of small-scale fisheries. *Mar Policy* 30:747–756
- Joseph M (2002) *Against the romance of community*. University of Minnesota Press, Minneapolis
- Kleiber D, Harris LM, Vincent AC (2015) Gender and small-scale fisheries: a case for counting women and beyond. *Fish Fish* 16(4):547–562
- MacDonald M, Connelly P (1990) Class and gender in Nova Scotia Fishing Communities. In: Fairley B, Leys C, Sacouman J (eds) *Restructuring and resistance*. Garamond, Toronto, pp 151–170
- McFadyen G, Salz P, Cappel R (2011) Characteristics of coastal small-scale fisheries in Europe. European Parliament, Directorate-General for Internal Policies, pp. 156
- McGoodwin JR (1990) *Crisis in the world's fisheries: people, problems, and policies*. Stanford University Press, Stanford
- McGregor JA (2008) Wellbeing, poverty and conflict. Wellbeing in Developing Countries Research Group Briefing Paper 01/08
- Millennium Ecosystem Assessment (2005) *Ecosystems and human well-being: synthesis*. Island Press, Washington, DC
- Novek J (2003) Intensive livestock operations, disembedding, and community polarization in Manitoba. *Soc Nat Resour* 16(7):567–581
- OECD (2011) *How's life?* OECD Publishing
- Onyango P, Jentoft S (2010) Assessing poverty in small-scale fisheries in Lake Victoria, Tanzania. *Fish Fish* 11(3):250–263
- Pauly D (1997) Small-scale fisheries in the tropics: marginality, marginalization and some implications for fisheries management. In: Pikitch EK, Huppert DD, Sissenwine MP (eds) *Global trends: fisheries management*. American Fisheries Society Symposium 20, Bethesda, pp 40–49
- Pauly D (2006) Major trends in small-scale marine fisheries, with emphasis on developing countries, and some implications for the social sciences. *Martime Stud* 4(2):7–22
- Pauly D, Zeller D (2016) Toward a comprehensive estimate of global marine fisheries catches. In: Pauly D, Zeller D (eds) *Global atlas of marine fisheries: a critical appraisal of catches and ecosystem impacts*. Island Press, Washington, DC, pp 171–181
- Pinkerton E (2015) The role of moral economy in two British Columbia fisheries: confronting neoliberal policies. *Mar Policy* 61:410–419
- Pinkerton E, Davis R (2015) Neoliberalism and the politics of enclosure in North American small-scale fisheries. *Mar Policy* 61:303–312
- Polanyi K (2001[1944]) *The great transformation: the political and economic origins of our time*. Beacon Press, Boston
- Pollnac RB, Poggie JJ (2006) Job satisfaction in the fishery in two Southeast Alaskan Towns. *Hum Organ* 65(3):329–339
- Pollnac RB, Pomeroy RS, Harkes IHT (2001) Fishery policy and job satisfaction in three southeast Asian fisheries. *Ocean Coast Manag* 44(7–8):531–544
- Rockström J, Steffen W, Noone K, Persson A, Chapin FS, Lambin EF et al (2009) A safe operating space for humanity. *Nature* 461(7263):472–475
- Roelvink G, St. Martin K, Gibson-Graham JK (eds) (2015) *Making other worlds possible: performing diverse economies*. University of Minnesota Press, Minneapolis
- Ryan RM, Deci EL (2001) On happiness and human potentials: a review of research on hedonic and eudaimonic well-being. *Annu Rev Psychol* 52(1):141–166
- Scoones I (1999) *Sustainable rural livelihoods: a framework for analysis*, IDS Working Paper 72. Institute for Development Studies, Brighton, p 22
- Sen AK (1999) *Development as freedom*. Oxford University Press, Oxford
- Seymour E, Curtis A, Pannell D, Allan C, Roberts A (2010) Understanding the role of assigned values in natural resource management. *Aust J Environ Manag* 17(3)
- Sider G (2003) *Between history and tomorrow: making and breaking everyday life in rural Newfoundland*. Broadview Press, Peterborough

- Sinclair PR (1985) From traps to draggers: domestic commodity production in Northwest Newfoundland, 1850–1982, *Social and Economic Studies*, vol 31. Institute for Social and Economic Research, St. John's
- St. Martin K (2007) The difference that class makes: neoliberalization and non-capitalism in the fishing industry of New England. *Antipode* 39(3):527–549
- Subramanian A (2009) *Shorelines: space and rights in South India*. Stanford University Press, Stanford
- Thompson EP (1991) The moral economy of the English crowd in the eighteenth century. In: Thompson EP (ed) *Customs in common*. The New Press, New York, pp 185–258
- Thomson D (1980) Conflict within the fishing industry. *ICLARM News* 3(3):3–4
- Thomson PR, Wailey T, Lummis T (1983) *Living the fishing*. Routledge/Kegan Paul, London/Boston
- Trimble M, Johnson D (2013) Artisanal fishing as an undesirable way of life? The implications for governance of fishers' wellbeing aspirations in coastal Uruguay and southeastern Brazil. *Mar Policy* 37:37–44
- Urquhart J, Acott T (2014) A sense of place in cultural ecosystem services: the case of Cornish Fishing Communities. *Soc Nat Resour* 27(1):3–19
- Weeratunge N, Snyder KA, Sze CP (2010) Gleaner, fisher, trader, processor: understanding gendered employment in fisheries and aquaculture. *Fish Fish* 11(4):405–420
- Weeratunge N, Béné C, Siriwardane R, Charles A, Johnson D, Allison EH et al (2014) Small-scale fisheries through the wellbeing lens. *Fish Fish* 15:255–279
- White S, Ellison M (2007) Wellbeing, livelihoods and resources in social practice. In: Gough I, McGregor JA (eds) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge, pp 157–175
- Williams MJ (2008) Why look at fisheries through a gender lens? *Development* 51(2):180–185
- World Bank (2009) *The Sunken billions: the economic justification for fisheries reform*. World Bank, Washington, DC, p 104

**Derek S. Johnson** is an Associate Professor of Socio-cultural Anthropology at the University of Manitoba and a Research Associate at the Centre for Maritime Research at the University of Amsterdam. Derek's research integrates political ecology and social wellbeing approaches in the analysis of small-scale fisheries governance and cultural economies of food. Since the mid-1990s, his primary geographical area of interest has been South Asia, and particularly the Indian state of Gujarat. Derek led the Diverse Values research cluster and a working group on the social and cultural dimensions of small-scale fisheries within the Canadian Social Sciences and Humanities Research Council project *Too Big to Ignore: Global Partnership for Small-scale Fisheries Research*. This volume is an output of those groups.

# Chapter 2

## Co-constructing Cultural Ecosystem Services and Wellbeing Through a Place-Based Approach

Tim G. Acott and Julie Urquhart

**Abstract** Reductive practices in fisheries management have tended to focus on ecological and economic dimensions that have rendered the social and cultural importance of fishing largely invisible, at least in the context of governance and policy making. This chapter builds on 5 years' research in the English Channel and Southern North Sea in which the authors adopted a sense of place perspective as a framework for understanding the social and cultural value of small-scale fisheries. Through a number of case studies, the chapter describes how small-scale fisheries result in a series of 'transformations' as the marine environment is translated into cultural ecosystem services in coastal settings giving rise to socio-cultural value. This perspective is further developed by considering the value of the social wellbeing 'lens' to broaden the sense of place / cultural ecosystem services framework. In pursuing 'values' through sense of place, cultural ecosystem services and social wellbeing we discuss how the dualistic treatment of nature and society is problematic. We conclude that a relational co-constructionist approach, although challenging, offers a way of making visible an array of social and cultural values that emerge from the activity of small-scale fisheries.

**Keywords** Cultural ecosystem services • Wellbeing • Co-construction • Sense of place • Small-scale fisheries

---

T.G. Acott (✉)  
Department of History, Politics and Social Sciences, University of Greenwich,  
Old Royal Naval College, Park Row, London SE10 9LS, UK  
e-mail: [t.g.acott@gre.ac.uk](mailto:t.g.acott@gre.ac.uk)

J. Urquhart  
Centre for Environmental Policy, Imperial College London,  
14 Prince's Gardens, South Kensington Campus, London SW7 1NA, UK  
e-mail: [j.urquhart@imperial.ac.uk](mailto:j.urquhart@imperial.ac.uk)

## 2.1 Introduction

Existing global fisheries policy and management has largely focused on the biological and economic dimensions of fisheries management in an effort to stabilize fish stocks and protect declining marine ecosystems (Urquhart et al. 2014b). As a result, fisheries governance mechanisms have often resulted in coastal communities being largely invisible, or at best an afterthought, in policy development (St Martin and Hall-Arber 2009). However, there are increasing calls to address this policy gap in order to ensure that the impacts of policy on communities are accounted for in the decision-making process (Symes and Phillipson 2014b; Urquhart et al. 2011). This issue is certainly relevant in Europe, with the reformed Common Fisheries Policy in 2014 recognizing the importance of including explicit social objectives and using “transparent and objective criteria including those of an environmental, social and economic nature” (Article 17, Regulation 1380/2013 of the EU Common Fisheries Policy). However, identifying and implementing these ‘social’ criteria will arguably involve the development of new approaches that make visible the overlooked social dimensions of fisheries.

In this regard, the concept of ‘wellbeing’ has gained traction over recent years as an overarching concept and approach that could contribute to the design of integrated governance arrangements for fisheries which explicitly include the social dimension (Coulthard et al. 2011; Coulthard 2012). While the development of wellbeing approaches to fisheries management are of relatively recent origin (notwithstanding the long tradition in sustainable livelihoods research in small-scale fisheries (SSF) that is consistent with elements of a wellbeing approach), wellbeing is put forward as an integrating ‘lens’ that can help recognize the importance of small-scale fisheries (SSF) to economies, societies and cultures (Trimble and Johnson 2013; Britton and Coulthard 2013; Coulthard et al. 2011; Weeratunge et al. 2014). In response to this, scholars have applied what they call a ‘social wellbeing’ approach, drawing on the three-dimensional conceptual framework developed by the ESRC Research Group ‘Wellbeing in Developing Countries (WeD)’ at the University of Bath, which integrates subjective, material and relational dimensions in an effort to combine objective and subjective conceptions of wellbeing (White 2010; Coulthard et al. 2011; Weeratunge et al. 2014).

In this chapter we recognize the value of the social wellbeing approach in addressing the paucity of attention on ‘social’ issues, but argue that wellbeing is inherently linked to the ‘ecosystem services’, including ‘cultural ecosystem services’, that people receive from their environment. We suggest that the concept of ‘sense of place’ may help to better understand how people experience wellbeing in the situated contexts of the environments (and cultures) in which they live. In aligning sense of place, (cultural) ecosystem services and social wellbeing the intimate connections between ecology and society can help to reveal the multiple values of SSF. Clearly attempting to integrate the concepts of social wellbeing, sense of place and cultural ecosystem services is an ambitious aim, not least in navigating the ontological and semantic differences between the academic disciplines in which the

concepts have evolved. Here the importance of thinking about socio-nature networks becomes evident and invites consideration of a co-constructionist perspective to understand relations between society and nature. It offers a heuristic device to help make visible relational associations between a wide diversity of human and non-human elements that might potentially have a bearing on social, economic and environmental sustainability.

The aim of this chapter is to bring together the authors' work on cultural ecosystem services and sense of place in the context of SSF (Urquhart and Acott 2014; Acott and Urquhart 2014) with the social wellbeing perspective (Weeratunge et al. 2014; Coulthard 2012; Coulthard et al. 2011). Drawing on empirical research conducted as part of two European projects (Urquhart et al. 2014b; Acott and Urquhart 2012) that sought to understand the social and cultural values of inshore fishing in coastal towns along the English Channel and Southern North Sea, we advance a perspective to help understand the numerous social and cultural values that emerge when the activity of SSF connects marine and terrestrial environments. In order to achieve this, we first provide an overview of ecosystem services and the problematic nature of cultural ecosystem services. This is followed by a description of sense of place to understand cultural ecosystem services in the context of SSF, drawing on examples from the two European projects. The social wellbeing perspective is then described and the chapter concludes by making the argument for a co-constructed perspective as a suitable approach to frame the complex entanglements between marine and terrestrial environments.

## 2.2 Ecosystem Services

An Ecosystem-based Approach (EA) to the management of natural resources is becoming an increasingly popular management framework as policy makers grapple with human impact across complex ecological systems (Carpenter et al. 2009). It takes an integrated approach to natural resource management considering the relationship between natural and social systems. In other words, it is a way of trying to bridge the gap between ecology and economics (Chan et al. 2012a, b) and to attempt to relate the wellbeing of society to the environment (Mace et al. 2011). Its roots are in early work by de Groot (1987), who argued that environmental functions (natural goods and services) are as important as man-made goods and services to human welfare. Alongside an ecosystem-based approach, the concept of ecosystem services explicitly considers understanding and valuing the benefits that humans receive from ecosystems that contribute to well-being (CBD 2004) in order to improve the assessment of those services and inform decision-making (Haines-Young and Potschin 2010). The 2005 Millennium Ecosystem Assessment (MEA) identifies provisioning services (such as food, water, timber); regulating services (such as climate control, waste, water quality); supporting services (such as soil formation, photosynthesis, nutrient cycling); and cultural services (such as recreational, spiritual and aesthetic benefits) (MEA 2005).

Despite the creation of an overarching framework to understand ecosystem assessment, the MEA caused Norgaard (2008) to reflect that it also demonstrated the problems of trying to combine fragmented disciplinary knowledge to understand complex systems. This can be illustrated by considering how to value the four categories of ecosystem services defined by the MEA. In terms of wellbeing, the first three services (provisioning, regulating, supporting) relate to our physical needs, such as food, shelter and energy. Assessing and measuring these services has typically been dominated by economic valuation techniques that attempt to put an economic value on the goods and services that ecosystems provide society. These approaches generally adopt conventional techniques from environmental economics, such as revealed or stated preference and cost-based methods (De Young et al. 2008). The rationale is that policymakers and natural resource managers must often make difficult decisions involving trade-offs when allocating resources, and market failures occur when markets do not fully reflect the social costs or benefits of an environmental good. However, the MEA recognized that, alongside providing for our physical needs, the natural environment provides us with diverse non-material wellbeing benefits such as cultural diversity, spiritual and religious values, knowledge systems, educational values, inspiration, aesthetic values, social relations, identity, cultural heritage and recreation which they term 'cultural ecosystem services' (MEA 2005). Thus, cultural ecosystem services reflect the intimate interrelationships that people and societies have with the world around them and assessing the value of these services in a policy-relevant framework is problematic as they often defy extant scientific methods and arithmetic outcomes. Currently there is no agreed robust framework for valuing the cultural services that people receive from ecosystems (Chan et al. 2012a). However, there is recognition of, as the final report of the Sarkozy Commission (Stiglitz et al. 2009) suggests, a need "to shift the emphasis from measuring economic production to measuring people's wellbeing" (in McGregor and Sumner 2010, p. 104).

This concern about an overemphasis on economics for ecosystem service valuation is especially prevalent in the literature about cultural ecosystem services (Church et al. 2011; Chan et al. 2012b). Difficulties with identifying ways to understand the cultural values of ecosystem services have been recognized (Chan et al. 2012b; Plieninger et al. 2013; Satz et al. 2013) and conceptualizing the relationships between nature and culture is seen as particularly problematic (Pröpfer and Haupts 2014; Fischer and Eastwood 2016; Rieprich and Schnegg 2015; Leyshon 2014). In order to address this, in our own work we have applied an integrative approach to identify the cultural values of ecosystems using methodological and conceptual sense of place approaches in the context of SSF, summarized in the following section (Urquhart and Acott 2014; Acott and Urquhart 2014).

### 2.3 Sense of Place, Cultural Ecosystem Services and SSF

In the MEA, sense of place is identified as a discrete type of cultural ecosystem service, however, through case study work in fishing towns along the English Channel, we set out to explore its effectiveness as an underpinning concept for conceptualizing cultural ecosystem services more broadly. We started from the premise that it is important to consider the social and cultural meanings that people (individuals, groups and society) attribute to places or environments, alongside understanding how the physical environment (and ecosystems) shapes and influences those meanings. In essence, sense of place is about understanding the complex relationships that people form with the places around them. It is about how places make people feel, the meanings they associate with places and how those places influence behaviour. As an interdisciplinary concept rooted in a range of academic disciplines such as humanistic geography, sociology, environmental psychology and architecture, sense of place often takes a phenomenological approach focusing on everyday lived experiences of individuals (Seamon 2000) and explores the meanings and perceptions that individuals associate with a place or particular setting (Tuan 1974). It is often conceptualized as involving the three concepts of place attachment, place identity and place dependence, which can be applied to individuals (e.g. personal identity) or groups (e.g. community identity).

There is an extensive literature on how places are socially constructed, the role of place in identity and how people become attached to place (Altman and Low 1992; Relph 1976; Creswell 2004; Tuan 1977; Proshansky et al. 1983; Holloway and Hubbard 2001; Massey and Jess 1995). Clearly how people, both as individuals and as collective groups, relate to and associate with a place will differ and will be based upon memory, experiences, beliefs and perceptions associated with particular places (Manzo 2005). Cultural and social factors will influence how an individual feels about a place or particular activity within that place. As feelings and meanings attributed to a place change over time, sense of place will also evolve in response to, for instance, changing political, economic and environmental circumstances. Sense of place is a dynamic process in a constant state of becoming, formed as a result of relations between individuals, society and their environments.

Jorgensen and Stedman (2006) propose a multidimensional concept of sense of place comprising cognitive, affective and conative dimensions to human-environment relationships. By considering the model of Jorgensen and Stedman (2001) places can be seen as a particular assemblage of landscapes, biota and geophysical attributes that mediate or give rise to the meanings that people associate with them. So, alongside the perceptual meanings that people associate with places, the place itself can also influence and shape those perceptions. Therefore, sense of place cannot be considered as a purely social construct, but is co-produced and as Stedman (2003b) argues, “the local environment sets bounds and gives form to these constructions” (p. 671).

Thus, with its recognition that human relationships with ecosystems are reciprocal and co-constructed through both the socially constructed meanings and values



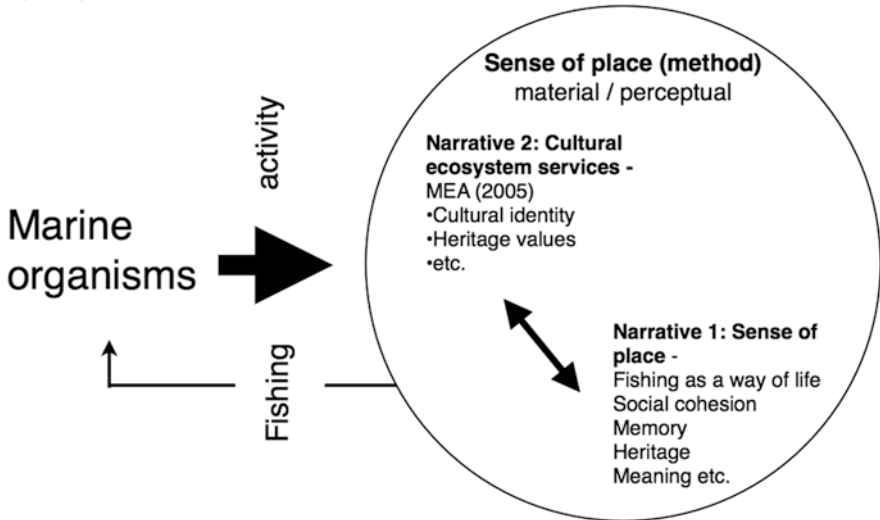
that people attribute to ecosystems (and the services they provide) and mediated by the particular attributes of different environmental settings, sense of place potentially provides a means for understanding cultural ecosystem services and wellbeing. It further allows an assessment to be made of the role of the physical environment (or ecosystem) in shaping those attachments either directly, or mediated through particular activities (such as marine fishing).

In order to demonstrate the utility of thinking about SSF in the context of sense of place and cultural ecosystem services (Urquhart and Acott 2014; Acott and Urquhart 2014) we draw on work undertaken as part of two INTERREG IVA co-funded projects: CHARM III (Channel Integrated Approach for Marine Resource Management) and GIFS (Geography of Inshore Fishing and Sustainability). In both projects case examples of marine fishing along the English Channel and Southern North Sea were used to explore how sense of place reveals some of the tapestry of social and cultural dimensions that emerge as a result of fishing activity. Although it is not our intention here to present a detailed account of the methodological approach or comprehensive results from these two projects, our discussion draws on the findings from 112 semi-structured interviews with stakeholders in fishing towns in southern England and northern France (CHARM III) and 1702 questionnaire surveys in fishing communities in England, France, the Netherlands and Belgium (GIFS). In both instances the aim was to explore the contribution of fishing in defining a sense of place. A further goal was to map the findings onto a cultural ecosystem services framework in order to assess the utility of such an approach for understanding the cultural ecosystem services arising from the act of inshore fishing. The framework was built around sense of place and cultural ecosystem services to help express the relationship between marine and terrestrial environments. This relationship is illustrated in Fig. 2.1 and indicates how marine organisms get drawn into a range of terrestrial impacts but also recognizes human impact on the ocean as a feedback loop.

Fisheries in the study area are an interesting example as unlike, say, agriculture or forestry, there is little direct embodied encounter with the undersea world. Interactions start with fishers engaging in the act of fishing. Through going out to sea, catching fish, landing the fish, and subsequent distribution, selling, preparing and eating, a myriad of ecosystem services (including cultural ecosystem services) are realized. The process of catching fish for food sets in motion multiple transformations as fish (nature) are incorporated into society resulting in a range of ecosystem benefits or disbenefits. The sense of place approach allowed us to explore how marine ecosystems provide both material and non-material benefits to coastal communities through the activity of marine fishing in a way that is difficult using economic and biological perspectives alone.

The qualitative approach adopted in the CHARM III project gave a perspective on the experiences of those living and working in fishing communities. We found that for many involved in fishing, fishing is a 'way of life' providing an iconic marker of individual, community identity and social cohesion. But, in line with a co-constructionist approach, this sense of place was also shaped by the materiality of fishing places and fishing activity. Fishing contributes to a particular place

## Nature



**Fig. 2.1** Sense of Place, fisheries and cultural ecosystem services (Acott and Urquhart 2014, p. 264)

character through its material presence (both contemporary and historic) in the form of objects such as boats, fishing gear, buildings, street decoration etc. In this sense, fishing places can be understood as the locus for the formation of group identity and shared cultural meaning (Urquhart and Acott 2014). The material environment of fishing places / fisheries ecosystems and the subjective meanings and perceptions of people are mediated through fishing activity.

Table 2.1 provides an overview of how sense of place helped reveal a range of cultural ecosystem services emerging from SSF activity. Bearing this overview in mind, the following paragraphs draw out specific examples of how culture is intimately bound up with nature through the practice of marine fishing. The examples also illustrate how cultural transformations associated with SSF do not stop with the production of food. While the activity of marine fishing is driven by food production and the ability to generate an income, the cultural implications of the activity extend deeply into immaterial expressions of identity, heritage and social organisation as well as helping to shape the material environment. One fisherman from Mevagsissey explained about his genealogical attachments to fishing:

I've been fishing ever since I was 15 years old, I've never had a job interview. My dad was a fisherman, his dad was a fisherman and I think his dad was a fisherman (Greg<sup>1</sup>, fisherman, Mevagsissey)

Thus, the act of engaging with the undersea marine world through fishing is something that is deeply rooted through generations of his family. For another fisherman from Hastings fishing was described as 'in your blood':

<sup>1</sup>Names have been anonymized throughout.

**Table 2.1** The cultural ecosystem services of small-scale fisheries (Urquhart et al. 2014a)

---

*Cultural identity:* Fishing shapes the identity of those who live in coastal places and increases over time. It is both perceptual and linked to the attachments that people form with place, but is also influenced by place character in terms of the physical environment and man-made objects (e.g. buildings, fishing gear and boats, artworks, signs etc.) and the fishing activity associated with it.

*Place character and aesthetic values:* Fishing places have a particular aesthetic that is shaped by the physical environment and landscape alongside the material culture associated with fishing.

*Individual and group attachment to place:* Fishing facilitates and strengthens attachment to place through genealogical ties, longstanding association with the place and the co-existence of a place of work and residence, along with the fishing underpinning the social fabric.

*Place meaning:* The meanings attached to places may differ for those associated with fishing and those not, with fishers relating to the place as a working environment and, often, based on genealogical place attachment. For those not associated with fishing those meanings may focus on the aesthetics of the place, based on both the physical landscape and a (sometimes romanticized) perception of the fishing industry.

*Cultural heritage and memory:* As an activity that has often taken place for generations fishing is deep-rooted in many coastal towns and villages. It is represented through the built cultural heritage in the form of the remains of old buildings or equipment, some of which are reused for other purposes. Fishing heritage is also about the non-tangible memories of those who have lived there and these are passed on through oral histories, preserved traditions and representations in museums.

*Inspiration:* The activity of fishing and the particular nature of coastal environments provides inspiration and wellbeing benefits for those living there, enhancing quality of life. This is also reflected in the work of artists who try to capture the particular quality of these environments.

*Connection to the natural world:* For fishers this may occur through daily engagement with the marine environment, sometimes in very harsh conditions. For others, living by the coast may provide a certain perspective and sometimes religious and spiritual meanings for those communities.

*Tourism:* The presence of fishing, or the idea of 'fishing culture', provides an attraction for tourism. Visitors like to watch the boats in the harbour, the fishermen unloading the daily catch and they enjoy eating locally-caught fish in a harbourside restaurant.

*Knowledge:* Fishers may have a particular knowledge about the marine environment in which they work, along with the skills and traditions associated with that activity. Educating and passing on that knowledge is an important part of maintaining cultural identity.

---

You know this has got such a pull, I mean when I was 6 or 7 years old I was down here helping pull the boats, you know we'd pull the blocks of wood up, and I couldn't wait to see what my dad had caught you know couldn't wait to, he'd give you 10 fish, one on each finger through the gills, to bring up to the top there to sell to the people what were, used to get your 2 bob<sup>2</sup> pocket money that way. Go home stinking, mum would chuck you in the bath and chuck your clothes into the sink to wash but it was from as young as you understood you was kind of part of it, it was part of you. And it's never, it never goes away you know... that's why we do it, it's in your blood (Jim, Fisherman, Hastings)

The fishermen in our study spoke about fishing as something that was deeply ingrained in their sense of identity. The process of engaging with the undersea world

---

<sup>2</sup>“Bob” is a slang term for a shilling, a former unit of currency in the UK, the equivalent of 5 pence in today's money.

has helped shape who they are. However, the cultural value of fishing is not just limited to those that are directly engaged with the activity but is also bound up with broader community identity, as the following response from a local authority representative in Hastings illustrates;

Last week [Jessica] and I were taking some infants on a walk across the beach and they got to see a boat coming in and landing and they got to see the fishermen sorting their cuttle nets on the beach ... it's like a living open-air museum really, because you don't know what you'll find, they might be sorting out nets, or mending their nets, or repairing, or a boat builder repairing a boat as well, so it's very exciting for children, especially when you go around and that's, you know, that's real fishermen really doing it, he's not pretending to do that for you especially (Gemma, local authority representative, Hastings)

Non-material cultural value is felt in many other ways, for instance through social cohesion, as Aaron, a tourism provider from Whitstable, illustrates:

It's certainly the glue of a place you know ... and that [fishing] is the sort of thing that you need to keep going in a town otherwise it becomes a bit soulless I think.

Alongside this, an important aspect of fishing was the daily engagement with the natural environment:

There is the love of the sea and of the environment itself which is important which pushes to accept the difficulties of the profession which is actually quite, it is hard work being a fisherman ... Well the freedom, the pleasure of fishing, of trying to understand nature (Théodore, fishermen's organization, Boulogne)

Many of our interviewees spoke about the way that fishing gave them a connection with nature. It is important to remember that our study was focused mainly on small-scale fishing where the size of the boats and the methods of fishing are quite different to the large industrial fleets. Throughout our study sample the value of being out at sea was an integral element of the experience.

However, the cultural value of fishing is not just restricted to an immaterial dimension. Fishing also exerts a strong influence on the character of places through the material environment and we documented many examples throughout the study area (Acott and Urquhart 2012). These included the importance of the fishing boats in influencing place character through to the fishing gear that is often present around the harbour. These cultural objects are present in coastal towns because of the fishing activity, they are an important marker showing fishing is still an active process and is not just a heritage attraction:

You can see the boats, you can walk amongst the boats, you can see the fishermen working, it's real life, it's not just some stuffed museum... it's still real, it's not just a pastiche (John, borough council representative, Hastings)

In addition to the boats and the gear, fishing activity also finds cultural expression in the influence on building use and architecture, place decorations (where fishing imagery and objects are used to create a particular place character), the production of souvenirs, placement of information boards and expression in local culture and art (for instance paintings, music, pottery, metal work).

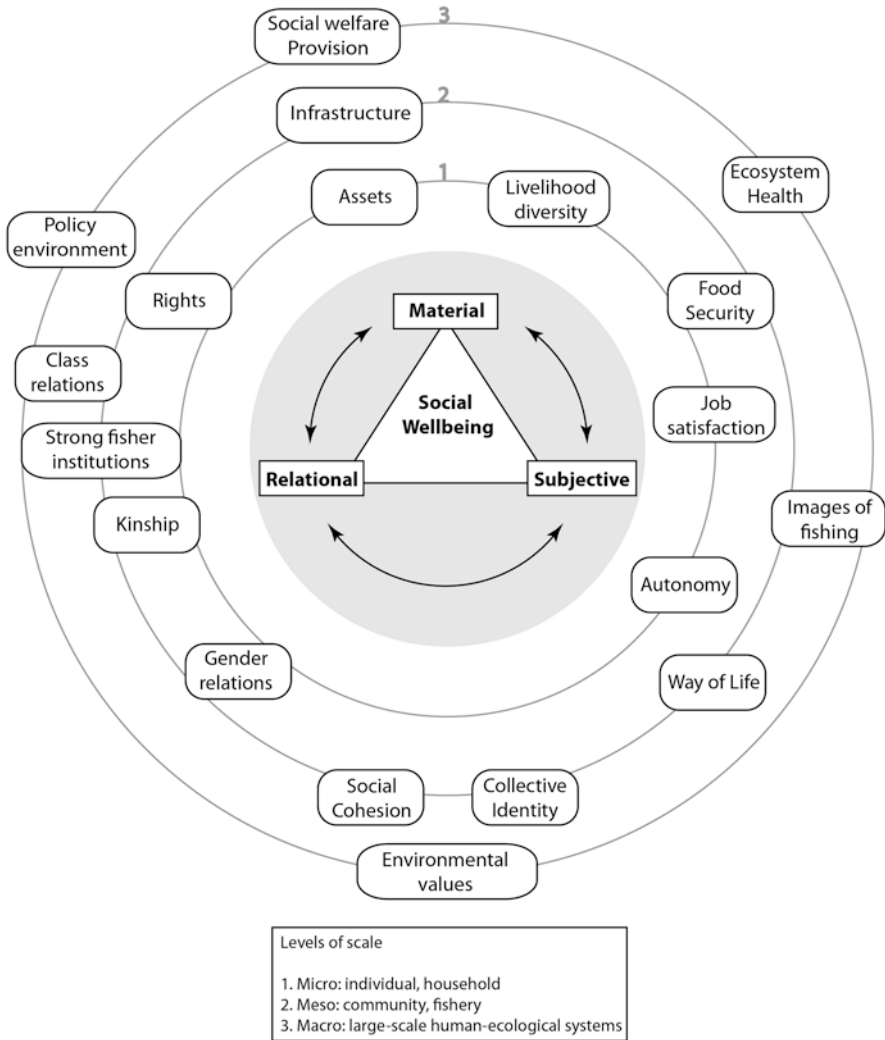
The preceding examples illustrate the deep cultural associations that can be formed as a result of marine fishing. A key actor in this process is the marine environment, providing the source of fish caught by fishermen. In ecosystem services terms there would be little disagreement that the marine environment is providing a 'provisioning service' resulting in nutritional benefits, amongst other things. However, we propose that in providing fish as a source of food, fishing is itself a deeply cultural activity. The process of fishing is entangling the activities of fishers with the marine environment and resulting in many diverse socio-cultural, economic and environmental values. The process of fishing is inherently fluid, changing through time and is caught up with myriad political, economic and institutional forces. In the same way the marine environment is part of a web of transformations resulting in food on our plates, but it is also part of a web spanning and connecting individual and community identity, social cohesion, architecture, material objects, music, and art, to name a few.

What emerges from this analysis is the recognition that marine fishing is not just an economic activity, but it also needs to be understood as a cultural process that drives a series of socio-cultural/ecological transformations (see Table 2.1) that in turn can influence wellbeing. It is here, then, that our attention must turn to the relationship between cultural ecosystem services, sense of place and wellbeing. The following section, therefore, outlines the social wellbeing framework that has been applied to SSF before moving on to a discussion about bringing together wellbeing, cultural ecosystem services and sense of place in a co-constructed framework.

## 2.4 A Framework for Social Wellbeing

As outlined above, the idea of wellbeing is becoming popular although its usage often remains vague and imprecise. There is pressure on governments to make wellbeing the focus of policy interventions rather than an emphasis on the more narrowly defined 'material prosperity' (Atkinson et al. 2012a). For the purposes of this chapter we focus on the contribution of the three dimensional 'Wellbeing in Developing Countries' (WeD) approach (McGregor 2006) as applied by Britton and Coulthard (2013), Weeratunge et al. (2014), Charles et al. (2012), Coulthard (2012) and Coulthard et al. (2011).

Coulthard et al. (2011) define wellbeing as "a state of being with others, which arises where human needs are met, where one can act meaningfully to pursue one's goals, and where one can enjoy a satisfactory quality of life (McGregor 2008)" (p. 454). This definition is formed around the way meanings are translated into an experience of wellbeing. Such insights are valuable in advancing ideas about how wellbeing and geographical contexts can give rise to different experiences and practice. The three dimensional aspect of wellbeing is discussed by McGregor and Sumner (2010) who define 'material', 'relational' and 'subjective' dimensions. The material dimension refers to 'what a person has', the relational to 'what they can do with what they have' and the subjective to 'how they think about what they have and



**Fig. 2.2** Facets of social wellbeing in SSF (Weeratunge et al. 2014, p. 267)

can do’ (McGregor 2006). The different elements of a social wellbeing approach in SSF are illustrated in Fig. 2.2.

These schemes of wellbeing add insight into the multiple dimensions that constitute human welfare. Weeratunge et al. (2014) argue for the utility of the three-dimensional wellbeing framework as an analytical lens for understanding SSF. Their perspective draws attention to the multiple ways that SSF is bound up with the wellbeing of people and begins to address the limitations of an economic analysis alone. Additionally this perspective has been developed in reaction to the perceived dominance of the economic and biological focus of fisheries management. It is

argued that wellbeing is used to add a social perspective in analytical frameworks (Charles et al. 2012). However, in making this move it is important not to lose sight of the physical and ecological dimensions as well, alongside the complex interactions that tie them together. Here, then, the utility of a co-constructionist perspective becomes apparent that draws together a placed based approach with cultural ecosystem services and wellbeing.

## 2.5 Bringing It All Together

Alongside pressure on governments to shift from an emphasis on material prosperity to wellbeing are increasing calls for more responsive policy-making that bring in local voices and local accountability (Atkinson et al. 2012a). This move towards the local can be realized through ideas of place making and place-shaping (Schneekloth and Shibley 1994; Steuer and Marks 2009). Integrating a social wellbeing approach with the sense of place approach developed by Acott and Urquhart (2014) and Urquhart and Acott (2014) can help to make more explicit a range of social issues important in human welfare in relation to SSF. For example, gender relations, class relations, food security etc. While these (and other related) issues might be raised in a sense of place analysis, they are not presented as prominently as in a wellbeing approach. Conversely, using sense of place in the context of wellbeing draws out the importance of the phenomenological meanings that people attach to places through place attachment, place dependence, place identity and place satisfaction. These aspects link to the subjective dimension of social wellbeing with the local voice of people being emphasized. However, sense of place also draws in the importance of the physical environment. While much emphasis in the sense of place literature is on the subjective meanings that people assign to places the importance of the physical environment is also highlighted (Stedman 2003a). In the case of SSF this can be demonstrated in the way fishing activity exerts an influence on the physical character of place, e.g. through street decoration, signage, monuments, house decoration, fishing clutter etc. (Acott and Urquhart 2014). The appearance of the physical environment is an important element of place identity and has implications for tourism and regeneration as well as local communities.

These ideas of subjective and material components of sense of place are strongly echoed in the social wellbeing use of subjective and objective parameters (objective being further divided into relational and material within this scheme). Sense of place, therefore, addresses a series of complementary ideas to wellbeing. There is increasing interest in bringing place into a wellbeing framework as demonstrated by the recent publication titled 'Wellbeing and Place' which suggests that wellbeing is fundamentally tied to place (Atkinson et al. 2012b). While Atkinson et al.'s approach focused on wellbeing in the context of health related issues there is considerable scope to further develop perspectives that see wellbeing in situational and relational place-based contexts.

In addition to place-based and wellbeing perspectives, consideration of cultural ecosystem services explicitly brings in the ecological through reference to the ecosystem services framework. Ecosystem services highlight the importance of the ecology that underpins our use of the natural environment. In the case of SSF reference to ecosystem services draws attention to the marine environment, the sustainability of the fishing operation, and the flows between marine and terrestrial environments. In taking this holistic perspective the relations between social, economic and environmental sustainability are drawn out. Although there are problems with the way that ecosystem services are conceptualised (Chan et al. 2012a), as a heuristic device they do provide a mechanism to reflect on relationships between the biophysical properties of environments and human interaction and use of those environments. However, more work needs to be done to develop our understanding of the relationship between ecosystem services, place and wellbeing. As Fish (2011) suggests: “Advocates of the ecosystem services framework need to develop a more elaborate understanding of how a rich and variegated term such as ‘well-being’ maps back onto the services that nature provides” (p. 673). We argue this includes having a deeper understanding of the role of culture and value in ecosystem services and the multiple entanglements that arise in socio-ecological systems as humans and other elements of the environment come together.

Bringing together sense of place, cultural ecosystem services and wellbeing is a step towards a more comprehensive understanding of the relationships between people, place and the environment in coastal communities. However, in thinking about the relations between human wellbeing, the marine ecological resource and the physical environment (marine and terrestrial) it becomes apparent that a perspective is needed that moves beyond dualistic accounts of nature and culture and can make sense of the complex entanglements that connect nature and society. Such a move takes us beyond a social perspective to thinking about co-relations spun between nature/culture, human/non-human and marine/terrestrial contexts.

## 2.6 A Co-constructed Approach

Coastal towns or places with an inshore fishing fleet can be thought of as co-constructed places entangling human perceptions, meanings and values with the natural and human-made spatial reality of place. In other words, coastal places are where natural and human processes intersect through the physical manifestations of fishing and the cultural meanings, practices and emotions linked to marine environments. In this way, coastal towns with fishing fleets become the sites where, through the activity of fishing, the cultural services that humans derive from marine ecosystems become apparent through the entanglement of the natural and human-made environment, material cultural, memory, meaning and human activity. Fishing is, therefore, a transformational activity generating relational networks linking marine and terrestrial environments.



There is an increasing amount of attention being paid to research traditions that eschew the nature/society distinction in favour of socio-natural assemblages understood through a lens of co-constructionism (for example see Fischer and Eastwood (2016)). There are numerous positions that could be placed into this category (although not all scholars would necessarily accept this classification) including actor network theory (Latour 2005), hybrid geography (Whatmore 2002) and non-representational theory (Thrift 2007). Co-constructionism is broadly an attempt to move beyond the social/nature divide and (re)imagine the world from a fundamentally relational perspective. There is, of course, much debate about what such a move would entail and there are many voices contributing to this debate (Hinchliffe and Woodward 2000; Castree 2005, 2013; Hannigan 2014; Irwin 2001; Cudworth 2003; Robbins 2004; Soper 1995; Braun and Castree 1998; Macnaghten and Urry 1998; Eder 1996).

There are already calls that suggest an understanding of cultural ecosystem services requires revisiting binary divisions of nature and culture. Fish (2011) purports that the MEA definition of cultural ecosystem services is problematic in that it puts forward a simplified and reductive idea of culture. He suggests that: "... given the presumed importance of 'ecosystems' to all services, it might logically be more consistent to put 'culture' on an equally foundational footing as that of 'ecosystems'. It would not be implausible to think of the framework as really one of 'ecosystem-cultural services' or, perhaps more elegantly, 'culture-nature' services" (Fish 2011, p. 675). Other researchers (Pröpper and Hautopts 2014) argue that more attention needs to be paid to an understanding of culture and process in the context of ecosystem services. Winthrop (2014) suggests that the ecosystem approach is too narrow to provide insight into knowledge systems, social relations and sense of place and suggests that we need to revisit our understanding of human-natural systems.

In the context of maritime studies increasing attention is being paid to the relevance and utility of co-constructionist perspectives. Examples include Callon's thoughts on the domestication of scallops and fishermen (Callon 1986); Nightingale's (2013) exploration of the relationality of subjects, emotions and socio-natures in the context of Scottish fisheries management; Bear's (2012) description of the regulatory practices in the Cardigan Bay scallop fishery using assemblage theory and Bear and Eden's (2008) use of hybrid geography to describe fluid spaces of fisheries certification. Further, Rossiter et al. (2014) draw on a materialist perspective into assemblages, affect and emotion to offer ways of thinking about marine spaces. They suggest that: "While what we have discussed here certainly provides no panacea, it may offer a somewhat novel way of thinking about and engaging with marine-space(s), a praxis that recognizes its ever assembling and fluid nature ecologically, epistemologically, and ontologically inclusive of the human and socio-cultural" (Rossiter et al. 2014, p. 7). They provide four suggestions about the way materialist insights can pragmatically enhance fisheries policy. First, ontological and discursive shifts must take place allowing the socio-cultural to be made more visible. Second, a multiplicity of ways of knowing must be admitted. Third, the importance of co-management is emphasized. Fourth, the importance of recognizing heterogeneity in different geographic places is identified.

The insights provided by Rossiter et al. (2014) can inform a bringing together of sense of place, cultural ecosystem services and wellbeing. However, for this to happen there are issues of semantics to be addressed. The terms ‘relational’, ‘subjective’ and ‘material’ form the foundation of the social wellbeing approach. However, the meaning of these terms needs to be set against the context of other uses in environmental sociology more broadly. For instance, in the framework presented by Weeratunge et al. (2014) material, relational and subjective are understood as:

‘material’ concerns encompass practical welfare and standards of living (for example, income, wealth, assets, environmental quality, physical health and livelihood concerns among others)

‘relational’ aspects include relations of love and care, networks of support and obligation, social, political and cultural identities, including relations with respect to organs of the state and formal structures, which determine the scope for personal action and influence in the community

‘subjective’ spans notions of self, individual and shared hopes, fears and aspirations, expressed levels of satisfaction or dissatisfaction, trust and confidence among other things

Similarly Charles et al. (2012) defines the terms as (p. 2):

The material dimension focuses on what (resources) a person has and the extent to which the needs of the person are met,

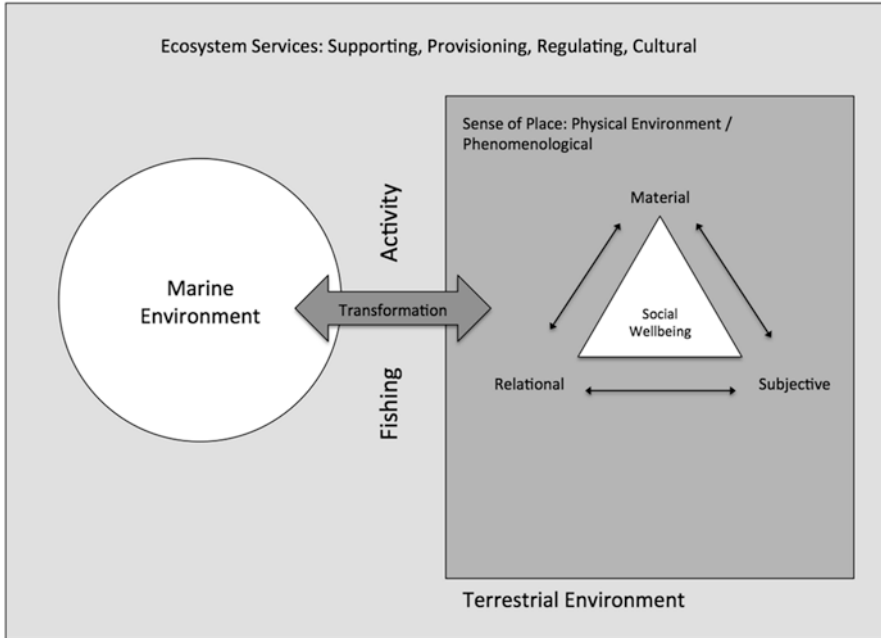
The relational dimension considers social relationships which the person engages in to pursue wellbeing (for example, relations which give access to market or resources, or shape behaviour through institutions, family and social structures),

The cognitive/subjective dimension accounts for satisfaction with the quality of life that is achieved (e.g. ‘happiness’)

In one reading these definitions move us towards a more holistic understanding of people-environment relationships by grounding subjective desires into a relational perspective (White 2010). This approach allows for (and perhaps encourages) a broad interpretation of human-nature relations. However, there is also arguably a strong social emphasis that runs through this wellbeing literature. For instance, Panelli and Tupa (2009) challenge the conventional understanding of wellbeing and instead highlight the complex intersection of people, place and ‘nature-culture’ relations in the context of food practices and indigenous wellbeing.

If part of the value of wellbeing is its use as an analytical lens or a heuristic device then there is value in revisiting the definition of terms so that relational associations between nature and society are made more explicit. For example, we might extend the idea of ‘material’ beyond ‘what a person has’ and use the term to refer to both natural and human-made objects or environments and the way these are encountered by people (Woodward 2007). In the context of SSF this might refer to how the activities of fishermen influence the physical world through the ecological impact on levels of fish stocks through to fishermen creating artworks for the tourist market, the buildings that are established for the fishing industry (net lofts, warehouses, harbours etc.).

The emphasis of ‘relational’ in the preceding examples refers to social relations. This is clearly an important aspect of fisheries governance and understanding the



**Fig. 2.3** A co-constructionist view of SSF, wellbeing and sense of place

broader societal importance of SSF. However, ‘relational’ can also be interpreted more broadly as the webs of associations that exist between different parts of the environment; for instance between the human and non-human, marine and terrestrial etc. From this broader perspective the idea of relational has the potential to capture intimate connections of marine organisms and a range of terrestrial effects. Networks are created between multiple actors driven by the values of marine organisms. An obvious example is selling fish for human nutrition. This nutritional value is embedded in a long chain of transformations (fish, catching, landing, market, processing, selling, distribution, cooking, eating). The creation of multiple values drives these transformations with complex webs of associations emerging (e.g. the industry surrounding cooking fish, the production of fisheries-related tourist souvenirs, the importance of fishing for community identity, the levels of stocks impacted by regulation).

Relationality can be used as a way of expressing the intimate, often invisible links, between marine organisms and terrestrial environments. Figure 2.3 expresses these links in terms of transformation. SSF can be considered a driver that connects marine and terrestrial environments. Taking fish from the ocean results in a series of transformations creating effects in the terrestrial environment, e.g. income, art, architecture, sculpture, identity, social cohesion etc. These effects can be explored through place-based and wellbeing narratives.

Such a relational perspective encourages a holistic way of thinking about the effects and affects of SSF and is not restricted by disciplinary or sectoral boundaries. The challenge is how to identify the flows and transformations that exist. The

problems of integrating a cultural perspective with a policy making framework dominated by natural science and economics is illustrated by Leyshon (2014). A holistic perspective will necessarily involve different disciplinary perspectives (sociology, anthropology, politics, economy, ecology, health, environmental science etc.) and may also highlight new opportunities for increasing environmental and human wellbeing (e.g. more clearly understanding the links between tourism, planning, livelihoods etc.). Understanding more about non-representational facets of human/environment encounters may also add new insights into the importance of place for wellbeing (Andrews et al. 2014). If an overarching goal is to understand the value of SSF we believe that such multi-perspective approaches that focus on relationships spun between the social and ecological are essential.

## 2.7 Conclusion

Fisheries management has been widely criticized as focusing on economic and biological concerns. The wellbeing approaches set out in this edited volume help to rectify that problem by focusing attention on human aspects of welfare and the myriad values that emerge from SSF. In adopting this perspective though it is important to include the socio-ecological aspects of fisheries as well as the purely social. We believe that adopting a co-constructionist perspective, related to understanding sense of place, cultural ecosystem services and wellbeing can help make visible relational associations between the marine and terrestrial environments revealing potentially hidden values of SSF.

Places are more than static backdrops, they are dynamic, fluid, process-driven locations constantly evolving as environment, people, activities, legislation, policies etc. interrelate in complex and unexpected ways. Finding ways to understand and map these processes and flows as the marine and terrestrial worlds collide is part of the challenge of developing sustainable coastal communities. SSF is an activity that has an impact on and emerges from both socio-cultural and natural worlds and thus calls for interdisciplinary approaches to understand the complex people-place-environment relationships that occur in fishing communities. Perhaps a new politics of responsibility will be required as greater consideration and visibility is given to the entwining of human and non-human dimensions.

At the start of their paper Pröpper and Haupts (2014) suggest that: 'People worldwide depend on resources that nature provides for their lives, often without full awareness of their true value' (p. 28). Consideration of the values of nature is an appropriate point to conclude this chapter. The emphasis in much of the preceding discussion has been to make an argument about the need to bring together different conceptual perspectives in order to reveal the values of small-scale fisheries. Biological and economic assessments capture an important, but partial, picture of the importance of fisheries. If ultimately the future of fisheries depends on the policy frameworks within which the industry operates and on grassroots understanding of the importance of the activity, then it is vital that approaches are used that can ade-

quately capture the complex array of ecological and cultural entanglements that emerge as a result of fishing activity. An ecosystems approach has the danger of falling into the trap of being dominated by natural scientists and economists. A rethinking of cultural ecosystem services, in light of ideas like sense of place and social wellbeing, provide avenues for thinking more holistically about culture and nature. However, pursuing this agenda raises philosophical problems for thinking about dualistic versus non-dualistic epistemologies and ontologies.

Attending to a socio-ecological world is no small task, in part it means reappraising what we mean by culture and nature as we become aware of a world that is not divided into separate clear cut categories. The overlapping and interdependent dimensions of nature-culture values means we need to think about a broad range of parameters in decision making (Pröpper and Haupts 2014). What we value individually and as a society reflects what we think is important. If value is a deeply embedded culture-nature process then approaches are needed that can pursue value across multiple subjective and objective dimensions. Rethinking SSF from a relational place-based socio-ecological perspective opens up opportunities to see how multiple values are bound up with fishing practice. It is hoped that this chapter will encourage people to think about how to understand the importance of SSF for society and to reflect on the value dimensions that draw together socio-ecological dimensions.

**Acknowledgements** The authors would like to acknowledge the contribution of INTERREG IVA Channel Programme CHARM III (Channel Integrated Approach for Marine Resource Management) and INTERREG IVA 2 Seas Programme GIFS (Geography of Inshore Fishing and Sustainability) for co-funding the work used to produce this book chapter. Additionally, this book contribution resulted from our paper presentations at the 2nd World Small-Scale Fisheries Congress in Merida, Mexico in 2014. We are grateful to the 2 Seas Programme for allowing us to part fund the trip from our project budget.

## References

- Acott T, Urquhart J (2012) Marine fisheries and sense of place in coastal communities of the English Channel. In: Final report prepared as part of the INTERREG 4a CHARM III project. University of Greenwich, Chatham
- Acott T, Urquhart J (2014) Sense of place and socio-cultural values in fishing communities along the English Channel. In: Urquhart J, Acott T, Symes D, Zhao M (eds) Social issues in sustainable fisheries management. Springer, London, pp 257–278
- Altman IA, Low SM (eds) (1992) Place attachment. Plenum, New York
- Andrews GJ, Chen S, Myers S (2014) The ‘taking place’ of health and wellbeing: towards non-representational theory. *Soc Sci Med* 108:210–222. doi:[10.1016/j.socscimed.2014.02.037](https://doi.org/10.1016/j.socscimed.2014.02.037)
- Atkinson S, Fuller S, Painter J (2012a) Wellbeing and place. In: Atkinson S, Fuller S, Painter J (eds) Wellbeing and place. Ashgate, Farnham, pp 1–14
- Atkinson S, Fuller S, Painter J (2012b) Wellbeing and place. Ashgate, Farnham
- Bear C (2012) Assembling the sea: materiality, movement and regulatory practices in the Cardigan Bay scallop fishery. *Cult Geogr*. doi:[10.1177/1474474012463665](https://doi.org/10.1177/1474474012463665)
- Bear C, Eden S (2008) Making space for fish: the regional, network and fluid spaces of fisheries certification. *Soc Cult Geogr* 9(5):487–504. doi:[10.1080/14649360802224358](https://doi.org/10.1080/14649360802224358)

- Braun B, Castree N (1998) *Remaking reality: nature at the millenium*. Routledge, London
- Britton E, Coulthard S (2013) Assessing the social wellbeing of Northern Ireland's fishing society using a three-dimensional approach. *Mar Policy* 37:28–36. doi:[10.1016/j.marpol.2012.04.011](https://doi.org/10.1016/j.marpol.2012.04.011)
- Callon M (1986) 'Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. In: Law J (ed) *Power, action and belief: a new sociology of knowledge*. Routledge & Kegan Paul, London, pp 196–233
- Carpenter SR, Mooney HA, Agard J, Capistrano D, DeFries RS, Díaz S, Dietz T, Duraiappah AK, Oteng-Yeboah A, Pereira HM, Perring C, Reid WV, Sarukhan J, Scholes RJ, Whyte A (2009) Science for managing ecosystem services: beyond the millennium ecosystem assessment. *Proc Natl Acad Sci U S A* 106(5):1305–1312
- Castree N (2005) *Nature*. Routledge, London
- Castree N (2013) *Making sense of nature*. Routledge, London
- CBD (2004) *The ecosystem approach*, CBD Guidelines. Secretariat of the Convention on Biological Diversity. Convention of Biological Diversity, Montreal
- Chan KM, Guerry AD, Balvanera P, Klain S, Satterfield T, Basurto X et al (2012a) Where are cultural and social in ecosystem services? A framework for constructive engagement. *Bioscience* 62(8):744–756. doi:[10.1525/bio.2012.62.8.7](https://doi.org/10.1525/bio.2012.62.8.7)
- Chan KMA, Satterfield T, Goldstein J (2012b) Rethinking ecosystem services to better address and navigate cultural values. *Ecol Econ* 74:8–18. doi:[10.1016/j.ecolecon.2011.11.011](https://doi.org/10.1016/j.ecolecon.2011.11.011)
- Charles A, Allison EH, Chuenpagdee R, Mbatha P (2012) *Well-being and fisheries governance*. In IIFET 2012, Tanzania, 2012
- Church A, Burgess J, Ravenscroft N (2011) *Cultural services*. In: UK national ecosystem assessment: technical report. UNEP-WCMC, Cambridge
- Coulthard S (2012) What does the debate around social wellbeing have to offer sustainable fisheries? *Curr Opin Environ Sustain* 4(3):358–363. doi:[10.1016/j.cosust.2012.06.001](https://doi.org/10.1016/j.cosust.2012.06.001)
- Coulthard S, Johnson D, McGregor JA (2011) Poverty, sustainability and human wellbeing: a social wellbeing approach to the global fisheries crisis. *Glob Environ Chang* 21(2):453–463. doi:[10.1016/j.gloenvcha.2011.01.003](https://doi.org/10.1016/j.gloenvcha.2011.01.003)
- Creswell T (2004) *Place: a short introduction*. Blackwell Publishing, Oxford
- Cudworth E (2003) *Environment and society*. Routledge, London
- de Groot R (1987) Environmental functions as a unifying concept for ecology and economics. *Environmentalist* 7(2):105–109
- De Young C, Charles A, Hjort A (2008) *Humans dimensions of the ecosystem approach to fisheries: an overview of context, concepts, tools and methods*. FAO Series Technical Paper No. 480, Food and Agricultural Organization of the United Nations, Rome
- Eder K (1996) *The social construction of nature*. Sage, London
- Fischer A, Eastwood A (2016) Coproduction of ecosystem services as human–nature interactions—an analytical framework. *Land Use Policy* 52:41–50. doi:[10.1016/j.landusepol.2015.12.004](https://doi.org/10.1016/j.landusepol.2015.12.004)
- Fish RD (2011) Environmental decision making and an ecosystems approach: some challenges from the perspective of social science. *Prog Phys Geogr* 35(5):671–680. doi:[10.1177/0309133311420941](https://doi.org/10.1177/0309133311420941)
- Haines-Young R, Potschin M (2010) The links between biodiversity, ecosystem services and human well-being. In: Raffaelli DG, CLJ F (eds) *Ecosystem ecology: a new synthesis*. Cambridge University Press, Cambridge
- Hannigan J (2014) *Environmental sociology*, 3rd edn. Routledge, London
- Hinchliffe S, Woodward K (2000) *The natural and the social: uncertainty, risk, change*, 2nd edn. Routledge, London
- Holloway L, Hubbard P (2001) *People and place: the extraordinary geographies of everyday life*. Pearson Education Ltd., Harlow
- Irwin A (2001) *Sociology and the environment: a critical introduction to society, nature and knowledge*. Polity Press, Cambridge
- Jorgensen B, Stedman RC (2001) Sense of place as an attitude: Lakeshore owners' attitudes toward their properties. *J Environ Psychol* 21:233–248

- Jorgensen BS, Stedman RC (2006) A comparative analysis of predictors of sense of place dimensions: attachment to, dependence on, and identification with lakeshore properties. *J Environ Manag* 79:316–327
- Latour B (2005) *Reassembling the social: an introduction to actor network theory*. Oxford University Press, Oxford
- Leyshon C (2014) Cultural ecosystem services and the challenge for cultural geography. *Geogr Compass* 8(10):710–725. doi:[10.1111/gec3.12160](https://doi.org/10.1111/gec3.12160)
- Mace GM, Bateman IJ, Albon S, Balmford A, Brown C, Church A, Haines-Young R, Pretty JN, Turner K, Bhaskar V and Winn J (2011) Conceptual framework and methodology. In: Chapter 2 of the UK National ecosystem assessment Technical Report. UNEP-WCMC, Cambridge, UK. pp 11–25.
- Macnaghten P, Urry J (1998) *Contested natures*. Sage Publications Ltd., London
- Manzo LC (2005) For better or worse: exploring multiple dimensions of place meaning. *J Environ Psychol* 25:67. -96).
- Massey D, Jess P (eds) (1995) *A place in the world?* Oxford University Press, Oxford
- McGregor JA (2006) Researching wellbeing: from concepts to methodology. In: Gough I, McGregor JA (eds) *Wellbeing in developing countries*. Cambridge University Press, Cambridge
- McGregor JA (2008) *Wellbeing, poverty and conflict*. Wellbeing in Developing Countries Research Group Briefing Paper 01/08
- McGregor A, Sumner A (2010) Beyond business as usual: what might 3-D wellbeing contribute to MDG momentum? *IDS Bull* 41(1):104–112
- MEA (2005) *Ecosystems and human well-being: synthesis*. In: M. E. Assessment (ed) . Island Press, Washington, DC
- Nightingale A (2013) Fishing for nature: the politics of subjectivity and emotion in Scottish inshore fisheries management. *Environ Plann A* 45(10):2362–2378. doi:[10.1068/a45340](https://doi.org/10.1068/a45340)
- Panelli R, Tipa G (2009) Beyond foodscapes: considering geographies of Indigenous well-being. *Health Place* 15(2):455–465. doi:[10.1016/j.healthplace.2008.08.005](https://doi.org/10.1016/j.healthplace.2008.08.005)
- Plieninger T, Dijks S, Oteros-Rozas E, Bieling C (2013) Assessing, mapping, and quantifying cultural ecosystem services at community level. *Land Use Policy* 33:118–129. doi:[10.1016/j.landusepol.2012.12.013](https://doi.org/10.1016/j.landusepol.2012.12.013)
- Pröpfer M, Haupts F (2014) The culturality of ecosystem services. Emphasizing process and transformation. *Ecol Econ* 108:28–35. doi:[10.1016/j.ecolecon.2014.09.023](https://doi.org/10.1016/j.ecolecon.2014.09.023)
- Proshansky HM, Fabian AK, Kaminoff R (1983) Place-identity. *J Environ Psychol* 3:57–83
- Relph E (1976) *Place and placelessness*. Pion, London
- Rieprich R, Schnegg M (2015) The value of landscapes in Northern Namibia: a system of intertwined material and nonmaterial services. *Soc Nat Resour* 28(9):941–958. doi:[10.1080/08941920.2015.1014598](https://doi.org/10.1080/08941920.2015.1014598)
- Robbins P (2004) *Political ecology*. Blackwell, Oxford
- Rossiter JS, Curti GH, Moreno CM, Lopéz-Carr D (2014) Marine-space assemblages: towards a different praxis of fisheries policy and management. *Appl Geogr*. doi:[10.1016/j.apgeog.2014.12.015](https://doi.org/10.1016/j.apgeog.2014.12.015)
- Satz D, Gould RK, Chan KM, Guerry A, Norton B, Satterfield T et al (2013) The challenges of incorporating cultural ecosystem services into environmental assessment. *Ambio* 42(6):675–684. doi:[10.1007/s13280-013-0386-6](https://doi.org/10.1007/s13280-013-0386-6)
- Seamon D (2000) A way of seeing people and place: phenomenology in environment-behavior research. In: Wapner S, Demick J, Yamamoto T, Minami H (eds) *Theoretical perspectives on environmental behavior research*. Kluwer Academic/Plenum Press, New York, pp 157–178
- Schneekloth L, Shibley R (1994) *Placemaking: the art and practice of building community*. Wiley, New York
- Soper K (1995) *What is nature?* Blackwell, Oxford
- St Martin K, Hall-Arber M (2008) Creating a place for “Community” in New England fisheries st martin. *Hum Ecol Rev* 15(2):161–170
- Stedman RC (2003a) Is it really just a social construction?: the contribution of the physical environment to sense of place. *Soc Nat Resour* 16(8):671–685

- Stedman RC (2003b) Sense of place and forest science: toward a program of quantitative research. *For Sci* 49(6):822–829
- Steuer N, Marks N (2009) *Local wellbeing: can we measure it?* The Young Foundation and NEF, London
- Stiglitz J, Sen A, Fitoussi J (2009) Report of the commission on the measurement of economic performance and social progress. The Commission, Paris
- Symes D, Phillipson J (2009) Whatever became of social objectives in fisheries policy? *Fish Res* 95(1):1–5
- Thrift N (2007) *Non-representational theory: space, politics, affect*. Routledge, London
- Trimble M, Johnson D (2013) Artisanal fishing as an undesirable way of life? The implications for governance of fishers' wellbeing aspirations in coastal Uruguay and southeastern Brazil. *Mar Policy* 37:37–44. doi:[10.1016/j.marpol.2012.04.002](https://doi.org/10.1016/j.marpol.2012.04.002)
- Tuan Y-F (1974) *Topophilia: a study of environmental perceptions, attitudes and values*, 2nd edn. Prentice Hall, Englewood Cliffs
- Tuan Y-F (1977) *Space and place: the perspectives of experience*. University of Minnesota Press, Minneapolis
- Urquhart J, Acott T (2014) A sense of place in cultural ecosystem services: the case of Cornish fishing communities. *Soc Nat Resour* 27(1):3–19
- Urquhart J, Acott T, Reed M, Courtney P (2011) Setting an agenda for social science research in fisheries policy in Northern Europe. *Fish Res* 108:240–247
- Urquhart J, Acott TG, Sanghera A (2014a) Sense of place and cultural values in inshore fishing communities. Final GIFS Report Activity 2.1. University of Greenwich, p 135
- Urquhart J, Acott T, Symes D, Zhao M (eds) (2014b) *Social issues in sustainable fisheries management*, MARE Publication Series, vol 9. Springer, London
- Weeratunge N, Béné C, Siriwardane R, Charles A, Johnson D, Allison EH et al (2014) Small-scale fisheries through the wellbeing lens. *Fish Fish* 15(2):255–279. doi:[10.1111/faf.12016](https://doi.org/10.1111/faf.12016)
- Whatmore S (2002) *Hybrid geographies: natures cultures spaces*. Sage, London
- White SC (2010) Analysing wellbeing: a framework for development practice. *Dev Pract* 20(2):158–172. doi:[10.1080/09614520903564199](https://doi.org/10.1080/09614520903564199)
- Winthrop RH (2014) The strange case of cultural services: limits of the ecosystem services paradigm. *Ecol Econ* 108:208–214. doi:[10.1016/j.ecolecon.2014.10.005](https://doi.org/10.1016/j.ecolecon.2014.10.005)
- Woodward I (2007) *Understanding material culture*. Sage, London

**Tim G. Acott** is a Reader in Human Geography at the University of Greenwich. He is Director of the Greenwich Maritime Centre and is currently the Chair of the Coastal and Marine Research Group at the Royal Geographical Society. Over the last 8 years he has worked extensively on understanding the social and cultural importance of fisheries through sense of place and cultural ecosystem services. He co-edited a book in 2014 called 'Social Issues in Sustainable Fisheries Management' and has published numerous articles. His most recent research is leading a project exploring the socio-natural values of wetlands from a co-constructionist perspective.

**Julie Urquhart** is an environmental social scientist in the Centre for Environmental Policy, Imperial College London. Her research interests include exploring human-environment relationships in order to understand how people relate to and value nature and how this can inform natural resource management and environmental policy. She was a co-investigator on two projects between 2011–2014 that investigated the social and cultural values associated with small-scale fisheries through place-based approaches in order to inform fisheries policy and coastal management in England, France, Belgium and the Netherlands.



# Chapter 3

## Symbols of Resilience and Contested Place Identity in the Coastal Fishing Towns of Cromer and Sheringham, Norfolk, UK: Implications for Social Wellbeing

Carole Sandrine White

**Abstract** Fishing has been a core part of the identities of Cromer and Sheringham, rural coastal communities with a long tradition of inshore crab fishing in the East of England. However, given the decline in the number of fishing boats and wider demographic, economic and social change, the fishing identity of these towns is perceived as threatened. Drawing on qualitative research, this chapter develops a conceptual approach drawing on perspectives from place research and social wellbeing to explore the different place meanings held by coastal residents, visitors and fishermen. A focus on how different people relate to place and with each other provides a more nuanced understanding of social wellbeing. Tensions over place identity are exposed particularly between ‘newcomers’ and local residents, and over aspirations for economic development. Cromer and Sheringham’s fishing identity is being defended by the fishermen and those who value the fishery. This case study reveals the political nature of how different understandings of place, development and wellbeing are constructed and contested. The future of the fishery and the town will depend on whose values and place meanings are privileged and represented in governance processes.

**Keywords** Place representation • Fishing communities • Social change • Inequality • Resident and visitor perceptions

### 3.1 Introduction

Fishing has long been part of the British Isles’ maritime identity. However over recent decades, coastal areas in the United Kingdom have experienced a decline in their fisheries and the development of other industries including seaside recreation,

---

C.S. White (✉)

School of International Development, University of East Anglia, Norwich, UK  
e-mail: [Carole.white@uea.ac.uk](mailto:Carole.white@uea.ac.uk)

tourism and offshore energy. The latter has been encouraged through policies to address historical overfishing in Europe and develop alternative industries to grow a 'blue economy'. At the same time, many coastal populations of the UK have experienced deepening social inequality. Little research has been focused on how such communities have experienced changes to places once defined by a fishing identity (Nadel-Klein 2000; Brookfield et al. 2005; Williams 2014). Nevertheless, a wealth of research has elsewhere shown that the ways in which individuals and communities relate to a place contributes to wellbeing through a sense of identity and belonging (Hummon 1992; Trentelman 2009; Rollero and De Piccoli 2010). More recent work has highlighted the role of place and identity in explaining people's response to changes in their environment (Marshall et al. 2012; Adger et al. 2012; Tidball and Stedman 2013; Amundsen 2013). Given some of the significant changes occurring in coastal places, research into how change is experienced by these communities is necessary. Key questions include, to what extent is fishing still a significant part of a collective place identity? What are the social implications of losing such an identity? Answering these questions requires an understanding of what local fisheries mean to people in places where they are perceived as threatened.

This chapter explores the different place meanings that exist in coastal communities experiencing change and a decline in their fishing industry, using the case study of Cromer and Sheringham in Norfolk, England and their associated crab fisheries. A conceptual framework is developed that draws together perspectives from place research with a social wellbeing approach to analyse the different experiences of change and their implications for residents, visitors and fishermen. I suggest that a focus on how different people relate to place and with each other in a particular locality provides a more nuanced understanding of how social wellbeing is constructed and pursued. As Coulthard (2012) discusses, tensions can develop in response to change when trade-offs among subjective dimensions of wellbeing, such as place attachment and identity, are involved. Using a case study, the different ways in which residents and visitors relate to coastal places is contrasted to fishermen's relationships with place. The implications for the future of inshore fishing communities and the social wellbeing of coastal towns are drawn out in the context of ongoing social, economic and demographic change.

The chapter begins by introducing the case study, followed by a discussion of the conceptual and methodological approaches in Sect. 3.2. The analysis is then presented in the following three sections. Section 3.3 characterises Cromer and Sheringham by reflecting on the kind of places they are and explores the extent fishing is part of place identity and how this is constructed and maintained by those who live, work and visit regularly. Section 3.4 discusses how residents and visitors value and relate to fishing and how place meanings are being contested by different groups. Section 3.5 explores the tensions between place identity and fisheries and considers perceptions of local change in the context of global processes. Finally, this chapter concludes in Sect. 3.6 by discussing the wider implications for the social wellbeing of coastal communities experiencing changes in identity.

### 3.1.1 The ‘Cromer Crab’ Fishery

Cromer and its neighbouring town Sheringham, in the East of England (Fig. 3.1) were selected as a case study owing to their long tradition of inshore crab fishing and the apparent relationship between fishing and place identity. These towns have been known since the mid 1800s for their ‘Cromer Crab’, which has a reputation for being smaller and sweeter than in the rest of the country. These towns developed following the construction of the railway to London and rising numbers of visitors to the coast during Victorian times. In 1875, there were 100 crab boats in Sheringham and 50 in Cromer, with an estimated 200 fishermen. At the time the population of Cromer was 1415 and Sheringham was 1250. The towns have a history of deep rivalry, which was historically due to fishing that once represented their main source of income. Today, tourism presents a significant source of income for both towns. Their town councils jointly hold an annual Crab and Lobster festival.<sup>1</sup> In 2013, the fishery as a whole involved 48 boats with 75 fishermen along the entire North



**Fig. 3.1** Map of case study area of Cromer and Sheringham in North Norfolk situated within the East of England. The main landing sites in North Norfolk are the harbour of Wells-next-the-sea and Cromer beach. Although the fishery’s boundaries are debated, it is generally understood as extending from Bacton to Wells and is commonly referred to as the Cromer crab fishery (Adapted from Google maps, 2014)

<sup>1</sup>It was set up since 2010 to bring tourists to the coast at the start of the season, in May.

Norfolk coast, a third of which are part-time, and operated from a dozen locations, mostly beaches (IFCA, *pers comm.*, 2014). The proportion of Cromer and Sheringham's population, now 7949 and 7367 respectively (UK 2011 Census), working in fisheries has declined over time. Seventeen mostly full-time boats employ twenty fishermen work from Cromer beach compared to five or six mostly part-time boats in Sheringham (IFCA, *pers comm.*, 2014). These are part of a specialised, seasonal, small-scale fishery for crab and lobster with most boats under 10 m in length, generally operated by one fisherman in a fibreglass 'skiff' which replaced the larger double-ended wooden crab boats in the 1990s.<sup>2</sup> The causes for the decline in inshore fisheries can be attributed to increasing difficulties in making a good living from this occupation. Aside from lower catches, the regulatory framework for fisheries has become more restrictive making the process of becoming and working as a fisherman more difficult and expensive (White 2015).

Beyond its fisheries, North Norfolk has been identified as strategically important for the development of offshore wind energy and meeting carbon emission reduction targets. In 2012, 88 turbines were built off Sheringham and further sites are marked for development off Norfolk, potentially providing a new source of employment. Demographically, these towns have changed and the market for housing in North Norfolk is disproportionately driven by retirement and second home purchases. Fishing villages including Weybourne, Morston and Brancaster now have over 50% of their homes in second ownership (Norfolk Coastal Partnership 2013). This explains why North Norfolk has the highest average house prices regionally despite having the lowest average wages (ONS 2011a, b). In sum, the social and economic context of these coastal fishing communities has changed considerably. The dependency of these communities on the fishing industry has been reduced, at least in purely economic terms, as is the case across the UK (Ross 2012). However, the Cromer crab is still emblematic of Cromer. Its beach fishery is still active, provides local direct and indirect employment and attracts interest from visitors. With such an apparent level of place based identity linked to crab, a high level of attachment to the fishery could be expected from its community.

### 3.2 Conceptual Approach and Methodology

The conceptual approach used in this study combined phenomenological ideas to the study of place<sup>3</sup> in human geography (e.g. Relph 1976; Tuan 1974) and a social wellbeing approach from development studies (Gough and McGregor 2007; White 2010). A social wellbeing approach – involving three dimensions: subjective,

---

<sup>2</sup>Contrary to many other UK fisheries, this fishery is subject to little regulation, aside from a minimum landing size, and restrictions on landing berried lobster caught within the 6-mile zone.

<sup>3</sup>Place research originates from many different disciplines, from geography to psychology as has been commented on elsewhere, and it is often criticised for a lack of conceptual clarity (see Lewicka 2011 for a review; and Gifford and Scannell 2010 for a unifying framework).

relational and material (see Chap. 1) – has been applied to studying fisheries and usefully highlighted the often missed social impacts resulting from policy and management measures (Coulthard et al. 2011). The physical and social space of the ‘enabling environment’ within which wellbeing is pursued are clearly emphasized in Armitage et al.’s (2012) definition (following McGregor 2008) of social wellbeing as “a state of *being with others and the natural environment* where human needs are met, where one can act meaningfully to pursue one’s goals & where one enjoys a satisfactory quality of life”. I suggest that the physical and social roles of place,<sup>4</sup> – which I discuss next – can help deepen the use of social wellbeing and are useful in understanding how different people experience change.

While places become meaningful to people based on the social interactions and experiences that they have, people’s attachments to place also depend on the physical aspects that shape their environment (Stedman 2003). Regardless of the extent to which physical or social factors influence people’s relationships to and within place, places are considered to be fundamental to what it means to be human: “To be human is to live in a world that is filled with significant places: to be human is to have and know *your* place” (p.1, Relph (1976) emphasis added). Particular places offer a sense of continuity and security, where they are associated with pursuing social relationships or activities over the long-term (Relph 1976; Twigger-Ross and Uzzell 1996; Gutsafson 2001). This resonates with the subjective and relational dimensions of wellbeing, particularly in terms of being able to fulfill one’s valued goals (self-actualisation) through relationships with others. Places can therefore play a crucial role in providing people with a purpose and meaning in their lives. With this in mind, several key concepts from the place literature are worth mentioning.

Place attachment – or person-place bonding – is understood as the symbolic, emotional relationship formed when people individually and collectively attribute meanings to particular places, reinforced through shared cultural beliefs and practices (Low and Altman 1992). Place attachment is therefore relational, material and subjective. It involves belonging and identifying with somewhere and those in it, contributing to a sense of belonging or exclusion (Eyles and Williams 2008). Identifying with somewhere requires one place to be characterised and distinguished from another place (Twigger-Ross and Uzzell 1996). As Gustafson, (2001 page 13) noted, *‘Importantly, similarities as well as differences may contribute to the distinction of place, as distinction is not just about establishing uniqueness but also [...] what it has in common with other places’*. Place identity – which engages with these ideas of identification – is a sub-structure of self-identity (Proshansky et al. 1983) and can, along with place attachment, powerfully shape people’s behaviour (Devine-Wright and Howes 2010). This also relates to a *social* or *relational* conception of wellbeing, which not only reflect individualistic preferences and aspirations, but also shared values and understandings of society (Gough and McGregor 2007). It is important to note that ‘place identity’ refers to an individual’s or group’s sense of

---

<sup>4</sup>Place is defined as ‘space that has been given meaning through personal, group or cultural process’ (Low and Altman 1992, p.5).

belonging somewhere while ‘identity of a place’ refers to the perceived nature of a place by individuals or a groups. Finally, the social and physical space where wellbeing is conceived as ‘a state of being with others’, may exist at different scales (e.g. a town, a society, community or group). This last point leads us to question whose wellbeing is the focus of the study and how it is constructed.

Operationalising wellbeing at the community level (as social rather than individual) requires a consideration of whose wellbeing should be included, of who is part of ‘the community’. Similarly, place meanings, attachments and identities are multi-scalar. The ways in which different individuals relate to the same place collectively, and how place meanings are reproduced in the community can result in a commonly held place identity. This chapter focuses on collective meanings individuals have to shared public places in the town rather than attachments to private places (e.g. the home). However, determining communally held meanings of place is methodologically challenging as it necessarily depends on asking individuals about their understandings of place. Therefore, attention must be paid to sampling and using multiple methods to understand how places are understood. Research on coastal fishing communities often focuses on groups of fishers rather than the wider community, with the views of residents other than those in the catching sector being rarely sought (Jacob et al. 2005). In this chapter, a broad definition of ‘community’ is used, which includes geographically bound but intersecting communities of individuals working both in and not in fishery-related occupations. These intersecting communities and individuals within them may vary in their beliefs, goals, needs, preferences and values, but are shaped by common local government politics, policies, planning, local culture and heritage.

A further challenge in researching wellbeing and place identity is that these concepts are constructed temporally (from childhood experiences to other life stages) and across numerous spatial scales (for instance from the home to a neighbourhood or a country). Place meanings are not fixed but constantly evolving, being maintained or altered over time through processes where individual and group interests compete or converge (Gustafson 2001). Equally, place meanings may be modified or maintained due the active role of individuals or groups seeking to initiate or moderate change (Tidball and Stedman 2013). Knowing what particular places represent and why they are meaningful to different people is essential if we are to understand the wellbeing implications for different groups responding to changing places and the potential contestations over place (Devine-Wright and Howes 2010).

### ***3.2.1 Data Collection***

Data for this research was collected as part of a doctoral research project between February 2013 and February 2014 and involved two main methods: interviews and questionnaires. During this period, the author spent time in Cromer, Sheringham and other coastal fishing places in the area, meeting fishermen and others involved in fisheries such as processors, government agencies and charities working in the

community to understand perspectives from those working as or with fishermen. Thirty-two semi-structured interviews were recorded with fishermen and a small number of women from the Cromer Crab fishing community over this period. Eleven of these interviews also included a structured interview aimed at assessing relational and subjective dimensions of wellbeing (see White 2014 for further information). Unstructured interviews and observation were conducted along the sea-front with fishermen in Cromer and Sheringham and while accompanying them in their daily activities. Secondary data was collected throughout the fieldwork period including any relevant newspaper articles, data from the Office of National Statistics Census (ONS) and reports to the North Norfolk District Council (NNDC) or the Inshore Fisheries and Conservation Authority (IFCA).

A questionnaire survey was carried out in the coastal towns of Cromer and Sheringham. This was completed with local residents and regular visitors in both towns over several weeks in August and September 2013. There were four sections to the questionnaire. The first was aimed at assessing relationship to and familiarity with place. The second focused on identification with place, and meaningful places. As part of this, participants were asked for five words associated with the place. They also had to list five places they enjoyed being in and state which was the most personally meaningful and why. Another question asked respondents to compare the town with other coastal places. Comparisons between places inherently involve some valuation in positive or negative terms, which makes these places meaningful (Gustafson 2001). Even when a place is not directly valued by an individual *per se*, it can be meaningful because of how it contributes to a place's identity and to social wellbeing. Thirdly, their level of interaction with the coastal environment was assessed by asking about recreational seaside activities and their knowledge of local fisheries by asking if they knew where to buy seafood and if they had watched fishing boats working from the beach (Table in Appendix). Finally, their perceptions of change over the past decade were explored and a final question used a postcard exercise with 16 images of Cromer (or Sheringham), which represented different aspects of the place. Three cards were selected by the respondent that represented the sort of place they felt it was. The images used were chosen by the author (following discussion with key informants) and depicted similar contexts in both Cromer and Sheringham, for example an image of the high street, the beach, seafood stall, war memorial, fishing boats.<sup>5</sup>

**Sampling and Administration of Questionnaire** The questionnaire was administered by the author and two research assistants. It could be completed in 10 min. However, time was also allowed for longer conversations or unstructured interviews to take place with residents and visitors. Notes were made during or after the interview.

The sampling strategy was aimed at purposively collecting perspectives from a range of individuals (following the approach by Trost 1986). As far as possible, a

---

<sup>5</sup>Where this was not possible, I used an equivalent feature. For example, a picture of Cromer pier was replaced with a picture of Sheringham steam railways for which it is best known.

mix of men, women, and age groups, and length of residence, frequency of visits were sought but participant selection was relatively opportunistic. After a piloting phase, questionnaires were interview administered across different locations (e.g. fishermen's fish shops, the beach, near fishing boats, outside museum, cinema, church, bus stop and train station, on the pier and the high street) and at different times.

The construction of one's idea of a place's identity is fully developed only after a certain amount of time spent in place. Therefore, although everyone was approached, questionnaires were only completed with those residents and visitors who considered they knew the town well. As the majority of respondents in the study had 'known' the town for over 2 years, questionnaires with those having less than 2 years experience of Cromer or Sheringham were excluded.

As the aim was to understand how the general public perceived and identified fishing in Cromer and Sheringham in relation to the many other possible features and activities, the questionnaire was introduced to participants as being about 'how different people relate to coastal places, whether they live, work or visit regularly'. Impressions of the fishery were only specifically asked about through an open question at the end of the questionnaire. All interview transcriptions, notes and questionnaire data was imported for thematic analysis using NVivo 10. Codes were used reflecting whether the participant was a resident or visitor, in Sheringham or Cromer (e.g. SR = Sheringham resident, CV = Cromer visitor).

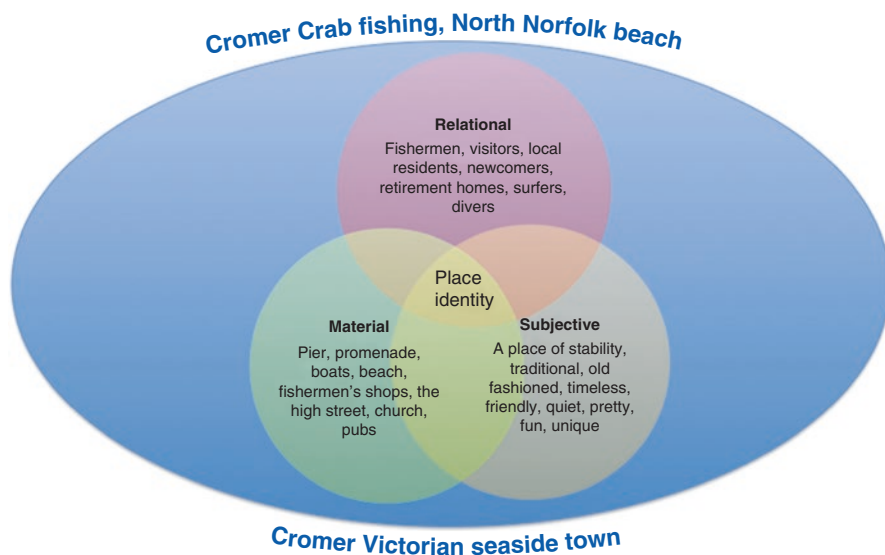
As Cromer is the focal point of the Cromer crab fishery and a majority of questionnaires were collected here, this chapter emphasizes data collected in Cromer rather than Sheringham. The case of Sheringham is used in contrast to Cromer, as a neighbouring fishing town, with a shared tradition, in which fishing has declined more significantly. The next section explores how Cromer and Sheringham are understood as places by residents and visitors.

### **3.3 Constructing Place: What Kind of Place Is This?**

The ways in which people value coastal towns and construct their place identity relate to the interaction between the three dimensions of wellbeing. In this section, I start to discuss how people in Cromer and Sheringham relate to place, particularly paying attention to how some of the material aspects of the towns shape people's collective notions of place.

In both towns, many of the places people valued, identified through open questions, included everyday places around the town and iconic places along the seafront. Cromer was mostly identified by visitors and residents as a Victorian 'old-fashioned' seaside town, particularly in relation to some of its iconic features such as the pier, the promenade, and some of the hotels and houses which would have been built to host visitors in the late 1800s to early 1900s. It was also associated with crab fishing and in particular its 'Cromer Crab'. Similarly, Sheringham was considered to have an 'old fashioned character', being firstly identified through





**Fig. 3.2** Conceptual representation of how the material, relational and subjective dimensions of wellbeing can contribute towards shaping place identity and values in Cromer

its seafront and beach and secondly as a town with independent shops, a particularly important part of the town's recent identity. This may be due to the design of the town. Sheringham's high street is particularly prominent compared to Cromer's and it is a focal point in the town. The fact that the word 'community' was mentioned in the word association question in Sheringham relatively frequently may also be linked to this.

During the postcard exercise (Fig. 3.3), respondents in Cromer identified with images of the pier and the Hotel de Paris and the crab industry – all of which relate to the growth of Cromer during Victorian times when holidaymakers would have visited by rail – reinforce ideas of stability, continuity and the absence of change. In terms of the kind of place Cromer was to live in, many people compared the town to other places where there is not much for young people to do, and places that attract families and the elderly. Cromer residents and visitors generally described it as 'not that wealthy', a 'real place' that 'does not make a splash' and that has not changed. Generally, residents and visitors did not want to see it become more upmarket as other Norfolk coastal towns have. Cromer was discussed by residents and visitors in generally positive terms, which tends to indicate a high level of place attachment. It was described as a friendly, family place, which was cheerful and fun; laid-back, quiet, sedate; quaint, beautiful, pretty or picturesque, safe and traditional or old fashioned (Fig. 3.2, Table 3.1).

**Table 3.1** Summary of responses to questions asking respondents to think of places they enjoyed being in within the town and asking for words they associate with the town. These have been split into particular places mentioned and descriptive words used

Cromer		Sheringham						
Particular places people enjoy being in within the town	Words which come into mind when thinking of the town	Particular places people enjoy being in within the town	Words which come into mind when thinking of the town					
<i>Beach (47)</i>	<u>Descriptive:</u>	<i>Beach (22)</i>	<u>Descriptive</u>					
<i>Pier (41)</i>	<i>Friendly, welcoming (25),</i>	<i>Seafront (18)</i>	<i>Friendly (23),</i>					
<i>Seafront, promenade (24)</i>	<i>Quiet, laid-back, relaxing, calming, peaceful, slow (24);</i>	<i>Shops (15)</i>	<i>Quiet, peaceful, relaxed, tranquil (17),</i>					
		<i>Steam railway station (15)</i>	<i>Quaint, cute, nice, pleasant, beautiful, pretty (15)</i>					
Local pubs (20)	<i>Crab(s) fishing (18),</i>	Town (8)	Safe, easy, convenient, comfortable (10)					
Home, flat (17)	Tourists, holidaymakers, holidays, seasonal (15)	Pubs (7)	Traditional, old (10)					
Cafes (12)		Theatre (7)	Community (9)					
Shops (10)	Cheerful, enjoyable, fun, happy, vibrant,							
Church (9)		colourful (12);	Home (7)	Tourists, holidays, Tourism (9)				
Cliffs or cliff top walk (7)	Cliff (5)		Retired, elderly (7)					
Lighthouse (7)		Quaint, beautiful, pretty or picturesque (13),		Sheringham park (5)	Busy and noisy (7)			
Cinema (5)	Nice, lovely (11),		Workplace (5)			Independent, individual, unique (6)		
	Steady, traditional, old fashioned, consistent, timeless (11),	<u>Places</u>						
	Family (9),		<i>Seafront (10)</i>					
	Busy, hustle and bustle, overcrowded (8);			<i>Beach (9)</i>				
	Safe (7), small, little (7)				<i>Shops (9)</i>			
	<u>Places</u>					<i>Town (9)</i>		
	<i>The pier (21),</i>						<i>Steam railway train (8)</i>	
	<i>The beach (19),</i>							<i>Home (4)</i>
	<i>Town (12)</i>							
	Seaside, seafront, promenade (12)							
	Church (8)							
	Home (6)							
Shops (6)								

The top three answers are shown in italics for each question. Groupings of words used in different categories were carried out by the author

### ***3.3.1 Physical and Temporal Constructions of Place***

Natural physical features, such as the long sandy beach and cliffs, have an important role in shaping people's relationships to place (Stedman 2003). The pier, promenade and clifftop walk were frequently mentioned in questionnaires and allow both residents and visitors to experience the coastal environment. The presence of cliffs, a pier, a beach but the absence of a quay were what distinguished Cromer and Sheringham most from other places along the coast. The built environment and the structure of a place can shape place identity by influencing how people can interact with each other. For example, in many coastal places, the presence of a harbour is the focal point of a town (Williams 2014) where fishing activity can be readily observed at different times of day.

The appearance of places constantly changes, for instance during a single day, over a week, and between seasons. However, in many coastal locations an additional factor is the importance of the tide. The temporal rhythms of water ebbing and flowing adds a dynamic dimension to the construction of place identity. The identity and function of Cromer beach rapidly change throughout the day. I often observed how fishermen and holiday-makers co-exist albeit at different times of day. At sunrise, the beach was often completely still and calm apart from the sound of rolling waves and the sound of a few fishermen quietly greeting each other before getting themselves ready for sea. The tractors would start up one by one, releasing a cloud of smoke up against the changing sky. Once the boats have headed out to sea, only their tractors and trailers are left sprawled across the beach. As the boats come in, visitors and locals watch with interest. By midday, fishermen have long landed their catch and left the beach, and holiday makers can be seen making use of the shade afforded by the boats for a picnic or using a bucket as a stool for dusting the sand off their feet. The seasonality that tourism brings in the summer with the influx of visitors influences how residents relate to their town. Notably, residents spoke about taking long walks on the beach in the winter time rather than the summer. Cromer being a quiet, relaxing place in the winter was often contrasted with the busy summer tourist season. In particular, the proportion of second homes in North Norfolk (ranked 5th highest nationally in 2011 according to ONS (2011b) Census Data) means that at some times of year, the town is very quiet.

One of the characteristics of Cromer mentioned by residents and visitors is that it is considered 'timeless'. Several respondents said it would have looked similar several decades ago and they did not expect it to change in the future. There was a sense of Cromer changing day to day, following a natural rhythm but the place or the essence of it remaining constant. I return to how people perceived change in Sect. 3.5.3. Next, the constructions of place meanings related to fishing are explored.

### 3.3.2 *Materially and Socially Constructed Fishing Identity*

Meanings and understandings of the fishery were socially constructed by residents and visitors through their experiences in places such as the beach where the boats launch from or walking along the seafront observing other signs of fishing activity. However, these were also influenced by the physical environment and material signs of fishing in the town. For instance, five fish shops were run by fishermen in Cromer and three in Sheringham, at least one of which had existed for over 100 years. Even those respondents who did not eat seafood were familiar with local seafood shops and could name them. Local residents in Cromer had a marginally higher awareness of the fishing industry than in Sheringham in terms of knowing where to buy local seafood (95% versus 85%) and in having seen fishing boats active (92% versus 74%) (Table 3.1). However, as Jim, one of the retired fishermen reflected, it is more difficult for the general public to look inside the crab boats today because of their shape and position on the beach:

Years ago when I was a boy, the boat [...] wasn't on a trailer... If you stood against it you could look into it because the boat was lower. People used to come and ask about this and that. They watched you pack [the crabs] into baskets in those days... They were really like flies around a jam jar! When you wanted to get out of the crab boat you had to ask them to get out the way because they didn't want to miss nothing! But today that isn't so easy for them to see into the boat... so they stand on the prom[enade]. More people look in the truck than the boat today!

While this quote suggests that people have always been intrigued by the fishermen coming ashore, sometimes getting in their way; people now tend to observe fishermen from a distance and have less interaction with them.

In addition to experiencing and observing fishing activity today, the heritage associated with fishing in Cromer and Sheringham is to likely contribute to a local fishing identity. As work by Song (this volume), Nadel Klein (2000) in Scotland or Brookfield et al. (2005) in England have found, museums or local events celebrating fishing heritage can enable a fishing identity to persist after a fishing industry declines or ceases. In Cromer and Sheringham, the locations from which the boats go out are also the sites for fishing or lifeboat heritage museums. In Sheringham, a mural along the seafront was found retracing the history of the fishing community in Sheringham (Fig. 3.4). In Cromer, the symbol of crab linked to the town was used more actively than in Sheringham, for instance as the symbol for the Chamber of Commerce, by small businesses such as cafes as well as in political campaigns (see Fig. 3.5).

When respondents in Cromer were presented with postcards of the town and asked to select the image which was most representative of the town, the picture depicting crab boats (out of 16 images) was chosen the most frequently (Fig. 3.3). However, fishing boats did not immediately come to residents and visitor's minds when I initially asked open questions about particular places they enjoyed being in. In these cases, other places in the town may have had more significance at an individual, personal level including the beach, the pier or the shops where people



**Fig. 3.3** Top three cards selected by residents and visitors of Cromer and of Sheringham as the most representative of the place by all participants. Cromer – From left to right: local crab boats with the old lifeboat house behind, the nearby cafes and Victorian architecture along the gangway (residents, n = 21; visitors, n = 11); the beach in the winter, with few visitors (total = 29) the pier and the arcades over the summer (total = 20). Sheringham: the beach in the autumn, the crab boats on the slipway with the lifeboat and fisherman’s heritage museum; the high street in the summer leading down to the beach

tend to socialise and meet others. However, in another open question seeking free word associations with the town, ‘crab’ and ‘crab fishing’ were frequently mentioned (after friendly and quiet place, with a pier and beach) (Table 3.1). This indicates that crab has become symbolic of Cromer and perhaps in some cases synonymous with it. The meanings associated with the presence of fishing boats seemed to be an important part of a collectively constructed place identity rather than a personally constructed one. Two female residents in their sixties said: “Cromer is crab”, and that the fishery “gives Cromer an identity” and is the “backbone of Cromer” (CR08, CR20). This highlights the tradition and local culture that fishing represents which is “steeped in history because of the crab trade” (CV62). However, some residents raised concerns over the absence of young people entering the fishery and that the fishermen are not making a good enough living. In Cromer, some residents and visitors thought that although fishing was in decline it would survive in the future (n = 6, 8%). One Cromer resident, commented “It’s a dying occupation but, there will probably still be a crab fishery even if is just artificial. Hopefully any changes will not affect the essence of the ‘small fishing town’ of Cromer” (CR, 12).

In Sheringham, residents and visitors had similar impressions but more commented that most of the fishermen had retired, comparing it to Cromer where the industry is perceived as larger (25% of responses). Perhaps this reflected the greater decline in fishing that has occurred in Sheringham. Many also commented on the



**Fig. 3.4** Representations of fishing in Sheringham. From left to right: from the fishermen’s heritage centre at the top of the slipway, (*top right*) recent mural representing fishing history and the youngest crab fisherman in 2010, (*bottom right*) art trail commissioned by Sheringham in 2004 (Photos by author, 2013)

heritage associated with the fishery “What’s left of it is a reminder of history.” (SR06). In Sheringham, the card of crab boats was frequently selected, as in Cromer. However, it was selected second after the beach image and before the card of the high street (Fig. 3.3) and no words linked to crab or fishing were brought up by respondents in the free word association question. This suggests that while in Sheringham the town’s fishing identity and heritage was still important, people did not tend to associate Sheringham as freely with fishing as they did in Cromer. Interestingly, there was a comparatively greater amount of commissioned artwork in Sheringham representing its fishing history (Fig. 3.4) than in Cromer, which may help to retain some level of fishing identity despite its less active fishing activity. However, while representations of fishing can offer some indication of the relationship between place and fishing, it does not tell us about how people in these towns value or relate to fishing.

### 3.3.3 *Perceived Contributions from Fishing to the Town*

While the awareness of the local fishing industry was relatively high, particularly among Cromer residents, the way in which different residents and visitors valued this activity was more nuanced. When asking residents and visitors about their

perceptions of the local fishing industry it emerged that fishing was perceived to be a traditional and cultural activity that had not changed (mentioned by a third of respondents). A male resident, aged 40–44 who had lived in Cromer for over 21 years, described the fishery as “small, strong, traditional, sustainable” (CR14) while a female resident, aged 45–49 who had also lived in Cromer most of her life, commented that fishermen “use tractors, mostly old things, even with all the technology we have. Things change, but not the essence of it. It is still local” (CR24).

Another third of respondents, mentioned the fisheries’ role in the local economy. For instance, a 20–24-year-old female who visited Cromer from Norwich on a weekly basis said “It’s a big deal in Cromer, a source of pride and income for the town” (CV72). Tourism was often attributed to the presence of the fishery saying it ‘draws people in’ and that Cromer crab was well known around the country. Another resident said “it’s what makes Cromer traditional, it’s part of its charm (CR24)”. Visitors also expressed hope that the fishery would survive, including a retired male second home owner, who said that it was “Important to keep it up and hopefully it is passed on. It’s part of Cromer. It’s a distinct feature” (CV42). The fishermen were also aware of the role they play in the town’s ‘traditional’ identity and its role in tourism. “*We are the traditional side* and the tourist attraction. A major reason why people come to the Norfolk coast.” stated Jim from Cromer. The link between fishing and tourism dates back to when the development of the railways (Stibbons et al. 1983) which opened the town to visitors and to trade routes with London. Helen, 65 said:

Cromer has developed through the fishing but also through the visitors who came to see the fishing and the fishing has continued because of the visitors. So there is a lot of interaction. People do come down to look at the boats....they sit in the cafe and watch a fisherman.

Stan, a 48 year old fisherman, also agreed and emphasised how fishing continues to contribute to the local economy:

People come here and they have to have a Cromer crab, a baguette or a salad or something. These boats bring a lot of money into this town. Just from my boat, the shop employs three people full time and several part time. And there’s a knock on effect to all the restaurants and cafes. Especially now that people are more aware of where their food comes from. It’s a major product supplied here.

Unfortunately, there are no official figures or studies that have been carried out to date to value the contribution of fishing to the local economy, which is primarily for a local market within the East of England. In addition to its role in the local economy, residents and visitors expressed how essential the fishery was culturally to Cromer. However, despite the ways in which the crab fishery is valued by visitors and residents, I came across several telling examples of contestation over place identity between different groups, which are discussed in Sects. 3.4 and 3.5.

### 3.4 Relationally, Materially and Subjectively Constructed Fishing Identity: Fishermen and Coastal Community

Having discussed some of the collectively held notions of place and their construction, this section explores the relationships between fishermen and visitors or residents; and between fishermen and local government. These relationships are key in shaping how fishing is perceived in Sheringham and Cromer and the extent to which it is part of the town's identity.

#### 3.4.1 *Interactions Between Fishermen and Visitors or Residents*

Fishermen were often admired and perceived to be “traditional, local people, working hard for the benefit of others” (CR31, female, 60–64 years old) “good guys making a living” (CR05, male, 30–34 years old), running businesses which were passed down through their families (CR34, female, 40–44 years old). However, others alluded to conflicts between fishermen and other resource users such as surfers, saying ‘they [fishermen] think they own the ocean’. When the fishermen talked about tourists, they often expressed some irritation despite recognising their importance as customers. Often fishermen expressed this with humour reflecting the mixed interactions fishermen had with the public. My own first experience of coming down to the beach when the boats were returning from sea was one of feeling like an outsider. Not knowing where to stand or how to start a conversation, I was worried about getting in the way. As I became used to seeing the boats coming in, and got to know some of the fishermen, they would greet me as they did with many others who regularly waited on the prom for the boats to come back. People would stand around chatting to the fishermen as they unloaded their boxes. Other convivial behaviour could also be observed in the two beachside cafes in Cromer where several of the fishermen were in the habit of having a cup of tea or snack after they returned from sea.

On the other hand, fishermen joked about being like zoo animals being observed by the tourists and made fun at some of the ‘silly’ questions they had been asked. For instance, Rick said: “You get people from London coming down... they see a lobster and they ask you what that is and why isn't it red and things like that.” Fishermen would either ignore the onlookers, respond with a joke or in some cases be quite blunt. I was once talking to a fisherman in Cromer when a woman came up and interrupted us to ask ‘Did you get those this morning?’ ‘Well, I didn't get them overnight, did I? Think about it!’ he snapped. I later found out that she had asked about going on a boat for a fishing trip. ‘I doubt anyone will take her. Silly woman’, he said.

The interactions between fishermen and the public were therefore very mixed. In some cases, fishermen wanted to get on with their work and not feel obliged to interact with people who they perceived as having little understanding of what they



do. At the same time, the fishermen take pride in the interest people have in what they do. Tom who sells his crab directly to customers from a public stall said:

I really enjoy it. I get to know them and they get to know you. They trust what you say because they are buying from a fisherman. You make sure what you sell them is good product. The interaction between you and the customer is very important.

As other studies have found (e.g. Urquhart and Acott 2014), visitors and locals often value their local fisheries, the experience of watching the boats coming in and eating locally caught seafood, which also contributes to sense of place. However, less reported, at least in the literature, are the stories of visitors or residents who do not share these values and complain about the boats being smelly, noisy, looking messy. Cromer fisherman Will told me this story, which was common along the coast:

People come here and love it. All the trammel nets on the beach. And they buy a holiday house overlooking the beach. But when the boats start up at 2am, they say "Ah we ought to ban that. Get rid of it!" Wells had it too. All these people from London bought up places on the quayside, and they want to do a cull on the seagulls! It's the same here. They say how idyllic it is with the boats and the tractors. Then, they complained to the District Council and measured the decibels and all that. But the fishermen have rights on some beaches, going back to the Domesday book or whatever. If you take the boats away, Cromer is no more. Cromer is about crabs and fishing. If you sent the boats all away to Lowestoft, Cromer wouldn't be Cromer anymore.

Newcomers in Cromer may value a different kind of place and identify the same place fishermen consider their workplace as a peaceful and idyllic. Limits on the noise from the tractors the fishermen use on the beach, started to be discussed after a Cromer councillor (who was not from the town) proposed measures some years ago. The outcry from the fishermen and local community was such that he resigned. As Will noted there have been issues over who has a claim over the beach and its use. This shows how a changing population can alter what a place represents and how place meanings can be contested, resulting in place protective behaviour.

As I mentioned briefly earlier (Sect. 3.3.1), one of the main words that residents associated with Sheringham was 'community'. A sense of community was very important to many of the fishermen and local residents. One of the older fishermen, Donald, now 74 and originally from Sheringham, talked about the fishing industry by explaining how the nature of the local 'community' has also changed in Sheringham:

What we had in my early days, was community. They didn't have a lot, life was hard, but they had community. That's what we haven't got today. [...] A lot of what's happened in a lot of the villages, and you may or may not have realised it, do you know what I'm saying? In recent years, all these Londoners have bought up all these second homes, pushed our own people out. They can't afford them. That's broke a lot of communities very quickly.

This and other similar quotes reflected a perceived loss of community spirit which Donald links to the decline of the fishing community. In the past, the resident community would have been made up to a greater extent by fishermen and the local economy would have been more insular. Where property prices have increased in Cromer and coastal towns in North Norfolk, fishermen have moved away from

where they fish. Going back several decades, fishermen would have lived where they worked and socialised together in local pubs. Looking through the Stibbons et al. (1983) book which traces back the history of this fishery, relatively few fishermen's family names can still be found among present day fishermen indicating that many of those who would be considered from traditional fishing families have left the fishery. As Alan, 62, reflected:

Years ago, Cromer was all to do with the fishing. We used to know most of the people. People were connected with the local trade but now people come from away. Before that it was local people. And the money seemed to stay in the town, you'd spend your money and that never move. It would go around! But it's changed altogether.

One of the main issues (as the first quote in this section alludes to) is the increasing number of second homes in Cromer. According to the 2011 census, there were 7939 second homes in North Norfolk; 78 per 1000 residents, 48 of whom used their 2nd home for holiday purposes (ONS 2011a; The Guardian 2012). As Bob told me:

There's a lot of second homes in Cromer now and obviously a lot of people just come down here for the summer holidays, Easter and perhaps Christmas and they'll walk along the cliff top and along the promenade but they haven't got a clue about the industries sitting on the beach, well the majority of them anyway. Perhaps they should be drawn into the community a bit more. I don't like to see all these second homes sitting about. You walk through Cromer during the winter time and so many houses are shuttered up and the curtains are drawn and you know there's no lights on, there's no one in them. All painted up spick and span whereas years ago local people perhaps didn't have the money to perhaps keep their houses painted up, you know that's how I look at it anyway.

This last quote not only shows how the place could change between seasons but also reflects a wealth divide between those buying second homes and the local residents who have lived in Cromer for generations. This was also exemplified through only one of nine fishermen's cottages in Cromer still belonging to a fishing family, which is used as a crab shop. Another fisherman (Tim, 48 in the nearby village of Overstrand) had similar reflections:

When I was a boy up on the playing field here, there was kids everywhere, you know in the evenings playing football and you go on there now, and there's no one. But that's what's ruined it, that is. They're all second homes, people just come along with loads of money and buy them as holiday homes. The village is desolate in the winter.

The loss of community and replacement of 'local people' with 'newcomers' was discussed as having an impact on place meanings, as the examples show. The same trend exists in surrounding villages and reported in other regions such as Cornwall (Martindale 2014).

### ***3.4.2 Tensions Between Fishermen and the Local Government***

Other tensions were exposed between the local government and fishermen. When I asked one of the Cromer fishermen whether there was somewhere to keep fishing gear on the beach, David, 55, answered:

Well it is like all these things... The council tell you, you can't do this and that but when you've been there for a while they have a job to move you on. There was an issue about parking, and the boats and all that stuff. But we can go back in history in the town and there have always been boats there, perhaps grandfather rights or whatever but they would have a job to stop you and I know the townfolk would back you.

Carl felt that the crab fishery was not sufficiently recognized by local government. He said:

They aren't local people and they don't see the value of a dozen boats on the beach. [...] What would bring more people here would be more fishing gear about here, being made here. Stuff they can look at. They can watch you stitching a pot, cutting ropes, coiling ropes, making dans.<sup>6</sup> All the sorts of things fishermen do but they do it hid up in sheds miles away. If we had somewhere we could do it down here, we would, wouldn't we?

In Overstrand, near to Cromer, Tim explained how the fishermen had been at risk of losing what is known as the 'Fishermen's Green', where boats are kept.

You get like the council, now I don't think they're local, you know what I call a local, they live in the village yeh but they aren't. I call people locals that have been here all their lives. And they've been trying to get you know where the boats are on that green, they've been trying for years to get that off us, off the fishermen.

Implicit in the last two quotes is a sense of having to actively maintain claims over the places fishermen work from, to make sure that their identity which serves to maintain continuity in their activity is not subsumed by another. There are no facilities explicitly for fishermen at Cromer such as a fishermen's shed to store equipment, work from or socialize. In Sheringham, where the fisherman's shed is now a heritage centre, one of the retired fishermen told me how he wishes he would have recorded some of the banter that took place there, which are now just memories. These places are important for interacting with others, for particular practices to occur in and to indicate to others that this is their place of work (Proshansky et al. 1983). The quotes show that fishermen are feeling that their right to occupy and use places they fish from has been questioned. Place not only has a material and political valence, but can be used to claim use of resources attached to place, through identifying with place or presenting a particular social identity (Massey 1994; Manzo 2005).

### 3.5 A Threatened Identity? Resistance to Change

The social and demographic changes discussed in the previous section have led fishermen to feel marginalised and that their sense of belonging to the places they fish from is being eroded. I now discuss some of the external drivers of change at work before considering how local people, visitors and fishermen perceive and deal with the idea of change.

---

<sup>6</sup>Local word for a small buoy used as a marker at sea. Abbreviation of 'dan buoy'.

### 3.5.1 *External Influences on Coastal Development*

There was a sense that the tradition of crab fishing and the identity it gave to the town was threatened. Many perceived that the relocation of a local factory, following a takeover by the multi-national Young's, to Grimsby in the North of England in 2012, meant the fishery must be struggling. Several commented that multi-nationals threaten small industries and wondered whether the crab would be re-named 'Grimsby crab' reflecting some of the feeling towards increasingly globalized markets and a loss of local identity. However, one of the fishermen told me "Most people thought that when the Cromer crab factory shut down that was the end of the Cromer crab" and that his customers had asked him: 'Where are you going to sell your crab now?' to which he responded, "Well, same place as before! They [the factory] hadn't been buying crab off the fishermen for years!" The misconception of the importance of this factory to the local economy and to the fishermen may have been partly due to exposure from a political party the factory closure as a campaigning opportunity (see Fig. 3.5). This shows how place meanings can be used by different actors for their own ends and how media influences public perception. A female resident who retired to Cromer 15–20 years ago said "They need support or we will lose local fishermen, it's their livelihood. We need to buy their crab" (CR08), indicating that local residents have a sense that this activity and what it represents is under threat and it needs to be defended by the town.

Many changes that have occurred and seem to be altering the link between fishing and place, or are threatening to do so, are outside of people's control. For instance, to some extent the wind energy sector is replacing fishing at a regional level with the largest ports, Lowestoft and Great Yarmouth being converted into offices and facilities for wind farm boats and helicopters. In Sheringham, a number of ex- and part-time fishermen work on wind farm boats for Sheringham Shoal, completed in (2012), which can be seen on a clear day from the shore. In the Sheringham lifeboat and fishing museum, a room upstairs offers a view point of the windfarm and a poster titled "Offshore wind heralds a new era" boldly states: "The same strong winds that once pushed the sails of fishing boats, now push the blades of wind turbines to generate electricity" (Fig. 3.6).

### 3.5.2 *Competing Interests, Activities and Values*

Another example, which shows the perceived importance of preserving Cromer's fishing identity, manifested itself through arguments over boundaries between the fishermen and other resource users including divers, surfers and dog walkers. There were many examples of the kind of activities and behaviours that were acceptable around their boats. Fishermen frequently mentioned the 'dog walkers' saying 'It's not the dogs I have a problem with, it's their owners!' (Nick, 54). It seems common for fishermen to find dog fouling has gone on just beside their boat. Although some



**Fig. 3.5** From left to right, top to bottom: a poster of the annual crab and lobster festival, village signs representing crab and fishing; crab used as a symbol and in a political campaign in 2012 to stop the relocation of a processing factory; and for the Chamber of Commerce; a café using crab to attract customers, chocolate crabs and smiley crabs sold in the town; a crab wall painting in a car park; one of the local fishermen selling crab from a stall in the town (Photos by author, 2013)

of the fishermen told me ‘no-one owns the ocean’, they are constantly having to reassert this place as theirs and as a working fishing beach. Another example is the surf school that was set up in 2007. Even though the area has been known as a surf spot since the 1970s (a memorial to ‘lost at sea’ surfers can be found at East Runton, the next village along from Cromer), surfing is perceived as a relatively new activity. Surfers try to catch waves in the part of the beach where fishing boats may come back in to, creating safety issues of surfers being hit by a boat. Other tensions are indicated by a petition over the use of bicycles on the seafront (Eastern Daily Press 2013a) and a 30-year campaign for the development of a skate park (Eastern Daily Press 2015). This and other contestations over the use of the beach and seafront, indicate differences in how Cromer is perceived between those who wish to preserve a traditional seaside Victorian town (e.g. Cromer Preservation Society) and those who wish to see it develop as a place for young people.



**Fig. 3.6** Poster from exhibition on offshore windfarms at a museum in Sheringham, the Mo, which presents the history of fishermen and lifeboats in the town (Photo by author 2013)

Over the last few years, an increased number of divers have been attracted to the area following the work of an NGO, SeaSearch, which led to several TV programmes including one called “Britain’s Great Reef” on BBC, claiming it was the longest chalk reef in Europe. It was claimed that this habitat – now described by Natural England as a chalk bed rather than a reef – was being damaged by crab pots and needed protection (BBC News 2011). However, fishermen argue that they have traditionally fished the chalk bed for generations and that their methods are environmentally responsible. A recent study by Marine Planning Consultants (MPC), commissioned by the EU funded Fisheries Local Action Group to assess the potential impacts of fishing gear on habitats of conservation interest, was inconclusive citing significant gaps in understanding (MPC 2015). The fishermen have publicly opposed the ‘Cromer Shoal Chalk Beds’ Marine Conservation Zone (officially designated in January 2016) with much support from local residents, as they fear regulation could be introduced in the future to stop them fishing on the chalk bed.

The examples given here demonstrate that the fishing identity of Cromer and Sheringham is being constantly negotiated, between newcomers and locals, between fishermen and local government or with other coastal resource users. The continuity of fishing as one part of the identity of place is tested and contested and is actively maintained by those who value it.

### 3.5.3 *Moving Forward or Standing Still?*

As briefly mentioned in 3.1, imagining change was difficult for most residents and visitors. The majority of Cromer respondents (64%,  $n = 74$ ) expressed the belief that nothing would change much over the next 10 years. The permanent nature of the Victorian buildings and the pier were often used to illustrate this point with the only conceivable change being some restoration work (36% of respondents). Some commented that 10 years was not a long time for Norfolk, that nothing much had changed in the past decade and they hoped that nothing would change in the future. The coastline was expected by some to change due to coastal erosion and sea level rise (14%) although a couple of respondents also used the beach to illustrate permanence and stability. This is interesting because Cromer could arguably be considered to have undergone significant change over the last few decades. The pier, which many could not imagine Cromer without has had to be restored several times. Some of the beaches have changed following erosion and storm surges. The fishing boats have changed in terms of their appearance and construction over the last one to two decades from large wooden crab boats to small fibreglass boats and a modern catamaran (Fig. 3.7). Despite this, those I spoke to, including the fishermen, considered that in essence nothing had changed.

A third of respondents commented on social change and Cromer's population (32%) remarking that "Cromer people are set in their ways, don't like improvements" (CR08, female, 60–64 years old) and expressed concern that this could stop progress: 'There's always resistance, people don't change. I worry of the result. Life is not about standing still'. (CR21 male, 30–34 years old). There was some suggestion that Cromer was an aging town (8% of respondents), "There are 4 or 5 cemeteries, 7 retirement homes. This is where people come to retire." (CR28 female, 20–24 years old) "Everything tends to need to fit in. Youth is ignored – not to be seen or heard." (CR24, female, 45–49 years old).

This indicates a resistance or reluctance towards change. However, perhaps the word 'change' itself is rather abstract. People have an imagination of the future based



**Fig. 3.7** Photo from 1960s and from 2011 showing the promenade, and the gangway where the boats are kept. Source: (a) Simplon Postcards. The passenger ship website. (b) Roy Childs/Alamy Stock Photo

on the past and think about it in concrete, material terms. Particularly for regular and returning visitors, there is something comforting about Cromer and Sheringham not changing, remaining timeless while other places around them are developing and changing quickly. One example of this is the ongoing battle these towns have been fighting against supermarkets establishing themselves. For instance, Sheringham resisted for 17 years the construction of a large supermarket, called Tesco's, in order to maintain its identity as a unique town filled with independent shops and businesses (Eastern Daily Press 2013b). In fact, fewer residents in Sheringham were as adamant as those in Cromer about there being no change in the town at all (10% of responses compared to 64% in Cromer). Concerns in Sheringham were expressed over the loss of independent shops (62%), which were a big part of the town's identity (See Sect. 3.1). A male resident aged 40–44 years said: "The town centre will change, no more independent shops. It will bring about a loss of independence. Tesco's will shut most things [and] take the money in a big truck!" (SR40). Another female resident aged 20–24 years commented "You see so many towns lose their identity" (SR34). Another resident and shop owner thought this would be resisted: "I don't think people would let it change- they won't let it lose its appeal – [that will be] a major factor of the town's survival" (SR36, male, 55–59 years old). A Sheringham resident (SR24, a 20–24 year old female) even linked a further decline in fishing boats directly to Tesco's. Cromer fisherman, Tom, also related the introduction of supermarkets to a homogenization of the identity of places: "It's getting like a lot of towns, too many supermarkets. No real people anymore." Person-place bonds are perceived as becoming eroded by processes linked to capitalism, globalisation and increased mobility, potentially leading to what Relph (1976) cautioned against: 'placelessness' and the threat this poses for communities as they lose their meanings and identities. This, as well as the example of the relocation of the crab processing factory, show how relationships to place are both stretching and shrinking (Scholte 2000; Perkins and Thorns (2012)). Increasingly, people feel left behind are increasingly aware of the connections that explain this, leaving them feeling powerless.

### 3.6 Conclusion

This chapter discusses how place meanings and identity are differently constructed by residents, visitors and fishermen within the same coastal town. As Acott and Urquhart suggest (this volume), an understanding of values can emerge by drawing together different narratives around sense of place and social wellbeing within a conceptual perspective of co-constructed relational associations. This begins to provide an enhanced way of understanding connections between subjective and material dimensions of well being that are temporally fluid and dynamic. The present chapter showed how the three dimensions of social wellbeing (material, subjective and relational) could be related to a place based perspective of different individuals and groups. Using a place lens adds focus to the social wellbeing approach, allowing attention to be paid to the dynamics and interactions between different people and a particular place, through a deeper consideration of its physical and social



context. Importantly, concepts from place research can help draw out how these dynamics play out over time and how the values of different individuals and groups are asserted or not. This connection between social wellbeing and place has important implications for governance and is discussed further in the book conclusion.

Both Cromer and Sheringham have a communally held fishing identity, to a lesser or greater extent – which is at least symbolically present alongside other features in the towns. In Cromer, the pier is an important and distinctive part of the town's identity, as is the symbol of crab, an activity which occupies an important presence in the town. In Sheringham, the main identity of the town, once also known for its fishing fleet, is now one that is in part characterized by independent shops rather than its crab fishermen. In both towns, the idea of maintaining a traditional and unique identity is contrasted with some of the processes which have been set in motion. There have been significant social and demographic changes in the local population including an increasing number of retirement or second homes and holiday lets, leading to a more dispersed local community. In addition, the increasing dominance of activities such as surfing or diving mean that Cromer's identity as a 'fishing place' is perceived by fishermen as being contested. Other trends such as the establishment of supermarkets in Sheringham or the development of offshore wind farms are perceived as a threat by local residents and fishermen. These are due to global or national influences which are largely outside the control of local stakeholders. Fishing, as one part of Cromer's identity, is having to be defended by the fishermen themselves and by local people who have an attachment to fishing.

While these broader changes are experienced, Cromer can be considered a place of stability and continuity where nothing much is perceived to have changed or is expected to change. Although Cromer and Sheringham change every day, and seasonally with tourism in the summer, overall, these places are considered to be stable and unchanged over the years. In particular, the pier, the beach and the crab fishery represent stability and tradition. The 'timeless' nature of Cromer is important to those who live here and valued by those who come to visit. I argue that the meanings associated with continuity of tradition, which are attributed to the Cromer crab fishery and other aspects of the town, are indicative of resilience as resistance. Rather than the fishery being valued for serving the local economy, it is mostly valued for what it represents: survival in the face of globalisation and economic development, symbolic of an independent way of life and a traditional identity. Similarly, resistance to globalisation is expressed over concerns that the arrival of a large supermarket in Sheringham will lead to a homogenisation of place and a loss of identity.

Some of the characteristics associated with Cromer – as a friendly, safe, quiet place – can encourage a high level of place attachment. Place attachment has been theorized to encourage collective action to adapt to change (Norris et al. 2008). However, the kind of characteristics associated with maintaining stability, can often lead to a resistance and contestation of change. Resistance has been discussed as being 'undesirable' in terms of resilience (Walker et al. 2004). However, resisting change may be pursued in order to maintain stability and in people's pursuit of wellbeing. As other studies show, a person's place identity can be strengthened as place meanings become contested and a process of maintaining and defending place ensues (Harner 2001). Those who sometimes seem the least attached about a place

can in fact be those who are the most rooted in place (Cochrane 1987). The identity of a place can be taken for granted, for instance by someone who has lived somewhere all their life. For instance, the values and meanings associated with fishing may only surface when people's personal or collective place identity is perceived as threatened (Relph 1976). For instance, Sheringham's 17-year battle against a large supermarket has reinforced community sentiment and its identity as a town of independent shops. Similarly in Cromer, campaigns brought people together to protest over the relocation of the local crab processing factory reinforced the idea of Cromer being identified with crab and the need to support its fishermen.

Because values can be hidden, the study of place meanings poses particular methodological challenges. Fishing may often be part of a collectively held identity of a town rather than an identity that individuals consider part of their personal relationship with place. This can explain why the crab fishery, its boats and their place on the beach were not mentioned in the 'places' people enjoyed being in, or considered personally important to respondents in Cromer or Sheringham. However, it was relatively frequent in words associated with Cromer and it was the most popular choice in the images people selected which represented their town, in both Cromer and Sheringham. So while people associate more personal experiences of place such as being on the beach, or going for a walk on the pier, the fishing boats and what they symbolise for the town is also important. This is a key point because it indicates how research into the meaning fishing has to individuals as part of the place's public identity could be missed depending on how questions are asked. Fishing should therefore be understood as part of a wider coastal identity among other types of identities and values that are associated with a place.

Finally, this evidence suggests that caution needs to be exercised when researching place meanings and identity. Clearly, as some of the examples presented show there are divergent meanings and values among groups of visitors and residents regarding the local fisheries, which have caused tensions to build up between people in the community. This raises questions about what people value about coastal places they visit and live in and the extent to which having active fishing boats is part of this or not. This then leads to questions which have significant implications for governance; who is part of the community and who should have a stake in the direction a particular place goes in. Coastal places such as Cromer and Sheringham have become increasingly populated by pensioners who retire to the coast and by second residences used only during the holidays. Some of those from the town – including some fishermen – have moved out due to the rising house prices and their relationship to the town is now as frequent visitors. There may be important differences over the values and place meanings between newly arrived residents and more established locals who have a longer history in the town. This highlights the importance of understanding the changing social differences within a place, and whose place meanings and whose values are privileged in decision-making processes. This is of particular relevance to those leading processes where decisions are being made about the future of coastal towns – around their adaptation and resilience – which will have important wellbeing implications for fishermen and local residents.

**Annex**

Composition of sample used for analysis from questionnaires in Cromer and Sheringham

	Cromer (74)				Sheringham (50)							
	Residents (40)	Visitors (34)	Residents (39)	Visitors (11)	Residents (39)	Visitors (11)	Residents (39)	Visitors (11)				
Period of time lived in or known place	< 2 year	6	15%	< 2 year	0	0%	< 2 year	3	8%	< 2 year	1	9%
	2-9 years	7	18%	2-9 years	4	12%	2-9 years	18	46%	2-9 years	0	0%
	10-20 years	11	28%	10-20 years	9	26%	10-20 years	10	26%	10-20 years	3	27%
	Over 21 years	16	40%	Over 21 years	21	62%	Over 21 years	8	21%	Over 21 years	7	64%
Level of visit frequency/knowledge of place	All my life	5	13%	3-6 times per year	11	32%	All my life	2	5%	3-6 times per year	1	9%
	Most of my life	12	30%	Once per week	4	12%	Most of my life	3	8%	Once per week	0	0%
Age	Part of my life	23	58%	daily or several times per week	19	56%	Part of my life	34	87%	Daily or several times per week	10	91%
	<19-29	7	18%	<19-29	11	28%	<19-29	5	13%	<19-29	3	27%
	30-39	5	13%	30-39	2	5%	30-39	3	8%	30-39	2	18%
	40-49	5	13%	40-49	3	8%	40-49	11	28%	40-49	2	18%
Gender	50-59	6	15%	50-54	10	25%	50-59	7	18%	50-54	2	18%
	60-64	8	20%	60-64	2	5%	60-64	9	23%	60-64	0	0%
	Over 65	9	23%	Over 65	6	15%	Over 65	4	10%	Over 65	2	18%
	Female	23	58%	Female	22	65%	Female	27	69%	Female	8	73%
Activities	Male	17	43%	Male	12	35%	Male	12	31%	Male	3	27%
	80% eat seafood, 95% know where to buy local seafood, 92% have seen the fishing boats active, 85% use the beach		80% eat it, 88% know where to buy local seafood, 82% have seen the fishing boats active, 94% use beach		77% eat seafood, 85% know where to buy local seafood, 74% have seen the fishing boats active, 77% use beach		73% eat seafood, 82% know where to buy local seafood, 64% have seen the fishing boats active, 91% use beach					

NB: categories have been aggregated from questionnaire

## References

- Adger NW, Barnett J, Brown K, Marshall N, O'Brien K (2012) Cultural dimensions of climate change impacts and adaptation. *Nat Clim Chang* 3(2):112–117
- Amundsen H (2013) Place attachment as a driver of adaptation in coastal communities in Northern Norway. *Local Environ* 20(3):1–20
- Armitage D, Béné C, Charles AT, Johnson D, Allison EH (2012) The interplay of well-being and resilience in applying a social-ecological perspective. *Ecol Soc* 17(4):15
- BBC News (2011) Chalk reef protection plan 'not enough', Hare, D. BBC News, 9 October 2011
- Brookfield K, Gray T, Hatchard J (2005) The concept of fisheries-dependent communities: a comparative analysis of four UK case studies: Shetland, Peterhead, North Shields and Lowestoft. *Fish Res* 72(1):55–69
- Cochrane T (1987) Place, people and folklore. *West Folk* 46(1):1–20
- Coulthard S (2012) Can we be both resilient and well, and what choices do people have? Incorporating agency into the resilience debate from a fisheries perspective. *Ecol Soc* 17(1):4
- Coulthard S, Johnson D, McGregor JA (2011) Poverty, sustainability and human wellbeing: a social wellbeing approach to the global fisheries crisis. *Glob Environ Chang* 21(2):453–463
- Devine-Wright P, Howes Y (2010) Disruption to place attachment and the protection of restorative environments: a wind energy case study. *J Environ Psychol* 30:271–280
- Eastern Daily Press (2013a) Sheringham Tesco construction starts - after 17-year wait. Downes, S. Eastern Daily Press, 21 May 2013
- Eastern Daily Press (2013b) Cromer promenade cycling and skating signs to be reviewed by council following petition. Wyllie, S. Eastern Daily Press, 19 July 2013
- Eastern Daily Press (2015) Hallelujah – after 30 years, Cromer has a skate park. Hurrell, A. Eastern Daily Press, 21 June 2015
- Eyles, Williams, (2008). *Sense of place, health and quality of life*. Ashgate Publishing, Ltd., Burlington
- Gough I, McGregor A (2007) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge
- Gustafson P (2001) Meanings of place: everyday experience and theoretical conceptualizations. *J Environ Psychol* 21(1):5–16
- Harner J (2001) Place identity and copper mining in Sonora, Mexico. *Ann Assoc Am Geogr* 91(4):660–680
- Hummon D (1992) Community attachment: local sentiment and sense of place. In: Altman I, Low SM (eds) *Place attachment*. Plenum Press, New York, pp 253–278
- Jacob S, Jepson M, Farmer FL (2005) What you see is not always what you get: Aspect dominance as a confounding factor in the determination of fishing dependent communities. *Hum Organ* 64(4):374–385
- Lewicka M (2011) Place attachment: how far have we come in the last 40 years? *J Environ Psychol* 31(3):207–230
- Low S, Altman I (1992) Introduction. In: Altman I, Low SM (eds) *Place attachment*. Plenum Press, New York, pp 1–12
- Manzo LC (2005) For better or worse: exploring multiple dimensions of place meaning. *J Environ Psychol* 25(1):67–86
- Marshall N, Park SE, Adger NW, Brown K, Howden SM (2012) Transformational capacity and the influence of place and identity. *Environ Res Lett* 7(3):1–9
- Martindale T (2014) Heritage, skills and livelihood: reconstruction and regeneration in a cornish fishing port. In: Urquhart J, Acott TG, Symes D, Zhao M (eds), *Social issues in sustainable fisheries management*. MARE Publication Series, Springer, pp. 279–300
- Massey D (1994) A global sense of place. In: *Space, place and gender*. Polity Press/Blackwell Publishers, Cambridge, pp 146–156

- McGregor JA (2008) Wellbeing, poverty and conflict. Wellbeing in Developing Countries Research Group Briefing Paper 01/08
- MPC (Marine Planning Consultants) (2015) The potential fisheries interactions with protected features on the North Norfolk Coast. May 2015. North Norfolk Fisheries Local Action Group. [http://www.northnorfolkflag.org.uk/downloads/294/Potential\\_Fisheries\\_Interactions\\_with\\_Protected\\_Features\\_on\\_the\\_NN\\_Coast\\_1.pdf](http://www.northnorfolkflag.org.uk/downloads/294/Potential_Fisheries_Interactions_with_Protected_Features_on_the_NN_Coast_1.pdf). Accessed 2 June 2015
- Nadel-Klein J (2000) Granny baited the lines: perpetual crisis and the changing role of women in Scottish fishing communities. *Women's Stud Int Forum* 23(3):363–372
- Norfolk Coast Partnership (2013) Raising awareness for second homeowners of how they can help to sustain local communities. December 2013. <http://www.norfolkcoastaonb.org.uk/mediaps/pdfuloads/pd002995.pdf>. Accessed 5 Nov 2014
- Norris FH, Stevens SP, Pfefferbaum B, Wyche KF, Pfefferbaum RL (2008) Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *Am J Community Psychol* 41(1–2):127–150
- ONS (Office of National Statistics) (2011a) 2011 national census data. [http://www.ons.gov.uk/ons/dcp171778\\_241497.pdf](http://www.ons.gov.uk/ons/dcp171778_241497.pdf). Accessed 2 Oct 2014
- ONS (Office of National Statistics) (2011b) 2011 annual survey of hours and earnings. [http://www.ons.gov.uk/ons/dcp171778\\_241497.pdf](http://www.ons.gov.uk/ons/dcp171778_241497.pdf). Accessed 2 Oct 2014
- Perkins H, Thorns DC (2012) Place, identity and everyday life in a globalizing world. Palgrave MacMillan, Basingstoke
- Proshansky HM, Fabian AK, Kaminoff R (1983) Place-identity: physical world socialisation of the self. *J Environ Psychol* 3:57–83
- Ralph E (1976) Place and placelessness. Pion Limited, London
- Rollero C, De Piccoli N (2010) Does place attachment affect social well-being? *Revue Europeene de Psychologie Appliquee* 60(4):233–238
- Ross N (2012) Exploring concepts of fisheries “dependency” and “community” in Scotland. *Mar Policy* 37(1):55–61
- Scholte JA (2000) Globalization: a critical introduction. Macmillan, London
- Stedman RC (2003) Is it really just a social construction? The contribution of the physical environment to sense of place. *Soc Nat Resour* 16(8):37–41
- Stibbons P, Lee K, Warren M (1983) Crabs and shannocks. The longshore fishermen of North Norfolk. Poppyland Publishing, Cromer
- The Guardian (2012) The second homes map of England and Wales. [http://www.theguardian.com/news/datablog/interactive/\(2012/oct/22/second-homes-england-walesmapped](http://www.theguardian.com/news/datablog/interactive/(2012/oct/22/second-homes-england-walesmapped). Accessed 10 Aug 2014
- Tidball K, Stedman R (2013) Positive dependency and virtuous cycles: from resource dependence to resilience in urban social-ecological systems. *Ecol Econ* 86:292–299
- Trentelman CK (2009) Place attachment and community attachment: a primer grounded in the lived experience of a community sociologist. *Soc Nat Resour* 22(3):191–210
- Trost J (1986) Statistically non-representative stratified sampling: a sampling technique for qualitative studies. *Qual Sociol* 9(1):54–57
- Tuan Y-F (1974) *Topophilia: a study of environmental perception, attitudes, and values*. Columbia University Press, New York
- Twigger-Ross CL, Uzzell DL (1996) Place and identity processes. *J Environ Psychol* 16(3):205–220
- Urquhart J, Acott T (2014) A sense of place in cultural ecosystem services: the case of sornish fishing communities. *Soc Nat Resour* 27(1):3–19
- Walker B, Holling CS, Carpenter SR, Kinzig A (2004) Resilience, adaptability and transformability in social-ecological systems. *Ecol Soc* 9(2):5
- White SC (2010) Analysing wellbeing: a framework for development practice. *Dev Pract* 20(2):158–172
- White C (2014) Structured interview tools: insights and issues from assessing wellbeing of fishermen adapting to change using scoring and ranking questions. SAGE Research Methods Cases

- White CS (2015) Getting into fishing: recruitment and social resilience in North Norfolk's 'Cromer Crab' fishery, UK. *Sociol Rural* 55(3):291–308
- Williams R (2014) The socio-cultural impact of industry restructuring: fishing identities in Northeast Scotland. In: Urquhart J, Acott TG, Symes D, Zhao M (eds) *Social issues in sustainable fisheries management*. MARE Publication Series, Springer, pp. 301–318

**Carole Sandrine White** is a Senior Research Associate affiliated to the Global Environmental Justice Group in the School for International Development, University of East Anglia. Her doctoral research explored the role of place and identity in social resilience through a study of livelihood responses to change in small-scale fisheries in Norfolk, England. She is continuing to build on this research; examining the implications of changing governance for these communities as the UK leaves the European Union. Other current research focuses on historical trajectories that shape exposure, disaster risk management and resilience in Small Island Developing States, in the Caribbean and Pacific.

## Chapter 4

# Adapting to Environmental Change Through the Lens of Social Wellbeing: Improvements and Trade-Offs Associated with a Small-Scale Fishery on the Atlantic Forest Coast of Brazil

Carlos Julián Idrobo

**Abstract** Small-scale coastal communities around the globe are dealing with environmental change associated with the fisheries crisis, integration with global markets and climate change. Understanding how coastal people adapt to these challenges is not only a theoretical but also a practical concern that relates to the continuity of ways of life associated with small-scale fishing practice and the sustainability of the natural resource base on which they depend. In this chapter, I examine how people from the small coastal community of Ponta Negra, located in the Juatinga Ecological Reserve on the Atlantic Forest Coast of Brazil, have experienced and responded to environmental change in their recent history. To do so, I employ the social wellbeing framework that provides a multidimensional lens to assess how people's current situations, as well as their desires and aspirations, shape and have been shaped by their relations with their environment. *Melhorar* (to improve), a common narrative, allows us to reflect upon how people in Ponta Negra negotiate the social, cultural and other trade-offs associated with livelihood transitions that reduce local reliance on the natural resource base and increase dependence on wage labour, out-migration and the growing regional tourism economy. The case of Ponta Negra highlights the challenges and opportunities small-scale fishers face in a changing world.

**Keywords** Wellbeing • Small-scale fisheries • Out-migration • Atlantic Forest Coast • Brazil • Caçara

---

C.J. Idrobo (✉)  
Interdisciplinary Centre for Development Studies, Universidad de los Andes,  
Bogotá, Colombia  
e-mail: [cj.idrobo@uniandes.edu.co](mailto:cj.idrobo@uniandes.edu.co)

## 4.1 Introduction

Coastal communities that depend on small-scale fisheries around the globe are dealing with environmental change associated with the fisheries crisis, integration with markets and climate change, among other drivers that threaten their way of life as well as their attachment to the places where they live (Thorpe and Bennett 2001; Defeo et al. 2013; Perry et al. 2011). In this chapter, I examine how people from the small coastal community of Ponta Negra, situated in the Atlantic Forest Coast of Brazil, have experienced, perceived and responded to environmental change in their recent history from the perspective of the establishment and development of their commercial small-scale fishery. Ponta Negra fishers, and community members in general, consider the commercial small-scale fishery to be associated with major improvements in their quality of life over recent decades. Employing a social well-being lens (McGregor 2007), I analyse how these improvements and associated trade-offs are reflected in the material, subjective and relational dimensions of human-environment relations in the Atlantic Forest Coast. This perspective accounts for how dynamic values are in the context of the fishery. Fishing, and the practices associated with it, has been influenced by changes in the recent history of the regional economy and the shifting landscape of opportunities associated with those changes. This history has shaped the positionality of people in relation to the fishery and to each other and it has shaped their desires and aspirations for their future.

Environmental change has been a constant in the history of the peoples from this region. The current rural inhabitants of this part of the world are an outcome of ongoing mixing among Portuguese, local indigenous groups and African slaves that began with the colonisation of Brazil in the 1500s (Dean 1996). Some scholars have identified the practice of shifting agriculture, hunting and subsistence fishing as defining features of these coastal rural people (Mussolini 1980; Begossi 2006). However, recent and more critical analyses of their past and present livelihoods have brought to light the high adaptability of these people to the booms and busts of regional commodity cycles (Adams 2003). Coastal people have been keen to take advantage of the booms of commodity cycles, such as sugar cane and coffee in the nineteenth century (Adams 2000), fishing in the twentieth and, more recently, tourism beginning in the 1990s (Idrobo and Davidson-Hunt 2012). Such periods have seen less reliance on natural resource harvesting and increased dependence on wage labour for income and markets for trade and provision of goods. Conversely, during the busts of the same commodity cycles, coastal people have shifted towards natural resource-based livelihoods for their nutritional and economic needs (Adams 2000).

The adaptations in response to the boom and bust of each economic cycle have come with improvements as well as trade-offs in the quality of life of coastal people. During the busts of the economic cycles before the twentieth century, people were able to go back to living off the harvest of natural resources available in the coastal zone (Adams 2003). The modernisation and exponential growth of the Brazilian industrial fishing fleet that has taken place since the 1950s has brought about a crisis that small-scale fishers have been experiencing since the 1990s (Diegues 2004). The



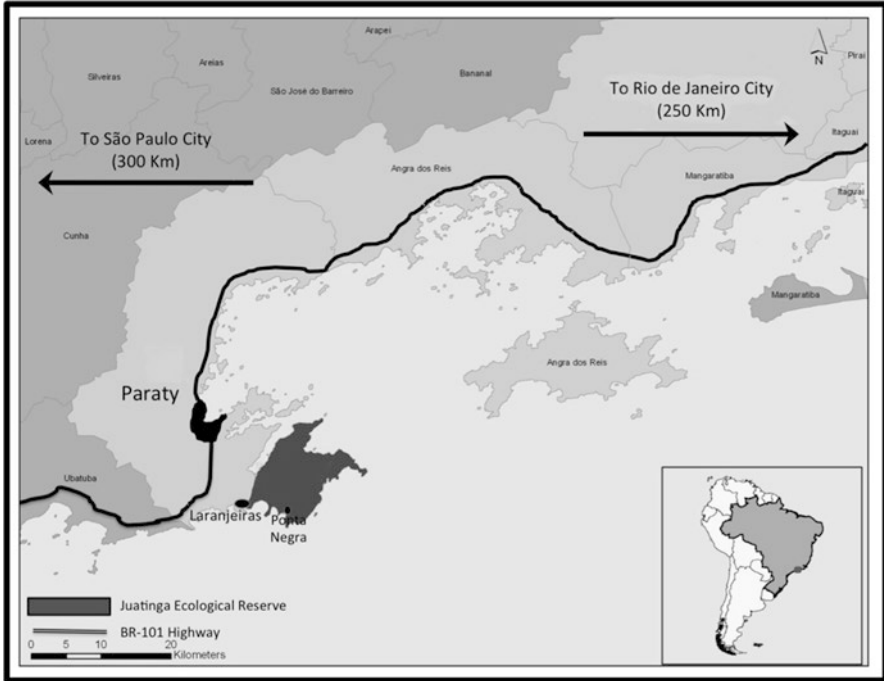
transition from the fishing economy to the boom in tourism, however, has been different. Tourism development and environmental legislation have pushed people away from the coastal zone and have limited the practice of natural-resource-based livelihood activities, including shifting agriculture (Idrobo et al. 2016). While the passage of time has shrouded coastal people's historical adaptations, this chapter provides an account of how Ponta Negrans have experienced the boom and bust of the local and regional fishing economy, their responses to the growth of tourism and how they relate such transitions to changes in their quality of life.

This chapter analyses the contribution of the small-scale fishery of Ponta Negra according to the social wellbeing framework. It describes the study area and research methods. Then it unpacks the social wellbeing framework by developing its objective, subjective and relational dimensions through an analysis of the improvements and the trade-offs associated with the adoption and development of the commercial, small-scale fishery in this community in the Atlantic Forest Coast of Brazil. It concludes with a synthesis of what we can gain from using a social wellbeing perspective to examine the ways by which small-scale fishers understand and adapt to change in their social-ecological environments.

## 4.2 Study Area and Methods

This chapter draws on research undertaken in Ponta Negra, a coastal community inside the Juatinga Ecological Reserve (*Reserva Ecológica da Juatinga* –REJ– in Portuguese), located in the municipality of Paraty, Rio de Janeiro State, Brazil (Fig. 4.1). The population of Ponta Negra was 164 people, with 82 adults (47 males; 35 females) and 82 children (40 males; 42 females) under 18 years of age, during the data collection phase of this research (May 2010 – March 2011). The REJ was designated in 1992 and, within the reserve, there are limited natural resource-related activities, such as shifting agriculture and hunting, and infrastructure development, especially related to the tourism sector (Idrobo et al. 2016). Basic services are noticeably absent or limited. There is a small school where children attend up to 4 years of primary education. In spite of the fact that the school has been in the community for more than 20 years, a large segment of the population is functionally illiterate. Furthermore, there is no electricity and the water system is comprised of a basic network of rubber hoses that take untreated water from the streams that cross the community. The only available fish storage facilities are shacks on the beach where the catches are preserved in Styrofoam coolers using ice sent from City of Paraty by fish buyers.

There is no direct road access and the most convenient way of reaching the community from Paraty, its closest urban centre, requires a 1 h trip by public transport and then crossing a gated community (i.e. *Condomínio Laranjeiras*), where a small harbour can be accessed. From Laranjeiras it takes 30 min to reach Ponta Negra using fibreglass skiffs powered with 15–25 HP outboard motors. The trip takes from 2 to 5 h in total, depending on the availability of transportation and weather



**Fig. 4.1** Ponta Negra and regional context

conditions. The security regulations in place around Laranjeiras have become a critical factor influencing the ability of people to move between Paraty and Ponta Negra. The security procedures can delay transit through the gated community significantly. The passage through Laranjeiras can be avoided by using a very rudimentary 8 km-long trail through the forest. However, it is impossible to travel this trail transporting goods (e.g., fish for trade) or any substantial amount of basic supplies for household consumption, especially during the rainy season when the trail turns slippery and treacherous. This turns a sandy beach with no pier or other infrastructure into Ponta Negra's only entrance for motorised vehicles and, hence, for the goods needed to run the fishery and sustain everyday life in the community (Fig. 4.2).

This chapter is based on ethnographic research conducted between May 2010 and March 2011 and July 2012 through participant observation, semi-structured interviews, a census (for details see Idrobo 2014) and an adaptation of the Wellbeing in Developing Countries toolkit for fishing communities (wellbeing toolkit, Coulthard et al. 2015). This selection of research methods was intended to gather data on the material, relational and subjective dimensions of the social wellbeing framework in its relation to changes in local livelihoods in the recent history of the community.

Participant observation took place through participation in the everyday life of the community, including marine and terrestrial harvesting activities. I kept track of



**Fig. 4.2** Fishers handling the day's catch

my participation by writing field notes and analysing them in a field journal. In order to understand the local livelihoods, I followed the flow of natural resources through their sites of appropriation, consumption, transformation and exchange as well as the flow of inputs, such as cash, store bought foods and equipment, as they entered the community (Davidson-Hunt et al. 2016). Participant observation was useful to identify key informants, to learn about the biological and ecological dimensions of the small-scale fishery and natural resource harvesting in general, and to understand the complex social and economic networks within which natural resource harvesting activities and their material outcomes are enmeshed.

A total of 36 semi-structured interviews with community members and relevant stakeholders provided complementary information about a variety of topics. While 19 interviews gathered additional information about general aspects of household livelihood portfolios, nine focused on the recent history of the community. Interviews with different stakeholders included three tourism entrepreneurs, two representatives of the environmental authority and the Fisheries Ministry, one local NGO leader and two fish buyers. The community households census at the end of the first field season (March 2011), which was conducted via a questionnaire survey, provided a general account of the livelihood portfolios in the community, highlighting the main and secondary productive activities, access and ownership to productive assets, household members living outside of the community and levels of education within the household. The census provided quantitative data that enriched the narratives and stories collected employing qualitative methods.

The wellbeing toolkit draws upon the social wellbeing framework and offers methods for gathering data on the material, relational and subjective dimensions of

wellbeing tailored to small-scale fisheries contexts (Coulthard et al. 2015). The wellbeing toolkit was used to evaluate quality of life and social relations of ten fishing households in the community. The quality of life assessment component looked at the aspects of life that people consider important for living well and estimated the satisfaction households have with each aspect. Looking for more nuanced narratives about quality of life, my adaptation of the toolkit asked specific questions about important moments in people's lives, hopes and aspirations for the future, whether parents wanted their children to continue in the fishery, what were the main changes that have been experienced in the recent history of the community, and how such changes have affected the research participants. The social relations assessment component asked each participant to identify the most important relations that influence small-scale fishing activities, explain why these relations are important, and indicate and explain their level of satisfaction with them.

### 4.3 A Brief History of Ponta Negra's Commercial Fishery

The commercial fishery has shaped the recent history of Ponta Negra and with it the perception of quality of life by its inhabitants. The establishment and development of this economic activity was the outcome of local integration into the regional fishing industry that began to grow over the course of the 1900s, which, in turn, changed relations with the environment in terms of how fish and other natural resources were harvested, consumed, exchanged and perceived. Working as crewmembers in industrial fishing fleets became an important livelihood activity in the community around the 1950s as the fishing fleets from São Paulo and Rio de Janeiro grew (Diegues 1983). However, it was the adoption of pound net fishing technology in the 1970s that transformed fishing into the most important livelihood activity in Ponta Negra (Idrobo and Davidson-Hunt 2012).

The pound net fishery structured the use of the local marine space as well as social relations framed in the exchange of marine resources both in the community and between the community and external markets. The pound net, or *cerco flutuante*, fishery is the most important fishery in Ponta Negra as it not only is currently the main local source of fish and income but also has shaped the local economy and the ways in which people interact with fish (Fig. 4.3; Idrobo and Davidson-Hunt 2012). The pound net is a stationary fishing gear of Japanese origin into which fish enter voluntarily, but are hampered from leaving (von Brandt 1972). Structurally, a pound net consists of a net leader anchored to the shore that directs mostly pelagic fish towards the basket-shaped entrapment area where fish circle until they are collected. The seven pound nets in Ponta Negra have net leaders that average 50 m in length, with 70 m diameter entrapment areas, and depths of 15 m. The pound net fishery operates throughout most of the year, captures the majority of fish consumed and traded in the community and provides a steady source of income for an average of 25 individuals. Other types of fishing performed by community members in the waters surrounding Ponta Negra include canoe hand line fishing, gillnetting, squid



**Fig. 4.3** Pound net crew collecting the catch

jigging, mullet seine fishing, and line fishing from the shore (Idrobo 2014). While some of these other techniques are seasonally important and can be lucrative, they do not compete with the pound nets in terms of overall catch volumes, regularity or employment capacity.

The location of the pound net fishing spots has been related to processes of social and economic differentiation within the community (Idrobo and Davidson-Hunt 2012). Some pound nets are better located and hence more productive than others. In this way, the limited number of productive spots is tied to the necessary distance between the nets, their position in relation to pelagic schooling fish movement patterns, and protection from bad weather events. Those pound nets located in more favourable spots have had more stable ownership and their users have been able to capitalise on this advantage by investing in other economic sectors. The other less lucrative and desirable pound nets have changed ownership over the years and have not provided equivalent livelihood opportunities. The pound net fishery has structured interactions with fish buyers and overall access to regional fish markets. Catches from the pound nets as well as from other fisheries, such as squid, are sold through the marketing channels opened and sustained by this fishery.

As has happened during other economic cycles in the region, the fishing economy, both at industrial and small scales, has begun to experience a bust. The ecosystem destruction caused by the expanding and unregulated industrial fishing sector (Diegues 1983, 2004) has caused the size and abundance of fish schools to decrease over the course of the last four decades. The declining quality and quantity of fish has become particularly evident since the 1990s and has rendered small-scale fishing unviable in many coastal communities, such as Ponta Negra. Today, commercial

small-scale fishing is an undesirable livelihood activity not only in Ponta Negra (Idrobo and Johnson [forthcoming](#)), but throughout the region (Trimble and Johnson 2013). Consequently, the relationships between wellbeing and the fishery in Ponta Negra are complex, but in spite of the current livelihood challenges posed by the struggling fishery, people in Ponta Negra closely link fishing activities with narratives of improvement in their quality of life and overall wellbeing.

#### 4.4 Using the Social Wellbeing Framework in Small-Scale Fisheries

Wellbeing has become a central concept among development scholars and practitioners to understand human and environment relations in the context of global environmental change. One example of this trend is the Millennium Ecosystem Assessment (MEA 2003: 29) that defines wellbeing as having “multiple constituents, including the basic material for a good life, freedom of choice and action, health, good social relations, and security”. The MEA has dealt with wellbeing as an outcome of access to the resources that ecosystems furnish to the human populations that depend on them. This treatment takes for granted the processes behind the appropriation and construction of such resources and assumes them to exist independent of individual resource users without the mediation of cultural, social and political structures.

This understanding of wellbeing and associated resources is drawn from the Sustainable Livelihoods Approach (SLA) developed by the United Kingdom Department for International Development (DFID, Scoones 1998). According to the SLA framework, the livelihoods of rural populations, including small-scale fishers, are influenced by natural, physical, human, financial and social capitals, known collectively as the ‘livelihood platform’ (or pentagon; Ellis 2000). The SLA framework has been useful in understanding the livelihood strategies of marginal sectors of the population and helping to prioritise policy interventions that foster local capabilities and potentialities (Allison and Ellis 2001; Allison and Horemans 2006). In the context of small-scale fisheries management, the SLA has helped to understand the social and economic heterogeneity of fishers’ households and the diversity of their livelihoods. Likewise, SLA has highlighted the pervasive influence that formal and informal institutions often have on fishers’ livelihoods and the multiple dimensions of poverty that they experience (Allison and Horemans 2006). In spite of these contributions, the SLA has been criticised because of its instrumental nature that fails to account for the role of power and culture and for reifying capitals into fixed categories (Gough et al. 2007; White and Ellison 2007; Weeratunge et al. 2014). Capitals exist independently of the individual and are understood to be “*out there*” to be accumulated, stored and used in order to achieve a particular end. When capitals are considered as self-contained, culture is assumed to be external to the basket of livelihood capitals or assumed to be merely an element of social capital and

wellbeing and outcome and not an integral process in the construction of sustainable livelihoods (Gough et al. 2007).

Developed by the Wellbeing in Developing Countries at the University of Bath (Gough et al. 2007), the social wellbeing framework deals with wellbeing both as a process and outcome of human action. Within this framework wellbeing is defined as: “a state of being with others, which arises where human needs are met, where one can act meaningfully to pursue one’s goals, and where one can enjoy a satisfactory quality of life” (McGregor 2009:4). The social wellbeing framework examines the experience and construction of wellbeing in people’s everyday lives employing three distinctive yet overlapping dimensions: material, subjective and relational. The material dimension considers the objective circumstances of the individual, the relational dimension considers how the individual establishes relations with multiple social actors in their environment and the subjective dimension considers how the individual perceives their everyday life (Gough and McGregor 2007).

Within this framework, the objective circumstances of individuals and communities, as well as perceptions of them, are situated within a societal context and, therefore, contained within contingently generated frameworks of meaning (Gough and McGregor 2007). As it is constituted through social, political, economic and cultural processes, wellbeing entails both the outcomes of livelihood strategies and the processes that underlie their construction (Gough et al. 2007). SLA’s capitals and assets are examined from a social science perspective that recognises them as socially constructed resources. In this way, social wellbeing acknowledges the role culture plays in shaping what people consider as resources (White and Ellison 2007) and takes into consideration how people’s quality of life and their desires and aspirations are framed by local and global environmental change (Coulthard et al. 2011). In the context of small-scale fisheries, the wellbeing framework becomes particularly relevant to understanding how fishing households negotiate the trade-offs associated with a generalised fishing crisis, the shift from natural resource based to wage labour livelihoods and the transition from rural to urban lifestyles (Idrobo and Johnson [forthcoming](#); Trimble and Johnson 2013).

#### **4.5 The Fishery, Improvements in Quality of Life and Their Trade-Offs**

I frequently heard from adults in Ponta Negra that their quality of life has gotten better since they were young. These improvements to the local quality of life are associated with their work in the regional industrial fishing fleet and, especially, the development of the small-scale commercial fishery in the community revolving around the pound net fishing technology. As a community elder expressed it: “*Life improved many times from how it was when I was a little boy. Access to better jobs and to more money has been responsible for the improvement of our lives*”. Although

perceived as improvements, these lifestyle changes also have had trade-offs. I use the analysis of these trade-offs as the basis for the results and discussion section of this chapter. The following section unpacks the material and social dimensions of the social wellbeing framework to analyse some of the factors that are considered to have improved the quality of life in the community and are directly related to the local commercial fishery. The subjective dimension of wellbeing section reflects upon the role that material and social resources play in the construction of what people understand as quality of life and the ways by which they strive to achieve it. A more detailed analysis of Ponta Negra's wellbeing and livelihoods can be found in Idrobo (2014). Factors are accompanied by an illustrative quote from a community member and explained in terms of the improvements and trade-offs they entail. The fishery and associated dynamics are part of the complex social-ecological system of Ponta Negra, which means that although the factors are described according to specific dimensions of the wellbeing framework, their effects are intertwined and hence separated only for analytical purposes.

### ***4.5.1 Material Dimension of Wellbeing***

The material dimension of wellbeing encompasses material assets, welfare and standards of living that a person and their household require to meet their needs and to live well (White 2010). In the context of Ponta Negra and its small-scale fishery, this dimension intertwines with the natural resource base, fishing technology, income and wage labour as well as means of transportation, food and housing (Table 4.1). Before the establishment of the fishery, small-scale shifting agriculture was the main component of the local productive system. The relatively small amounts of fish that were captured along the shore or off dugout canoes were mostly consumed at home and shared among friends and family. Some of the fish dried for long-term storage was occasionally exchanged in nearby markets for salt, rice and other non-perishables. People relate the period before the fishery to scarcity, limited resources and little cash.

The establishment and development of the local commercial fishery and the growth of the regional fishing economy have shaped the material dimension of wellbeing since the 1970s. With the establishment of the fishery, the outcome of activities associated with fishing resources transformed from household consumption and petty exchange to commercial exchange. The adoption of the pound net fishing technology and associated infrastructure not only increased the volume of the local catches but also improved the means by which these could reach the regional fish markets. When this fishery began to operate, boats from Rio de Janeiro and São Paulo cities picked up the fish in Ponta Negra, but later on, when gear owners could afford their own boats, the catches were taken directly to the fish markets. Parallel to this, the growing regional fishing fleet began to employ many people in the community (Idrobo and Davidson-Hunt 2012). These processes provided access to cash



**Table 4.1** Material dimension of wellbeing, improvements and trade-offs

Material dimension/ factor	Illustrative quote	Improvements	Trade-offs
<b>Access to cash income and wage labour</b>	<i>“We were able to pay everything with money from the fish we caught in the pound net fishery”</i>	Access to store bought foods and building materials, and financial capital for investment in livelihood diversification opportunities New job opportunities and skills	Specialisation in the fishery and simplification of livelihood portfolios, increased reliance on cash prompting out-migration to seek employment, decreased time for and reliance on land-based activities
<b>Transportation to urban centres</b>	<i>“When I was a child, going to the city took an entire day. These days it only takes a couple of hours because of the skiffs and the bus system. These alternatives were not available for our parents”</i>	Reduced travelling time to urban centres and increased capacity to transport fish catches and other goods	High costs of transportation and fuel limit mobility
<b>Diet diversification</b>	<i>“40 years ago, we ate beans, rice and dry meat once a year; they were a treat for us. Our main food items were fish and green banana. Only at Christmas we spent some money on special foods”</i>	Widening of diet and taste to include store-bought foods, which are seen as less physically demanding to obtain and process	Dependence on store bought foods, increased consumption of processed carbohydrates, and change in protein sources
<b>Housing improvement</b>	<i>“Most of the money I received from the pound net fishery was invested in improving my house”</i>	Enhancement of living and sanitary conditions and creation of opportunities to benefit from the booming tourism economy	Reduction in the use of local materials and techniques, and erosion of social and sharing activities ( <i>mutirão</i> )

and better transportation that in turn created a ripple effect that facilitated other local improvements, such as dietary diversification and better housing.

Coupled with access to cash, more efficient transportation to and from urban centres and markets had a significant effect in the local diet. Direct boat trips between the community and urban centres cut down travel time from 2 days to between 4 and 5 h. This allowed Ponta Negra residents to visit the city more often

to purchase store foods, which broadened the local diet by incorporating new items, flavours and tastes. Dried and boiled fresh fish as well as green banana, coffee, corn and rice that used to be the basis of the local diet among many other locally grown and harvested food stuffs, were quickly replaced by deep-fried fish, rice and beans as the main staples in the community (Idrobo 2014). The option to purchase these items reduced the uncertainty of access to food in times of scarcity during the leanest season of the year (i.e., the austral winter) as well as the reliance on shifting agriculture and forest harvesting, practices that were progressively banned by the regional environmental authority after they declared the Juatinga Ecological Reserve in 1992 (Idrobo et al. 2016).

Cash income and better transportation also led to access to construction materials that in turn allowed people in Ponta Negra to upgrade their homes from houses made with wattle and daub to brick and tile, raising sanitary conditions and overall comfort. Since the *barbeiro* (*Triatoma cruzi*), the main vector of Chagas disease (Kropf and Sá 2009), dwells in the walls and roofs of wattle and daub buildings, and Ponta Negra is located in a Chagas-endemic region, houses made with brick and tile became a priority as soon as people could afford construction materials. As fish catches declined around the 1990s, some people had the foresight to invest their savings from the fishery into other assets, including renovating or rebuilding houses that could be used in the growing tourism economy. They not only took advantage of improved houses by renting them to tourists for short stays in the community, but also built restaurants from converted fish storage shacks and adapted the skiffs formerly used to deliver fish catches to fish buyers to transport tourists during the tourism season.

The transition from a declining fishing economy to a booming tourism one brought about a process of new skill acquisition that people also associate with further improvements in their quality of life. Housing construction and activities in the tourism economy are prime examples of that. On the one hand, the adoption of new construction materials, such as brick and tile, prompted some people to learn or hone skills associated with housing construction and, with it, the emergence of a new productive activity that currently involves ten households, four of which depend on it as their primary economic activity. On the other hand, the skills necessary to profit from the tourism sector have been acquired as the popularity of this sector has spread in the region. Through their participation in property caretaking, transportation and ecotourism guiding services, the tourism sector has allowed some to cope with the hardships of the declining fishery. Meanwhile for those who have been able to invest in the sector, tourism has been linked to learning new skills that have provided the basis to accumulate capital and benefits from this sector. This is the case of the restaurant owners and local tourism operators, whose businesses have become renowned destinations in the region. For this particular group, formal education and training are key material resources that have enabled them to succeed in a new environment that demands not only literacy but also the command of computer-based, networking and tourism management skills. Today, tourism is the main source of income for ten households (22%) and provides supplementary income for another 23 (51%). Housing construction and caretaking are particularly important

during the winter months when the yield from fishing and tourism activities are at their lowest. People associate both housing construction and tourism activities with improvements in their quality of life because of the jobs and extra income they provide in a place with limited options.

### 4.5.2 *Relational Dimension of Wellbeing*

Relational wellbeing refers to the relationships people have and value for living a good life (White and Ellison 2007). In the context of Ponta Negra and its commercial fishery these relationships include interactions between individuals and their families, relatives and neighbours at the community level as well as interactions with fish buyers and environmental authorities through their representatives. These relations influence access to natural resources, including the material and immaterial benefits people get from them. Understanding the improvements and associated trade-offs from a relational perspective thus requires tracing the relations that have shaped and have been shaped by the commercial fishery, which include those interactions amongst community members, people working in the fishery and fish buyers (Table 4.2).

Relational wellbeing factors associated with relationships among community members and people directly related to the fishery are the outcome of the emergence of institutions based on reciprocity for exchanging fish, other resources and services as well as for regulating the use of fishing spots and the economic benefits people derive from participating in the fishery. Rules based on reciprocity are followed when pound net owners and crews share their catches with people in the community in exchange for help in the pound net fishery. Given the lack of a pier or similar infrastructure, landing dugout canoes and fibreglass skiffs full with the catch of the day or fishing gear requires twice as many people as those who compose a crew (Fig. 4.4). Likewise, considering the tropical heat of a normal day, transporting the catch from the beach to the storage huts is a task that must happen quickly and is supported by the hands of many people. Without additional labour beyond that offered by the crew, chores related to running this fishery would be more difficult, if not impossible.

Likewise, helping in pound net-related duties on the land is a form of exchange that allows those not directly involved in the fishery to gain access to fish. Net owners also commented that they share fish with friends and people they respect. This is the case of the oldest person in the community who is known to like blue runner (*Caranx crysos*) and receives it from many fishers without needing to ask for it. Income from the commercial trade of fish is distributed among those directly involved in the fishery according to their position. While the pound net owner keeps half of the net profit, the rest is distributed in equal parts among the crewmembers. If the owner also works as a crewmember, he is also entitled to receive a crewmember's part. This payment system is the same across all the pound nets in the community, even though not all the pound nets have the same crewmember structure.

**Table 4.2** Relational dimension of wellbeing

Relational dimension/factor	Illustrative quote	Improvements	Trade-offs
<b>Community members</b>	<i>“Those who deserve fish are those who help me land the canoes on the beach, to store the fish in the hut and whatever comes up. Pound net owners share fish from the heart”</i>	Development of sharing and reciprocity values	Erosion of sharing and reciprocity values due to decrease in fish catches
<b>Relations among people working in the fishery (owners and crews)</b>	<i>“To keep the right for using a spot you need to keep your fishing gear there and use it constantly”</i>	Emergence of local institutions related to use of fish spots and payment structure to distribute benefits between gear owners and crewmembers	Emergence of social hierarchies that developed path dependent livelihood diversification strategies
<b>Fish buyers</b>	<i>“Even though there was much more fish than today, there was not a lot of commercial fishing going on in Ponta Negra... We had no way to transport fish products. Commercial fishing did not exist because we had no buyers for our catches”</i>	Possibility for income generation through commercial fish trade with stable, long-term brokers Support to access necessary supplies (e.g., ice, fuel and fishing gear parts)	Fish buyers are perceived to take advantage of fishers by paying low prices for the catches, poor book keeping and weighing the fish inaccurately

Informal institutions have emerged to exclude users from using the same fishing spot and to regulate the distance between fishing spots in order to avoid conflict among users. Those who were able to set up a net at the time the fishery started gained an advantage over other community members who were not able to do so. From then on tenure over fishing spots has been secured and normalised through well-known codes of respect for the continued use of a given spot. Today, Ponta Negrans respect the fishing spot each net occupies to the point of considering them part of a family tradition in which parents transfer use rights to their offspring. In addition to respect, the informal tenure system in place is reinforced on the basis of use. If somebody is using a fishing spot regularly, nobody is allowed to deploy gear there.

With the abrupt decline in fish catches in the 1990s, pound net owners were forced to decommission or sell their diesel boats and were forced to find fish buyers who were willing to pick up the catches at Laranjeiras, the closest site to Ponta Negra with road access at the time (Brito 2003). When these relationships were established, the fish buyers also became the providers of fuel, ice and other resources



**Fig. 4.4** Group of men helping to land a fiberglass skiff

necessary for keeping the pound nets running in exchange for purchasing the catches. Pound net owners secured a fixed buyer who would always buy their catch at the expense of having to accept any price offered by that buyer for their product. In addition to the pound net catches, the three fish buyers with dealings in Ponta Negra have also become buyers for fish captured with other techniques, thereby providing income alternatives to a wider sector of the Ponta Negra population.

### ***4.5.3 Subjective Dimension of Wellbeing***

The subjective dimension of wellbeing refers to people's own perspectives on their current living conditions, the resources they have access to and what they can do with them (White 2010). In the context of Ponta Negra, this dimension of wellbeing can help to explain how the perception people have of key material and social resources structures the desires and aspirations of individuals and their households. The development of the pound net fishery brought substantial changes to human-environment relations that reverberated through and re-shaped what people understand as quality of life in Ponta Negra. In spite of its relatively recent introduction, the pound net fishery, and fishing in general, have become a way of life that is integral to the local identity and the attachment people have to their community. However, due to the crisis in the fishery and the emergence of other livelihood

options linked to the integration to the regional tourism economy for the younger generations, fishing has become an undesirable path for future generations:

I want my children to improve their way of life. I think good education is a means for them to get out of fishing. I would like my children to study and find a job outside Ponta Negra. I don't want them to become fishers, but I don't want to leave the community either. Life here is peaceful and quiet, but I want my children to leave the community so they have better opportunities.

This evolving association between the fishery and the local quality of life can be examined in relation to the discourse of improvement – *melhorar*. This discourse has been intertwined with the integration of the Ponta Negra economy with regional commodity markets that took place alongside the implementation of the commercial fishery. Such interactions have come with more job opportunities, greater access to cash and other resources, and with the restructuring of the local social order. The overall quality of life in Ponta Negra has improved, but people from different generations have adjusted their aspirations according to such changes. At the same time that the older generation does not want to leave the fishery, younger generations have been acquiring new skills in response to an economy that is progressively more reliant on wage labour and less on the harvest of natural resources. In a similar fashion, there is also an interclass wellbeing manifested in the ways in which the poorer people in Ponta Negra aspire to have the skills and the resources of the better off individuals and households (Idrobo and Johnson [forthcoming](#)).

## 4.6 Discussion

This chapter shows how the adoption and development of a commercial fishery has been linked not only to an overall improvement in the quality of life of people in Ponta Negra, but also to how quality of life has been shaped and perceived. Table 4.1 outlines how some of these improvements have associated trade-offs that can be found at multiple levels of the social-ecological system. These include access to cash income and wage labour and its relation to dietary changes as well as desire for better infrastructure and better transportation to and from urban centres in the region. Coulthard (2011, 2012) has identified that fishers and their families are in constant negotiation of trade-offs among different dimensions of their wellbeing, over the long and short-term, in the face of environmental change. The narratives found in this chapter support this view, showing how certain benefits people have received from the fishery are contingent on particular needs and aspirations at given moments of their personal lives and of the local economy, but may simultaneously compromise other aspects of their lives.

Reported as improvements in the material dimension of wellbeing, access to income and better transportation to urban centres have reverberated into increased access to store bought foods, construction materials and financial capital for future livelihood diversification. Such improvements, however, have come at the expense

of developing specialisation in the pound net as the primary fishing technique in the community and reliance on cash, which have led to loss of relevance of a wide array of fishing techniques, integration of the local economy into regional commodity markets and the simplification of local livelihood portfolios (Idrobo 2014). Similar processes have been recorded in other coastal communities across the world, where people have lost their independence and become deeply integrated into regional and global social and economic processes (Johnson et al. 2005; Pilgrim et al. 2008; Wongbusarakum 2009). These changes have accompanied the re-shaping of human-environment relations, modifying people's needs, desires and aspirations.

In Ponta Negra, dietary change is not only associated with integration into commodity markets but also with the regulations that accompanied the declaration of the REJ. As a result of the adoption of the pound net fishing technology, people allocated more time to fishery-related activities and they neglected shifting agriculture and forest harvesting activities that furnished most of the food they used to rely upon. A state government prohibition on creating new shifting agriculture plots as well as on hunting for subsistence purposes, reinforced the need and preference in the community for store bought foods, leading to a drastic dietary transition. Community elders talk about the past as a time in which food from the shifting agriculture plots and the forest was abundant and few food items were bought in the city (Idrobo and Davidson-Hunt 2012). Before the community became more integrated with urban centres, the only products people used to buy were salt, rice and other non-perishables (Idrobo 2014). Today, only 8.6% of the land-based food items consumed, mostly tubers, fruits and spices, are either produced or harvested locally (Giraldi 2012). As reported in other rural communities in the Atlantic Forest Coast (Adams et al. 2013), as well as in other coastal communities elsewhere (Turner and Turner 2008), such dependence on store-bought foods translates into increased consumption of processed carbohydrates and protein sources. Such dietary change, coupled with reductions in farming, hunting and harvesting related exercise, also leads to susceptibility to obesity, high blood pressure and diabetes (Cassels 2006; Sheikh et al. 2011; Adams et al. 2013).

With better and easier transportation, accessing construction materials from urban centres became a trend that has slowly replaced the wattle and daub traditionally employed for housing construction. Brazilian scholars have associated this transition in the use of building materials with profound changes related to higher consumption life styles, which increase the dependence on cash from wage labour and affect community values related to sharing and cooperation (Hoefle 1992). In fact, the arrival of new construction materials has eliminated social activities, locally called *mutirão* (Sanches 2001), in which members of multiple households collaborate in key tasks such as the preparation and daubing of a house during construction with a mixture of clay, sand and straw.

In the context of the relational dimension of social wellbeing, erosion of values associated with sharing and reciprocity has also occurred around the fishery. The destructive practices of the industrial fishing fleets in the region have led to a decline in fish catches in Ponta Negra. In spite of the reduced availability of fish, community members expect as much fish from the pound nets as they were accustomed to

receiving when the catches were bigger. With less fish, some people have become reluctant to offer any help in the fishery, generating mistrust between gear owners and groups of community members. This attitude is often related to a perceived loss of values in young people, which are seen to manifest in a lack of willingness to work and a loss of respect towards elders. Similar escalating erosion of social values, which include egoism, noncompliance to local regulations and disrespect among community members, has been reported in other small-scale fisheries under stress associated with overexploitation of local resources and the effects of climate change (Schwarz et al. 2011). Likewise, erosion of social values and local institutions in rural areas are often described as outcomes of globalisation processes and are related to the changes in the interactions among household members and community members as well as re-negotiation of identities associated with emerging livelihood opportunities (Chant 2002).

Even though institutions emerged to enable the distribution of benefits from the fishery among people in the community, the social differentiation created by the development of the fishery also produced path dependent livelihood diversification strategies. Pound net owners followed a proactive strategy based on accumulating key knowledge and resources and investing them in the tourism sector while keeping control of the fishery. Meanwhile, the rest of the community pursued survival strategies based on continuing to work for the gear owners, both in and outside the context of the fishery (Idrobo and Davidson-Hunt 2012). Even though eleven households depend directly on the fishery and another eleven depend on it indirectly, with the growth in importance of the tourism economy, non-gear owners have begun to allocate more time and resources to this sector, with some even emigrating to nearby urban centres in search of income alternatives. Lack of formal education, assets and networks in the local tourism economy mean that people generally get low-skilled entry level jobs with poor pay and few advancement opportunities. In this way, many people became both alienated from the fishery and unable to enter other sectors as they lack the knowledge and resources needed to be successful in them. As is often the case (Coulthard et al. 2011), those who have the most control over the fishery are the ones who depend on it the least.

Fish buyers are considered a necessary evil in Ponta Negra. Although they make fish trade possible and provide supplies needed for running the fishery, fish buyers are perceived to take advantage of the fishers not only by paying low prices for the local catches, but also because of poor book keeping, weighing the fish inaccurately and changing fish prices for their own benefit. With all its ambiguities, the role of fish buyers has been recognised as key for providing markets to fishers from isolated communities in the global south (Begossi 1996; Crona et al. 2010). In the case of Ponta Negra, the existence of undesired dealings with fish buyers is also an indicator that the lack of adequate storage facilities and means of transportation are the main structural limitations that fishers from Ponta Negra face that prevent fair access to markets. Without adequate infrastructure local fishers consider themselves unable to compete against the fish caught by industrial boats in the region whose catches, immediately stored in ice and sent either to cold rooms or straight to the markets, are maintained within carefully controlled temperatures throughout the supply chain.



The use of a social wellbeing lens illustrates the role of new skills, both in the context of the fishery and outside of it, in adapting to the changing economy while reaping the benefits from it. This perspective highlights an important area of discontent in the study of the continuity and change of environmental knowledge of rural and small-scale societies. Ethnobiologists and traditional ecological knowledge researchers often make direct association between the adoption of new skills with decreased reliance on natural resources and their harvesting as well as overall decreases in wellbeing (Godoy et al. 2005; Reyes-García et al. 2009). My results suggest that such relations are not so linear, but they are deeply intertwined in the geographic context and people's agency. People's desire for formal education suggests that access to good quality formal education in the community may be key for creating local jobs, taking control of the tourism networks that benefit from the aesthetic values of Ponta Negra. These are conditions necessary for families, especially those with school-age children, to stay in the community and, thereby, likely retain more active connections with the natural resource base.

## 4.7 Conclusion

Social wellbeing shows how the adoption and development of a small-scale commercial fishery reveals not only how quality of life has been improved by such processes, but also how they are associated with trade-offs among multiple dimensions of everyday life. Although some scholars consider Ponta Negra to be a resilient community due to its high diversity of livelihood activities (Hanazaki et al. 2013), my analysis shows a more complex picture of how many decisions taken at particular moments and within particular contexts have compromised the control and use of natural resources, as well as the perceptions people have of them. For many people, the fishery and fishing activities in general are central components of their lives. Not only has fishing been the main driver allowing people in the community to reduce their sense of poverty and isolation, but it also persists as a linchpin of the local economy. However, many of the improvements associated with the fishery have come at the expense of autonomy in their dietary and income options, as well as increased dependence on cash income and urban centres. A social wellbeing approach describes the diversity in local livelihoods while taking into consideration how they are historically constituted and shaped by the social structures and social classes that underlie them as well as by people's preferences, desires and aspirations.

By employing a social wellbeing lens to examine local perspectives on livelihood transition, this chapter adds to understanding the contributions of small-scale fisheries in three ways. First, it presents the case of the coastal community of Ponta Negra as an example of the role that a small-scale fishery has played in allowing the flow of knowledge and resources across multiple levels. Second, through the local discourse of *melhorar* (to improve) it analyses how shifting perceptions of what people consider a good quality of life have been associated with local adaptations to

new economic opportunities. Third, it highlights factors underlying the continuity and change of fishing and other harvesting activities in an isolated, natural resource dependent coastal community. Employing the social wellbeing framework also provides a perspective for understanding how diverse and dynamic the values associated with fishing are in Ponta Negra. Social wellbeing provides a relational understanding, because it recognises that the values of fishing vary over time, by social position, and that there can be no simple tallying up of the values of the fishery to arrive at some aggregate measure of total value. What is valued depends on positionality or, in other words, who makes judgements of value (Johnson and Johnson et al., this volume).

## References

- Adams C (2000) As populações caiçaras e o mito do bom selvagem: a necessidade de uma nova abordagem interdisciplinar. *Rev Antropol* 43(1):145–182
- Adams C (2003) Pitfalls of synchronicity: a case study of the Caiçaras in the Atlantic Rainforest of Southeastern Brazil. In: Anderson DG, Berglund E (eds) *Ethnographies of conservation: environmentalism and the distribution of privilege*. Berghahn Books, New York, pp 19–31
- Adams C, Chamlian Munari L, Vliet N et al (2013) Diversifying incomes and losing landscape complexity in Quilombola shifting cultivation communities of the Atlantic Rainforest (Brazil). *Hum Ecol* 41:119–137
- Allison EH, Ellis F (2001) The livelihoods approach and management of small-scale fisheries. *Mar Policy* 25:377–388
- Allison EH, Horemans B (2006) Putting the principles of the sustainable livelihoods approach into fisheries development policy and practice. *Mar Policy* 30:757–766
- Begossi A (1996) The fishers and buyers from Búzios Island (Brazil): kin ties and modes of production. *Ciência e Cultura* 48:142–147
- Begossi A (2006) The ethnoecology of Caiçara metapopulations (Atlantic Forest, Brazil): ecological concepts and questions. *J Ethnobiol Ethnomed* 2(40). doi:10.1186/1746-4269-2-40
- Brito MCW (2003) *Unidades de conservação: Intenções e resultados*. Annablume, São Paulo
- Cassels S (2006) Overweight in the Pacific: links between foreign dependence, global food trade, and obesity in the Federated States of Micronesia. *Glob Health* 2:10
- Chant S (2002) Families on the verge of breakdown? Views on contemporary trends in family life in Guanacaste, Costa Rica. *J Dev Soc* 18(2–3):109–148
- Coulthard S (2011) More than just access to fish: the pros and cons of fisher participation in a customary marine tenure (Padu) system under pressure. *Mar Policy* 35(3):405–412
- Coulthard S (2012) Can we be both resilient and well, and what choices do people have? Incorporating agency into the resilience debate from a fisheries perspective. *Ecol Soc* 17(1.) <http://dx.doi.org/10.5751/ES-04483-170104>
- Coulthard S, Johnson D, McGregor JA (2011) Poverty, sustainability and human wellbeing: a social wellbeing approach to the global fisheries crisis. *Glob Environ Chang* 21(2):453–463
- Coulthard S, Paranamana N, Sandaruwan L et al (2015) Exploring wellbeing in fishing communities (South Asia), *Methods handbook*. Online open access publication. [https://www.researchgate.net/profile/Sarah\\_Coulthard](https://www.researchgate.net/profile/Sarah_Coulthard)
- Crona B, Nyström M, Folke C, Jiddawi N (2010) Middlemen, a critical social-ecological link in coastal communities of Kenya and Zanzibar. *Mar Policy* 34(4):761–771
- Davidson-Hunt IJ, Asselin H, Berkes F, Brown K, Idrobo CJ, Jones MA, McConney P, O’Flaherty RM, Robson JP, Rodriguez M (2016) The use of biodiversity for responding to globalised change: a people in nature approach to support the resilience of rural and remote communities.

- In: Davidson-Hunt IJ, Suich H, Meijer SS, Olsen N (eds) *People in nature: valuing the diversity of interrelationships between people and nature*. IUCN, Gland, pp 19–31
- Dean (1996) *With broadax and firebrand: destruction of the Brazilian Atlantic Forest*. University of California Press, Berkeley
- Defeo O, Castrejón M, Ortega L, Kuhn AM, Gutiérrez NL, Castilla JC (2013) Impacts of climate variability on Latin American small-scale fisheries. *Ecol Soc* 18(4):30. <http://dx.doi.org/10.5751/ES-05971-180430>
- Diegues AC (1983) *Pescadores, camponeses e trabalhadores do mar*. Ática, São Paulo
- Diegues AC (2004) *A pesca construindo sociedades*. NUPAUB-USP, São Paulo
- Ellis F (2000) The determinants of rural livelihood diversification in developing countries. *J Agric Econ* 51(2):289–302
- Giraldi M (2012) *Recursos alimentares vegetais em duas comunidades caiçaras no sudeste do Brasil: Discutindo modos de vida e segurança alimentar*. Master's Thesis, Universidade Federal Rural de Pernambuco, Recife
- Godoy R, Reyes-García V, Byron E, Leonard W, Vadez V (2005) The effect of market economies on the well-being of indigenous peoples and on their use of renewable natural resources. *Annu Rev Anthropol* 34:121–138
- Gough I, McGregor JA (eds) (2007) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge
- Gough I, McGregor JA, Camfield L (2007) *Theorising wellbeing in international development*. In: Gough I, McGregor JA (eds) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge, pp 3–43
- Hanazaki N, Berkes F, Seixas CS, Peroni N (2013) Livelihood diversity, food security and resilience among the Caiçara of Coastal Brazil. *Hum Ecol* 41:153–164
- Hoeffe S (1992) Fishing, tourism and industrial development in Southeast Brazil: small-scale fishers under siege? In: Agüero M (ed) *Contribuciones para el estudio de la pesca artesanal en América Latina*. ICLARM Conference Procedures 35
- Idrobo CJ (2014) *Ponta Negra ethnoecology of practice: intergenerational knowledge continuity in the Atlantic Forest Coast of Brazil*. PhD thesis, Natural Resources Institute, University of Manitoba, Winnipeg, pp 342
- Idrobo CJ, Davidson-Hunt IJ (2012) Adaptive learning, technological innovation and livelihood diversification: the adoption of pound nets in Rio de Janeiro State, Brazil. *Maritime Stud* 11(3). doi:[10.1186/2212-9790-11-3](https://doi.org/10.1186/2212-9790-11-3).
- Idrobo CJ, Johnson D (Forthcoming) A social wellbeing perspective on adaptive preferences and coastal livelihood transitions on the Atlantic Forest Coast of Brazil
- Idrobo CJ, Davidson-Hunt IJ, Seixas CS (2016) Produced natures through the lens of biodiversity conservation and tourism: the Ponta Negra Caiçara in the Atlantic Forest Coast of Brazil. *Local Environ* 21(9):1132–1150. doi:[10.1080/13549839.2015.1075479](https://doi.org/10.1080/13549839.2015.1075479).
- Johnson D, Bavinck M, Veitayaki J (2005) Fish capture. In: Kooiman J, Bavinck M, Jentoft S, Pullin R (eds) *Fish for life: interactive governance for fisheries*. Amsterdam University Press, Amsterdam, pp 71–91
- Kropf SP, Sá MR (2009) The discovery of *Trypanosoma cruzi* and Chagas disease (1908-1909): tropical medicine in Brazil. *História Ciências Saúde* 16:13–34
- McGregor JA (2007) Researching wellbeing: from concepts to methodology. In: Gough I, McGregor JA (eds) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge, pp 316–350
- McGregor A (2009) *Human wellbeing in fishing communities (Working Paper)*. Institute of Development Studies, Sussex
- Mussolini G (1980) *Essaios de antropología Indígena e Caiçara*. Paz e Terra, Rio de Janeiro
- Perry RI, Ommer RE, Barange M, Jentoft S, Neis B, Sumaila UR (2011) Marine social-ecological responses to environmental change and the impacts of globalization. *Fish Fish* 12(4):427–450
- Pilgrim SE, Cullen LC, Smith DJ, Pretty J (2008) Ecological knowledge is lost in wealthier communities and countries. *Environ Sci Technol* 42(4):1004–1009

- Reyes-García V, Broesch J, Calvet-Mir L, Fuentes-Peláez N, McDade TW, Parsa S et al (2009) Cultural transmission of ethnobotanical knowledge and skills: an empirical analysis from an Amerindian society. *Evol Hum Behav* 30:274–285
- Sanches RA (2001) Caiçara communities of the Southeastern coast of São Paulo State (Brazil): traditional activities and conservation policy for the Atlantic Rain Forest. *Hum Ecol Rev* 8(2):52–62
- Schwarz A-M, Béné C, Bennett G, Boso D, Hilly Z, Paul C et al (2011) Vulnerability and resilience of remote rural communities to shocks and global changes: empirical analysis from Solomon Islands. *Glob Environ Chang* 21(3):1128–1140
- Sheikh N, Egeland GM, Johnson-Down L, Kuhnlein H (2011) Changing dietary patterns and body mass index over time in Canadian Inuit communities. *Int J Circumpolar Health* 70(5):511
- Thorpe A, Bennett E (2001) Globalisation and the sustainability of world fisheries: a view from Latin America. *Mar Resour Econ* 16(2):143–164
- Trimble M, Johnson D (2013) Artisanal fishing as an undesirable way of life? The implications for governance of fishers' wellbeing aspirations in coastal Uruguay and southeastern Brazil. *Mar Policy* 37:37–44
- Turner NJ, Turner KL (2008) “Where our women used to get the food”: cumulative effects and loss of ethnobotanical knowledge and practice. *Botany* 86(2):103–115
- Von Brandt A (1972) *Fish catching methods of the world*, revised and, enlarged edn. Fishing News Ltd., West Byfleet
- Weeratunge N, Béné C, Siriwardane R, Charles A, Johnson D, Allison EH et al (2014) Small-scale fisheries through the wellbeing lens. *Fish Fish* 15(2):255–279
- White SC (2010) Analysing wellbeing: a framework for development practice. *Dev Pract* 20(2):158–172
- White S, Ellison M (2007) Wellbeing, livelihoods and resources in social practice. In: Gough I, McGregor JA (eds) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge, pp 157–175
- Wongbusarakum S (2009) Loss of traditional practices, loss of knowledge, and the sustainability of cultural and natural resources: a case of Urak Lawoi people in the Adang Archipelago, Southwest Thailand. In: Bates P, Chiba M, Kube S, Nakashima D (eds) *Learning and knowing in indigenous societies today*. UNESCO, Paris, pp 73–86

**Carlos Julián Idrobo** is Assistant Professor at the Interdisciplinary Centre for Development Studies at Los Andes University, Bogotá, Colombia. By bringing together ethnobiology, political ecology and social wellbeing, his research examines the role of biodiversity and local knowledge associated with it in the adaptation of small-scale communities to environmental change. His research takes place in coastal areas of the Brazilian Atlantic Forest and the Colombian Pacific.

# Chapter 5

## Understanding Social Wellbeing and Values of Small-Scale Fisheries amongst the Sama-Bajau of Archipelagic Southeast Asia

Natasha Stacey, Dirk J. Steenbergen, Julian Clifton, and Greg Acciaioli

**Abstract** The Sama-Bajau represent one of the most widely dispersed Indigenous groups in Southeast Asia. Recent estimates indicate a total population of approximately 1.1 million, with around 200,000 living in areas of high biodiversity in the islands of eastern Indonesia, 347,000 in Malaysia (Sabah) and 564,000 in the Philippines. Sama-Bajau culture is intimately connected to marine environments on which they depend for subsistence and cash income, as well as their cultural identity. Culturally defined patterns of fishing activity (including migratory expeditions) unite all sectors of Sama-Bajau communities through catching, consuming, processing and trading of marine resources. Fishing and gathering of shellfish and other strand resources provide the focus for individual and communal relations within villages and across extensive kin and trading networks. The maintenance and transmission of Indigenous language and knowledge between generations occurs through socialisation into livelihoods and related social and cultural activities. As such, customary beliefs and practices in relation to boats and sea spirits endure among the Sama-Bajau, and are primarily oriented to ensuring return on fishing effort. Sama-Bajau small-scale fisheries (SSF) across insular Southeast Asia therefore present a highly relevant case study. We will explore the dimensions of social wellbeing in the Sama-Bajau context and identify how the Sama-Bajau have responded to endogenously developed and exogenously induced drivers. Utilising our collective experience of Sama-Bajau society in diverse locations across Indonesia, Malaysia and the Philippines, we will discuss the parameters of continuity and transformation in the Sama-Bajau way of life. The case

---

N. Stacey (✉)  
Research Institute for the Environment and Livelihoods,  
Charles Darwin University, Darwin, NT, Australia  
e-mail: [natasha.stacey@cdu.edu.au](mailto:natasha.stacey@cdu.edu.au)

D.J. Steenbergen  
Charles Darwin University, Darwin, NT, Australia  
e-mail: [dirk.steenbergen@cdu.edu.au](mailto:dirk.steenbergen@cdu.edu.au)

J. Clifton • G. Acciaioli  
The University of Western Australia, Perth, WA, Australia  
e-mail: [julian.clifton@uwa.edu.au](mailto:julian.clifton@uwa.edu.au); [gregory.acciaioli@uwa.edu.au](mailto:gregory.acciaioli@uwa.edu.au)

study offers the opportunity to explore how historical and contemporary drivers have contributed to the variability of Sama-Bajau social welfare, spatially and temporally.

**Keywords** Sama-Bajau • Southeast Asia • Social wellbeing • Fishing • Livelihood change

## 5.1 Introduction

### 5.1.1 *Small-Scale Fisheries and the Sama-Bajau*

Scattered throughout the littoral and sea regions of the mainland and archipelagic nations of Southeast Asia are groups of specialist fishing populations known collectively in academic, historical and popular literature as ‘sea nomads’, ‘sea people’ or ‘sea gypsies’ (Sather 1997; Sopher 1977). These are often characterised as consisting of three broadly-defined ethnolinguistic groups: the Moken, the Orang-Laut and the Sama-Bajau. The high biodiversity of island ecosystems in Southeast Asia has enabled each of these geographically, linguistically and culturally distinct groups to develop a range of livelihood attributes (Sather 1995, 1997).

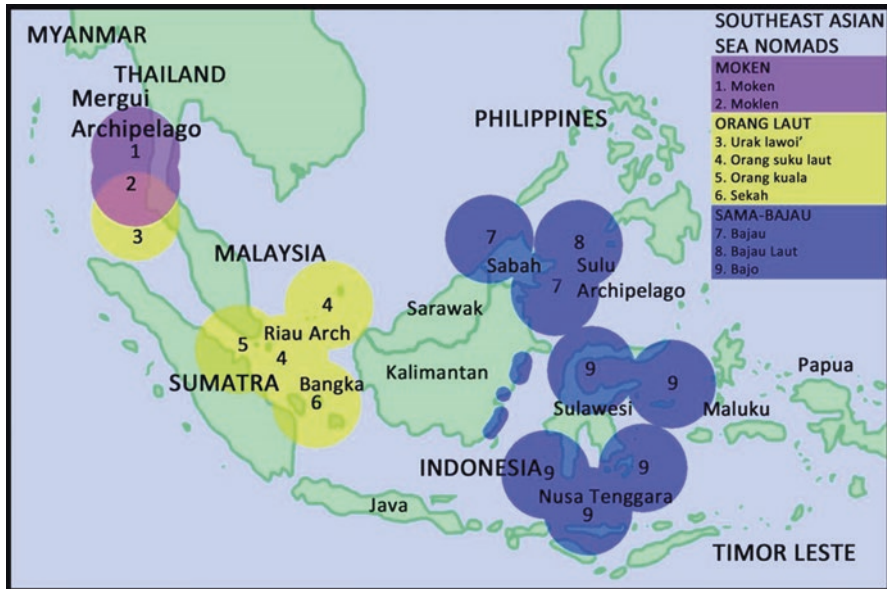
The Moken (also sometimes called Selung or Salones) are found in the Mergui Archipelago and coastal waters of Myanmar (Burma) and around the coasts and islands along the south-west part of Thailand.<sup>1</sup> The *Orang Laut* (*Suku Orang Laut* - Sea Tribe People), and related groups, identify as Malays or Indigenous (*Orang Asli*) and are found in the Riau archipelago region of Indonesia, the east coast of Sumatra, Singapore, the islands of Bangka and Belitung, and the coasts of the Malay Peninsula (Chou 2003; Lenhart 2002; Wee 1985).<sup>2</sup>

The Sama-Bajau are the most mobile, specialised and widely dispersed of these groups (Sather 1997). There are approximately 1.1 million Sama-Bajau speakers<sup>3</sup> in

<sup>1</sup> It is estimated that around 6000 members remain and their language, Moken, is threatened. <http://www.ethnologue.com/language/mwt> [Accessed 20 June 2013]. See Anderson (1890); Ivanoff (1985); Sopher (1977), for information about the Moken. The more sedentarized elements of this population, found largely on the coasts and islands just south of the Mergui Archipelago, are also known as the Moklen. The differentiation of more sedentary and more migratory subpopulations follows the pattern of Sama-Bajau elsewhere in the archipelago, as sedentary Sama have been differentiated from Sama Dilaut populations in the southern Philippines and Bajau Tempatan or Bajau Darat from Bajau Laut in Sabah.

<sup>2</sup> According to Chou and Wee (2002) population data on Orang Laut are lacking as they are not officially counted in government statistics. A northern group of Orang Laut, the ‘Urak Lawoi’, inhabit offshore islands and coastlines in Thailand just south of the Moken-Moklen region (Sather 1995). For more on Orang Laut in Indonesia, see Chou (2003), Chou and Wee (2002) and Lenhart (2002).

<sup>3</sup> The Sama-Bajau languages make up a discrete sub-group of Austronesian languages within the Western Malayo-Polynesian language family originally described as ‘Indonesia Bajaw’ by Pallesen (1985). There are ten Sama-Bajau languages and numerous dialects (Pallesen 1985). The Sama-Bajau language spoken in Indonesia appears to be closely linked to the Southern Sama language spoken along the coast of Sabah, on its offshore islands, and in the Sulu Archipelago of the southern Philippines (Sather 1997). In Indonesia, there is only ‘small divergence on a dialectal level’ (Verheijen 1986, pp. 26–27).



**Fig. 5.1** Distribution of three main sea-nomad groups and sub groups in Southeast Asia (After Lenhart 1995)

Southeast Asia, with around 200,000 in eastern Indonesia, 350,000 in the Malaysian state of Sabah and over 550,000 in the Philippines (Fig. 5.1) (Mead and Lee 2007; Nagatsu 2007). Our analysis of mobile fishers and their values in small-scale fisheries (SFF) focuses on this group.

Most Sama-Bajau speakers have historically referred to themselves using the name of their language as Sama, A'a Sama, Sama Dilaut, or Orang Sama. Outsiders, and increasingly the people themselves, describe this group by a host of names including Bajo (used specifically in Indonesia), Bajau and Bajau Laut or 'Sea Bajau'. Some groups add toponyms to their self-designation with reference to particular islands or anchorages (Lenhart 1995; Sather 1997); the inclusion of place names in their own endonyms is particularly salient among sedentarized Sama-Bajau populations. Within this large population there are differing degrees of land and sea orientation and fishing practice, with maritime semi-nomadic or migratory groups at the extreme sea-orientation end of the range. Nowadays the majority of Sama-Bajau have moved to permanent dwellings along the coast, often in 'water villages' of dwellings built on stilts over littoral waters (Sather 1997; Warren 1971). Smaller numbers of boat-dwelling Sama-Bajau remain, numbering perhaps around 5000 across Southeast Asia (Sather 1997). These latter groups have been previously identified as 'Oceanic Sama' or 'Sama Dilaut' in the Philippines (Sather 1995) or Bajau Laut (Fox 1977) in Indonesia and Sabah due to their mobile migratory foraging and fishing strategies.

The Sama-Bajau engage in a profusion of livelihood activities, involving all individuals and a diversity of subsistence and commercially orientated fishing activities. These reflect an intimate adaptation to local marine environments, presence of fishing grounds, various types of fishing technology (predominantly line, net and spear fishing) and access arrangements. Indonesian Sama-Bajau, for example, may practice gleaning (*nubba*, the manual collection of marine animals from the reef and mudflats at low tide) along with various fishing activities ranging from daily inshore coastal fishing (*pali libu*) to weekly reef fishing trips (*pongka*), or even extended long distance fishing expeditions (*lama*). They are known to collect over 300 marine species for food, medicine or trading purposes (May 2005; Stacey 2007). Some are specialist hunters and gatherers of luxury marine products, meeting a considerable East Asian demand for shark fin, sea cucumbers and live reef fish (Stacey 2007).

In our contribution to understanding the various kinds of values associated with SSF, rather than focusing on a particular fishery, our case study focuses on small-scale *fishers* in archipelagic Southeast Asia – in particular, those who identify themselves as marine-orientated ‘Sama-Bajau’. This builds upon our previous research into livelihoods, conservation, fisheries management and governance with reference to this group (Steenbergen 2006; Stacey 2007; Clifton and Majors 2012; Stacey et al. 2012; Clifton et al. 2014). We integrate these with our unpublished data and other secondary material through detailed analysis of key themes relating to small scale fisheries governance. Reflecting the diversity of Sama-Bajau fishing communities and their politico-economic contexts, we use these sources to develop the notion of a fluid maritime way of life to explore how social wellbeing is manifest through various combinations of spatial mobility, resource use, identity and kinship. We then outline how these are being transformed through external drivers and comment on the prospects for these small-scale fishing communities of Southeast Asia.

### ***5.1.2 Conceptualising ‘Social Wellbeing’ in the Context of the Sama-Bajau Maritime World***

The Sama-Bajau of archipelagic Southeast Asia are oriented by a broad set of values, traditions, worldviews and perspectives embedded in their connection to the maritime environment and in their interactions with one another and other groups (Majors 2008). We suggest that Sama-Bajau social well-being is linked to the four value sets of spatial mobility, autonomy and identity, resource use patterns and kinship ties. Their relationships with various land-based societies, often mediated through patron-client bonds, also render them responsive to external demands and restrictions. The socio-political, economic, and environmental parameters of these external influences are constantly changing, contributing further to a fluid and dynamic existence of the Sama-Bajau. We use the term ‘fluid’ in relation to these values to highlight both the constant movement of the marine-orientated Sama-Bajau groups across the seas in which they pursue their livelihoods and the land on



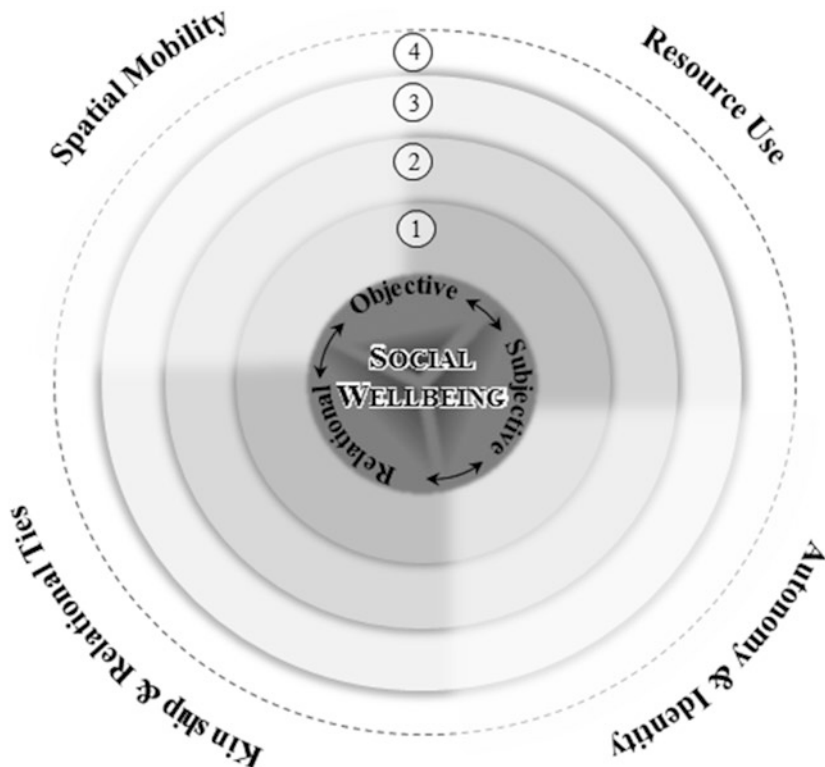
which they may temporarily settle, as well as their orientation to mobility as one of the cardinal values defining their identity and the context-sensitivity of their decision making as they evolve webs of relationships to form socio-political and trading networks (Pauwelussen 2015; cf. Ingold 2011 on ‘fluid space’). The Sama-Bajau thus clearly present a more complex case in comparison to, for example, other fisher groups that are involved in a single clearly defined fishery.

In taking into account the Sama-Bajau’s fluid ‘*way of life*’ and the values of SSF they embody as a livelihood and cultural identity, we draw as much from social wellbeing frameworks, such as the 3D social wellbeing approach (Weeratunge et al. 2013; Gough and McGregor 2007), as we do from other related, but less quantifiable, concepts such as ‘fisher identity’ (Lenhart 2002; McGoodwin 2001), ‘happiness’ (Coulthard 2012), or ‘freedom’ (Sen 1999). Our analytical departure point forms around an adaptation of the 3D social wellbeing model of Weeratunge et al. (2013, p. 14), which incorporates ‘commonly described facets of wellbeing in SSF into a circular grid that links the dimensions of social wellbeing to three expanding scales’. Following Weeratunge et al., we do not suggest rigid distinctions or mutually exclusive categories of values, but propose an open organizational frame to understand critical dimensions of Sama-Bajau social wellbeing that are strongly interrelated and overlapping.

Sama-Bajau social wellbeing values are presented in Fig. 5.2 along three main analytical dimensions. The first two analytical dimensions are closely interrelated, whereby the first dimension distinguishes a broad typology of values along objective, subjective and relational domains. These enable a rough categorisation of the second distinguishing dimension, namely the four sets of Sama-Bajau-specific values (spatial mobility, resource use, autonomy and identity, and kinship and relational ties). The third analytical dimension explores how values are enacted or given contextual precedence across various temporal and spatial scales. Given the interconnections tying together the first and second analytical dimensions, these will be explained together first before clarifying how these relate to the third analytical dimension of scale.

Objective (tangible) values relate to particular aspects of material culture and practices that are of importance to the Sama-Bajau. This may be embodied in the way marine resources are used (e.g. which species, how and where), while the style of housing (e.g. stilt house over water, beach hut or boat) may reflect lifestyle and fishing practices. This in turn influences mobility, either moving over large areas without a gravitational pull towards a single point or moving over recurring routes around a ‘home place’. Natural environmental factors also condition the movement and resource use patterns of Sama-Bajau. Seasonal fish aggregations and weather conditions may dictate cyclical movement patterns, whilst depleted fish stocks and, increasingly, limitations placed on them by enforcement of conservation measures may cause changes to movement patterns.

Subjective values also surface in relation to resource-use practices through aspects of pride, fulfilment and enjoyment derived from fishing activities and sociality among house–boatholds. Moreover, the perception amongst the Sama-Bajau that fishing success and/or environmental change is determined by higher beings



**Scales of relevance to the Sama-Bajau world**

<b>1</b>	Individual & House[‘Boat’]hold
	a Anchorage and/or burial group
	b Patron-Client network
	c Kin/Marital networks
	d Fishing grounds
<b>2</b>	Language/Dialect group
<b>3</b>	Maritime world of Sama-Bajau society as inflected by intersecting and conflicting regional politics
<b>4</b>	Global
	a Market demand
	b Conservation imperatives

**Fig. 5.2** Adaptation of the 3D social wellbeing approach to address values in SSF for the Sama-Bajau (Adapted from Weeratunge et al. 2013)

and sea spirits, rather than people, influences how Sama-Bajau respond to resource depletion and conservation measures (Majors 2008). Aspirations of autonomy and their embodiment of a certain identity are other strongly subjective factors. A long history of existing on the fringes of larger, more politically connected societies has

ironically developed a sense of autonomy. This remote and marginalised existence has meant that, whilst patron-client relations with economic middlemen and state agents have long existed, Sama-Bajau have viewed themselves as not necessarily subject to law or government in the same way as land-based cultures have (Nimmo 1968). In keeping with their orientation to mobility, infringements on such values of autonomy for fishers could simply be overcome by moving on to another area (see also Aburto et al. (2009) for the importance of mobility for fishery-based cultures). This historic dynamic mobility of the Sama-Bajau meant they held less particular accountability towards a single place, and more towards their extensive association to, for example, boatholds, market patrons, kinship and other relational networks or their belief system. This mobile maritime existence still stands at the foundation of a self-formulated identity amongst the Sama-Bajau. The subjective nature of 'identity', however, relates also to frameworks of identification imposed by who is identifying them. The various identities imposed upon the Sama-Bajau include intimately connected and physically adapted Indigenous people of the sea, as portrayed in the BBC series 'Living Planet',<sup>4</sup> or as 'bombers and intruders' (Lenhart 1997), or as a 'dirty', 'primitive' and 'pagan' people, which are connotations of the exonym Bajau Pala'u (sometimes transcribed Palauh) in eastern Sabah (Ali 2010, p. 158; Brunt 2013), illustrating the many socio-political pressures on the Sama-Bajau. These historical and contemporary interactions influence the identity of Sama-Bajau both as individuals in a specific space and time and as a collective within larger arenas.

Relational values, and their importance to Sama Bajau, are highlighted by the latter point. These encompass all four of the Sama-Bajau-specific value types in Fig. 5.2. Historically, many Sama-Bajau were known to live on houseboats (*lepa*), often loosely grouped according to anchorage or burial groups (Fox 2000; Nimmo 1968; Sather 1997). These groups formed around horizontal kinship and marital ties, but also have been conditioned by vertical ties of allegiance to local leaders (*panglima*) and common subordination to patrons. Other transient groups have formed around collective ties to a market or political patron, or reflect mutual interests in visiting seasonal fishing grounds. More recent policies amongst nation states in the region intent on sedentarizing Indigenous groups mean many Sama-Bajau now formally belong to a particular country as citizens (Saat 2010), though many of the more mobile marine-orientated Sama-Bajau remain stateless (Brunt 2013). In that process more established links to other groups have materialized amongst many Sama-Bajau communities, whether those be positive or negative. Connections to influential middlemen or –women (Pauwelussen 2015), for example, may form around strong patron-client relationships. These can, on the one hand, provide security as a source of immediate financial help, but can equally result in entrenched dependency through debt accumulation (Stacey 2007). Such developments have a profound impact on Sama-Bajau spatial mobility not only because of socio-economic connections keeping people in one area, but also through wider political fragmentation. Where previously an open Sama-Bajau maritime world allowed for

---

<sup>4</sup><http://www.bbc.co.uk/nature/humanplanetexplorer/environments/oceans> (accessed 11 October 2014).

relatively free migration across the region (Sather 1995), today's Southeast Asian seas are increasingly territorialized by political boundaries.

The third analytical dimension in Fig. 5.2 addresses scale, wherein four nested relevant levels at which Sama-Bajau operate are identified. Different influences or forces may take precedence at each scale, similarly to the way that 'being Sama-Bajau' assumes different meanings across scales. We identify the first scale as involving daily engagements across the most immediate social, economic and environmental networks, including within houseboats and in anchorage and/or burial groups, patron-client networks, kin or marital networks, and fishing groups associated with particular fishing grounds. Such interactions have the most direct and immediate impact on a person's social wellbeing. The second scale involves Sama-Bajau language and dialect groups. As depicted in Fig. 5.1, the various language-dialect groups across archipelagic Southeast Asia roughly claim presence in certain regions (Mead and Lee 2007). Even among Sama-Bajau themselves there is a distinct recognition of dialect differences, and these can be the markers of positions in various local hierarchies, as in the Darvel Bay region of Sabah where hierarchical distinctions exist between land-based *Bajau Tempatan* and water-based *Bajau Laut*. Sama-Bajau groups at this level may typically appear as a single stakeholder group in district or subdistrict level politics and planning, despite significant diversity existing among Sama-Bajau from a single area (Elliott et al. 2001). The wider maritime world of Sama-Bajau society forms the third level. This scale extends beyond the previously named spaces and transgresses more recently established political borders (Nolde 2009). In the final scale we speak of global trends and processes that may not have immediate daily impact, but certainly influence the Sama-Bajau way of life. This encompasses processes that the Sama-Bajau themselves may not be directly involved in or even aware of. For instance, global market developments influence the trade of particular marine resources feeding into regional and global commodity chains (Fabinyi 2013), whilst conservation movements seek to secure and regulate activities within natural environments, both of which represent opportunities and costs for Sama-Bajau's engagement in SSF (Clifton et al. 2014).

## 5.2 Sama-Bajau's Fluid Values in SSF

### 5.2.1 Spatial Mobility

The perception of the sea as an open space of living and trading, as well as the Sama-Bajau's notion of freely moving through that that space as performing their identity and generating their world (Pauwelussen 2015), stands in contrast to the politically fragmented seascapes we see on maps. As Cynthia Chou (2006, p. 1) notes, 'whichever translation one is inclined toward, the heart of the matter is that the space which others have named "Southeast Asia", comprising a number of bordered nation-states, is, in contrast, a space of deep emotional and personal meaning

for the sea nomads'. In the words of one Sama-Bajau from Mola village in the Wakatobi islands of Southeast Sulawesi in eastern Indonesia, 'the sea forms the basis of [our] life' (*laut merupakan dasar hidup*) (Stacey 2007). The islands and sea in which they occupy constitutes 'living spaces' (Chou 1997, p. 613) for the generally landless Sama-Bajau. The movement of Sama-Bajau is entirely over water, whether commuting in dugouts between neighboring households, visiting the 'mainland' or going fishing. As is the case in the outer islands of Wakatobi, their continued seaward orientation means little contact is sought with land groups, evident also in the lack of such physical infrastructure as boardwalks connecting some of the Sama-Bajau villages built over the intertidal zones to the land. Consequently, in these more offshore settlements often no further contact exists beyond daily morning visits to the island for fresh water collection and market sales (Steenbergen 2006).

Spatial movements vary according to age, social status and gender. The transition towards more sedentary lifestyles means that particularly children, women and the elderly no longer move over great distances as in the past. Most movement by these groups occurs in the immediate vicinity of the village. Women and children frequently glean reef flats for molluscs, squid, octopus or sea cucumber and engage in some fishing activities on nearby reefs. Young to middle-aged men typically do most of the fishing activities and, depending on the season, may travel extensively. During the monsoon season, when seas are rough, most of the fishing activity takes place within a day's travel of the village. In such cases, spatial movement patterns tend to revolve around particular types of fishing infrastructure that are of relevance to their fishing activity. In the case of line fishers, for example, fish aggregation devices (FADs) dictate much of their movement, while coral reef fishers involved in the live fish trade focus more upon fish collection pens. This fishing infrastructure may be common property resulting from government initiatives to bolster local village income, but most are private property associated with a middleman or fishing groups in the village.

During months of calmer seas fishers go on longer fishing trips, often in small groups, that can last anywhere between several weeks to several months. Women and children may accompany these small groups to assist in chores and live in settlements close to fishing grounds. Often such fishing trips target known productive distant-shore fishing grounds and may, for example, bring Sama-Bajau from the Wakatobi region to areas as far as northern Maluku and Papua to the east or towards Kupang and northern Australia to the south (Stacey 2007).

For at least a century, Indonesian Sama-Bajau men from Mola village in the Wakatobi region have engaged in long-distance migrations (*lama*) to a village in Rote Island, Nusa Tenggara Timor Province, and southwards to access fishing grounds in Northern Australian waters. In Rote island, Sama-Bajau fishers can use the village as a seasonal base for fishing forays. Some may reside there for months during the fishing season, whilst others may stay indefinitely. However, fishers still maintain close social and economic connections to their home villages and travel back and forth over the years for various social, economic and cultural purposes.

From Rote island, crews engage in fishing expeditions to the waters in the Timor Sea along the border region between Indonesia and Australia and are allowed to access the 'MoU Box' covering approximately 50,000 km<sup>2</sup> inside Australia's Exclusive Economic Zone under a 1974 Memorandum of Understanding (MoU) between the Australian and Indonesian governments. Access to this area is not assigned to any particular group of 'traditional' fishers from Indonesia, but on the basis of the type of technology used, which is restricted to sail-powered vessels only or *perahu* – a traditional form of trading-sailing watercraft used in eastern Indonesia. Target species have been varied, and in recent decades fishing there has focused on the shark fin trade (Stacey 2007).

Strong consideration is also given to specific access points to markets. With no ice-making facility on board, fish catches need to be sold directly, unless fish are salted or dried for storage, in which case lower market values can be expected. For that reason shark fin hunting has proven to be a lucrative and suitable activity for many Sama-Bajau fishers.<sup>5</sup> Boats could be at sea for months collecting and drying fins as they travelled vast distances. Yields could either be sold at the end of the season to a middleman or sold occasionally during the season when visiting particular ports on the way to cover immediate cost (Stacey 2007).

Although yet to be fully documented, major shifts have been observed in recent years in the type of technology used in this long-distance fishery, the level of continuing Sama-Bajau engagement and the species targeted. Part of this shift has been a major decline in the use of sail-powered vessels over the last ten years in Indonesian waters, and an increase in use of small motorised boats (*bodi*) for shark and tuna fishing. Ironically, the very existence of the MoU Box (despite the inequitable arrangements dictating the exclusive use of 'traditional' sail technology to access the area) has promoted the ongoing tradition of sailing *perahu* by the Sama-Bajau. However, non-compliance with the regulations and fishing in areas outside of the MoU Box area have resulted in apprehension and often forfeiture and destruction of these sailing vessels by the Australian government.

Spatial mobility is tied very much to issues of Sama-Bajau identity in the context of eastern Sabah as well. The long-settled Bajau, or *Bajau Tempatan* ('emplaced Bajau') are stationary, orienting to their terrestrial residences and occupations. Permanent settlement in eastern Sabah by populations who were *Bajau Laut* ('sea Bajau') transformed from being sporadic into being long-term with the establishment of Semporna as a trade centre in 1887 and the concomitant immigration regulations designed to curb piracy and encourage permanent residence (Warren 1971, p. 61). The descendants of those settled at this time are generally recognized as the Bajau Tempatan and known locally (and within Sabah as a whole) as simply the 'Bajau' or, when wishing to identify themselves more specifically, as the 'Bajau + [name of their island or village, i.e. a toponym]'. These people have remained identified with their places of habitation, which transformed into places of origin over the generations. They have oriented themselves to terrestrial livelihoods

---

<sup>5</sup>Recent price fluctuations in the global shark fin trade have had an impact on the extent to which sharks are being targeted.

including agriculture (e.g. cocoa cultivation and subsequently oil palm plantations), commerce (as marketers and entrepreneurs) and government (as civil service officials). They also maintain some orientation to the sea, including both seaweed cultivation, as a livelihood or an investment, and fishing, as a recreational pursuit for some but still as an occupational focus for others.

Those peoples who have continued to come to this area in their house boats (*lepa*) since that time of settlement have been known as the Bajau Laut, though some of these waves of migration have also been absorbed into the Bajau Tempatan populace. Many of these Bajau Laut have established 'water villages' (*kampung air*) on the fringes of Semporna town and in the intertidal regions of the islands in Darvel Bay and beyond. While many of those who have established these residences are fully sedentarised, some of these inhabitants have remained semi-sedentarised, as they will occasionally sally forth in the *lepa* that they have retained to moor off other islands in Darvel Bay and along the east coast of Sabah for fishing or visiting relatives for extended periods.

Besides the fully sedentarised and semi-sedentarised groups there remains a population of Bajau Laut still living on houseboats, which represented 22% of the population of Semporna in 2014 (Wood and Habibah n.d. [2014]). These populations have had primary mooring points in and around Semporna, but also moved about the east coast. Rarely, however, did an entire anchorage group move together. Instead, segments of these, not always constituted by the same boatholds, plied the coasts between Kudat in the north and Semporna in the southeast, depending upon fishing opportunities or the demands of patrons. Single boatholds often hived off to visit other islands, though if they had no kin or friends in anchorage groups or settlements off the islands they had to moor on their own alongside wharves or to the side of established mooring groups. Occasionally such boatholds proceeded back to Philippine waters, often to their places of origin on the islands of TawiTawi, such as Sitangkai, and other sites in the Sulu Archipelago or, in some cases, Palawan to the west. Travel to the Indonesian waters of North and East Kalimantan was more frequent in the past, as increased security patrols in the wake of the establishment of more marine protected areas have rendered these areas less hospitable for mooring (Kusumawati and Visser 2014). The recent establishment of the Eastern Sabah Security Zone and the night curfew on boats in Darvel Bay as a reaction to the 'Tanduo Incident', the so-called 'invasion' of eastern Sabah by forces from the Sulu Archipelago (Patail 2013), is another securitization measure that has inhibited Bajau Laut mobility along Sabah's eastern coast as well as nocturnal fishing activities (see Sect. 5.3.4), prompting some Bajau Laut to move once again to North Kalimantan, East Kalimantan and the Philippines.

### 5.2.2 Resource Use

Sama-Bajau livelihood mobility, in keeping with their fluid lifestyle, has maintained the transmission of language and knowledge about an extensive array of places and species across generations. Engagement in small scale fishing therefore retains

Indigenous knowledge and supports continuity of traditional ecological and cultural knowledge through intergenerational transfer.

Sama-Bajau households from eastern Indonesia undertake a range of maritime-related livelihood strategies as hunters and gatherers, fishers, sailors, boat builders, and traders. They hold an intimate knowledge of the inshore and offshore marine habitats and their associated resources, as well as of the connections among seasonal changes, winds, currents, tides, lunar cycles and navigation (Steenbergen 2006). They have specialised knowledge and skills in boat building and operate a range of types of paddle, sail and motorised watercraft which are essential to their existence (Stacey 2007).

Resource use patterns follow seasonal trends, both in restrictive terms through physical constraints and in progressive terms through supply. For example, the targeting of coral species is facilitated primarily by seasonal conditions that allow easy access to coral reefs. Similarly, fish-spawning events or octopus population blooms often attract fishing groups. In terms of preferred species, Sama-Bajau fishers from Sampela village in Wakatobi often target threadfin emperor (*Lethrinus genivittatus*), slender emperor (*Lethrinus variegates*), black rabbitfish (*Siganus fuscescens*) and honeycomb grouper (*Epinephelus merra*). The choice of technique influences the size of fish caught, with spear fishing allowing specific targeting of larger individuals than line or net fishing. However, catch per unit effort analysis indicates that net fishing provides greater returns than either line fishing or spear fishing (Pet-Soede et al. 2001).

Equally significant are stimuli triggered by market demands. Often middlemen—women or patrons would announce their particular interest in buying a specific species from fishers, instigating intensive species-targeted fishing behavior (for similar case see Schwerdtner Máñez and Paragay 2013). In eastern Indonesia larger companies involved in live reef fish trading typically install collection pens near settlements in remote, small archipelagos to store the live fish bought from local fishers until a larger cargo boat collects the catch. These developments drive intensive periods of targeted resource exploitation until demand subsides, seasonal conditions change, or market links are lost. These external agents also often provide gear for fishing. Influential market patrons, for example, may provide a boat and fishing gear (lines, hooks or nets depending on the fishing activity). Even materials for illegal practices, such as bomb fishing or compressor fishing, have at times been provided to groups of Sama-Bajau fishers in the Wakatobi islands of eastern Indonesia. By providing most of their total catch, these fishers paid off debts they had with that same middleman. Many Sama-Bajau fishers are often in some form of debt with such patron figures.

Among these same groups of Wakatobi-based Sama-Bajau fishers, there exists a strong sense of good-natured competition in fishing. Such competition, referred to locally as *'bebeta'*, is not measured in terms of economic gain that one is able to derive from fishing, but primarily through demonstrating the skills of a fisher (Steenbergen 2006). Exhibiting high skill in particular fishing activities has bolstered the status of some individuals in the village and brought about a deep-set sense of pride, while also stimulating a wider interest in certain fishing activities



(e.g. spear fishing) over others. Such efforts and investments by individuals in certain activities cannot be explained as economically rational (see also McGoodwin 2001).

The utilisation of the marine environment by Sama-Bajau goes well beyond simply subsistence fishing, as it provides house building materials, medicinal resources, waste disposal and an intrinsically familiar living environment. Their connection to the environment transcends this physical dependence to make up an intricate part of their spiritual belief system. Sama-Bajau worldviews encompass a deep and rich marine cosmology based on belief in spirits who inhabit the sea and exercise causal influences upon human beings and their environment. Ancestors (*Mbo*) govern the sea and all living beings within it. Wherever Sama-Bajau travel, their ancestors accompany them. In certain contexts fishing and sailing require the services of a person with specialised knowledge (*ilmu*) to interact with the spirit world. Similarly, particular species take on mythical forms. Stories of giant serpents and giant octopi are powerful narratives amongst the Sama-Bajau, and in many cases fishers present offerings to these mythical figures before fishing trips. Similarly, sea spirits are seen to dictate currents, winds and sea conditions. These higher forces have powers beyond the human realm to change courses of nature; they are seen to be primarily responsible for shifts and environmental changes. The Sama-Bajau, as mere mortals in an expanse of sea, do not perceive themselves as being able to change these larger processes. Meager catches by experienced fishers are thus understood as being the work of spirits rather than a possible consequence of overfishing or environmental damage. Additionally, a significant moral dimension has shaped peoples' perception of fishing success (*rezeki*), whereby a person's moral value, attitude and positive associations with cosmological beings (Stacey 2007) are deemed decisive. Moreover, optimistic and confident fishers are blessed with a higher catch, while pessimism merely leads to disappointing catches (Steenbergen 2006).

In keeping with the fluidity of their basic orientations and occupations, the Sama-Bajau exploit a variety of marine niches. As alluded to in Sect. 2.1, despite a division of labour in some tasks (e.g. those associated with seaweed cultivation), livelihood activities also display a certain complementarity, with women and children collecting small molluscs and shells closer to the shore, often for sale to tourists, while men are engaged in fishing activity. Given that reef areas are increasingly being closed to them as No-Take-Zones (NTZs) as part of zoning plans for marine parks, the Sama-Bajau are increasingly being forced to fish in the pelagic zones within these marine protected areas (MPAs) and the deeper waters outside these MPAs.

The increasing restrictions on reef fishing with the proliferation of MPAs Brunt (2013) have also catalysed significant out-migration to urban areas, with Sama-Bajau families in Sabah often living under bridges or in other marginal accommodation, as is the case in cities in the southern Philippines as well. Where men from these families can sometimes engage in searching for fish and molluscs in streams and other peripheral areas, women and children may sometimes have to enter the informal sector or engage in begging around tourist areas.

Those Sama-Bajau who continue to reside on their boats have greater opportunities to venture further afield for their livelihoods, sometimes fishing for tuna, shark, barracuda, and other larger fish in pelagic waters far from MPAs. The reported availability of fish resources is one factor that accounts for periodic trips between locations such as Kudat and Semporna along the coast of eastern Sabah. Such families are also more likely to be the ones moving across the border from Sabah to fishing grounds in north and east Kalimantan (e.g. Berau) and to the Sulu Archipelago, Philippines, where they can sometimes join anchorage groups in which they have kin.

Very few Sama-Bajau families in eastern Sabah fish only for subsistence. Most are engaged in domestic commodity production, but the recipients of their marine produce vary according to the type of harvesting in which they have engaged. Those engaged in pelagic fishing tend to sell their catch to the buyer sent out by an intermediate marketer, while those collecting abalone and sea cucumber tend to take their catch to towns for purchase by a Chinese intermediate marketer (Wood and Habibah 2014). Some molluscs and dried fish are sold directly by Sama-Bajau at the edges of markets and by women hawking such wares along the streets and at tourist-frequented restaurants. In some cases such items may still be bartered for items such as cassava flour, which remains the staple of choice (rather than rice) in many households and boatholds amongst Sama-Bajau in Semporna.

In recent years there have been many attempts by governments and NGOs to foster seaweed production as an alternative livelihood for coastal communities such as the Sama-Bajau. However, individual participation in this may be constrained, as in eastern Sabah where the majority of Bajau Laut are stateless (Clifton et al. 2014) and hence cannot apply for a cultivation license, which requires the applicant to hold a Malaysian identity card. However, some Bajau Laut have been informally allowed to proceed with opening up lines for seaweed cultivation in use zones of MPAs, although the majority of cultivable sites are already occupied by other ethnic groups including Suluk (Tausug) and Bajau Tempatan. Many Bajau Laut can only glean seaweed from the seabed below the more established plots after they have been harvested by the licensed operators from these other groups. The proliferation of seaweed cultivation has also significantly decreased the area available for shallow water fishing by Bajau Laut.

### **5.2.3 *Autonomy and Identity***

The issue of identity is one in which the ‘fluidity’ of the Sama-Bajau is centrally realized. Sama-Bajau identity is grounded partially in their dependence on the sea, as described previously, and also in their relative position amongst wider societal groups of which they have more recently become a part. However, their ability to move away from demanding patrons and difficult situations allows them retain a sense of autonomy despite their often low, indeed subservient, positions in local hierarchies. On the one hand, the Sama-Bajau are often (though certainly not

always) assimilated to other groups among whom they settled. In his writings on Sulawesi, Liebner (1998, p. 113) noted a 'rapid loss of Sama-Bajau characteristics, including language [...] as soon as the social and cultural environment changes to a milieu dominated by other ethnic groups'. Conversely, Nagatsu (2013) emphasized how the Bajau have emerged as a 'hybrid' and 'creole' group in such settings as the Kangean Archipelago north of Java. He notes that families who self-identify as Sama-Bajau are not necessarily descendants of Bajau ancestors, but may be of Mandar, Bugis or even Chinese ancestry. His argument thus parallels that mounted by Ivanoff (1997) for the Moken and Astuti (1995) for the Vezo of Madagascar, also a fishing group. Identity among the Bajau, Moken and Vezo (and perhaps other fishing groups) is not a matter determined by descent, but is a category that is performed through such choices as language use and livelihood strategies (e.g. fishing as an occupational badge); given the anchoring of identity in performance, it can be relinquished as well as asserted depending upon context, thus exhibiting a fundamental fluidity.

Sama-Bajau identity in Sabah is a particularly vexed topic, particularly due to the long historical trajectory of Bajau settlement in Sabah and the contemporary fluidity of identifications of the Bajau. Some authors (e.g. Yakin 2007) contrast the Land Bajau (*Bajau Darat*) of western Sabah, most of whom have adopted a terrestrially oriented agrarian adaptation, with the Sea Bajau (*Bajau Laut*) covering all the Sama-Bajau of eastern Sabah. However, such a coarse-grained differentiation fails to capture the internal contrasts of east coast Sama-Bajau populations. The process of sedentarisation initiated by the British North Borneo Chartered Company resulted in the incoming Bajau Laut identifying firmly with terrestrial locations and becoming the contemporary 'emplaced Bajau' or Bajau Tempatan of eastern Sabah, a process continued latterly by the Malaysian state in its efforts to 'civilise' the Bajau Laut. Carol Warren (1983) has shown how the Bajau Tempatan themselves have, since sedentarisation, re-organised their lives in accordance with a logic of capitalist accumulation that has brought them in line with the developmentalism of the Malaysian state. This has led to increasing individualization of their community life in accord with what we now recognise as neo-liberal values. Indeed, when referring in an ambivalent mixture of both disdain and longing to these sedentarised Bajau, often using the term *Bajau Kubang* (i.e. 'Assembled Bajau') generically for all the Bajau Tempatan (Ali 2010, p. 157), the Bajau Laut identify them as real Malaysians who are all working to send their children to university and become successful by state-recognised standards.

Bajau Laut differentiate among themselves according to their places of origin in the Philippines (e.g. Bajau Sitangkai, Bajau Simunul, etc.). These subgroupings are also recognizable by dialectal differences in intonation, lexicon, and other linguistic markers (Sather 1997), although both the Bajau Tempatan and other ethnic groups of eastern Sabah (e.g. Suluk) tend to identify the Bajau Laut more generically by the sing-song intonation of their pronunciation. Interestingly, Bajau Laut also will tend to differentiate among themselves in terms of length of time since their ancestors first came from their home islands in the Philippines. As such, they refer to more recent arrivals as 'Philippine people', a term that has behavioural connotations of

lawlessness and violence. Inevitably, the Bajau Laut will attribute fish dynamiting, cyanide use, and other destructive fishing practices to the more recently arrived ‘Philippine people’. The Bajau Laut thus replicate among themselves the type of (sub)ethnic hierarchy in which they are subordinated relative to the Bajau Tempatan and other ethnic groups of eastern Sabah.

### 5.2.4 *Kinship and Relational Ties*

Whereas social structures of anchorage groups developed around kinship relations and marital links in the past, today’s sedentary ways of life have produced more nuclear family arrangements centred around a house rather than a mobile houseboat (*lepa*). Yet, these more sedentarized family structures today are still strongly embedded in widely dispersed, even diasporic networks. Sama-Bajau in the Wakatobi village of Sampela, for example, maintain very close kinship ties, including arranged marital links, with all other Sama-Bajau settlements in Wakatobi. These networks, however, go well beyond Wakatobi to include Sama-Bajau groups in northern Sulawesi, Malaysia and the Philippines (Nolde 2009). Such ties are typically maintained and strengthened during annual longer fishing trips, when groups of fishers work together to fish similar areas that are often far from their respective family bases. Long-distance voyaging from home islands to fishing camps and settlements provides opportunities to maintain social relations with kin in settlements close to fishing grounds – boats departing from one village would rarely travel directly to fishing grounds without stopping at a village to visit kin and take on supplies (Stacey 2007).

The Sama-Bajau maintain a cognatic kinship system (Sather 1997), recognizing relatives on both the husband’s and wife’s side of the family. Bajau Laut in eastern Sabah tend to reside in augmented conjugal (or nuclear) family households, with the augmenting relative coming from either side, though up to four families or hearth groups can occupy a single household in rare cases. The small houses over the water on beachfronts or on the strand tend to have the smallest number of inhabitants, while houses of Bajau Laut who have moved on to land above the tidal mark or in peri-urban ‘water villages’ (*kampung air*) flanking towns like Semporna tend to have larger households, with the *lepa* boat-holds being intermediate in the number of boathold members they accommodate (Wood and Habibah n.d. [2014]).

Fellow household members and close neighbours in settlements or in anchorage groups retain a sense of obligation and responsibility (*magbuddi* or ‘love repaid by love’; Sather 1997, p. 238) toward each other, whether or not they are directly related by kinship, engaging in various quotidian exchanges (e.g. food-sharing) and attending each other’s life-cycle celebrations, at which they offer food and sometimes monetary gifts. These minor acts of reciprocity are termed *tabang-manabang*. The horizontal relationships sustained by such reciprocity thus complement the vertical patron-client ties that structure many of the commodity transactions of the Bajau, though both horizontal and vertical relationships may be conceptualized as

the creating and repaying of debts. Such relationships foster continual visiting among groups, with *lepa* boatholds often mooring off the beaches of islands and urban neighbourhoods where they have close kin residing.

However, such positive relationships are balanced by various relationships of enmity, which may be formalized in the dyadic link called *magbantah* ('becoming personal enemies'). These may result from failures to reciprocate, whether in economic matters or in the realm of etiquette and emotional expression (Sather 1997, p. 242). Such negative relationships may result in one party moving away, thus producing realignments in other house groups and anchorage groups and contributing in another way to the fluidity and mobility of Sama-Bajau groups.

### 5.3 Drivers of Transformation

In the previous section we identified the interlinked values that the Sama-Bajau associate with SSF, and how these are enacted or drawn upon at various spatial and temporal scales. In this section we discuss some of the main threats to Sama-Bajau SSF and the values they encompass. This will provide insights into what the potential cultural and social losses may involve, for both Sama-Bajau society and the wider multi-ethnic social constellations in which they are embedded, if these processes continue.

#### 5.3.1 Borderisation

Traditionally, the Sama-Bajau operated throughout the vast maritime region that Warren (2011) has identified as the Sulu Zone, 'a Southeast Asian economic region with a multi-ethnic pre-colonial Malayo-Muslim state, and an ethnically heterogeneous set of societies of diverse political backgrounds and alignments that could be set within a stratified hierarchy of kinship oriented stateless societies, maritime nomadic fishers and forest dwellers' (Fig. 5.3).

The Sama-Bajau were these 'maritime nomadic fishers', operating at the furthest maritime peripheries of this zone, as well as in the focal area of the Sulu Archipelago. However, this zone began to be fragmented as international trading companies and colonial powers began to demarcate boundaries constraining the movement of such groups as the Sama-Bajau. These boundaries have become less porous in the post-colonial era, as Malaysia, Indonesia and the Philippines have sought to exercise their national sovereignty within the confines of clearly delineated national boundaries.

Of course, the problem is that the actual political and economic dynamics of this interface region have not always corresponded to national imaginations of their sovereign boundaries. In particular, continuing civil unrest in the southern Philippines has led to successive waves of outmigration by Sama-Bajau and other ethnic groups

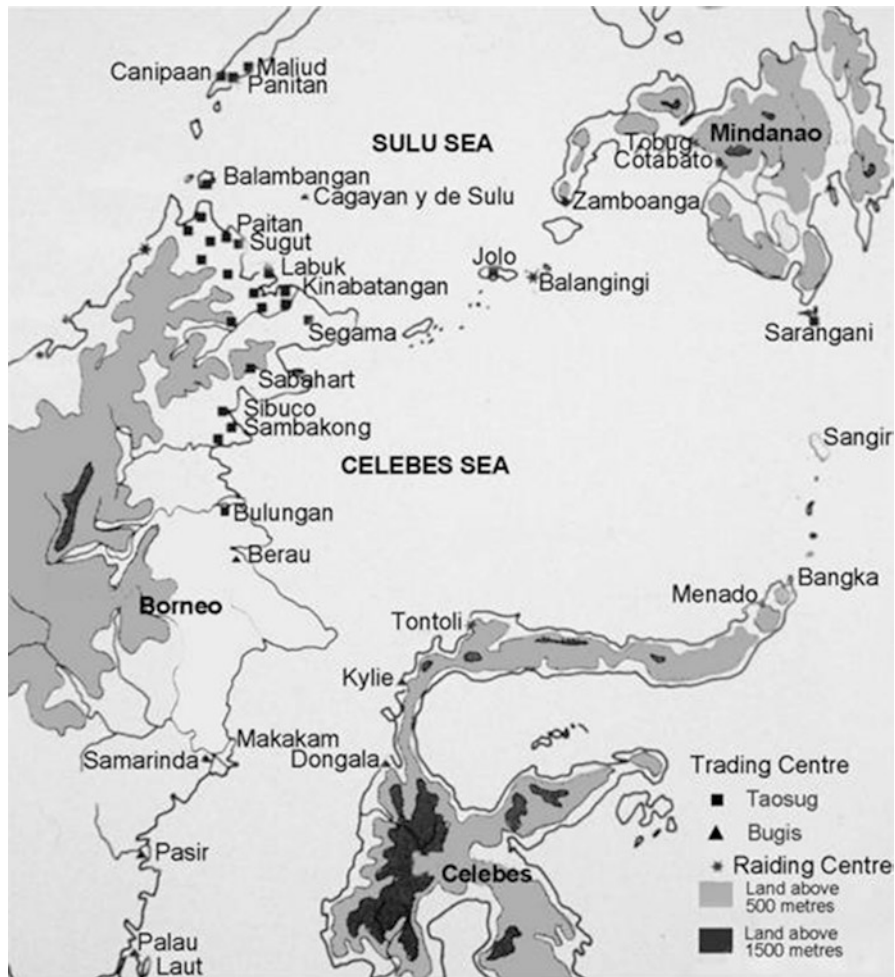


Fig. 5.3 Map of the Sulu Zone (J. F. Warren 2011)

from the Sulu Archipelago and southern Mindanao. Indeed, such continuing migration is the source of the persistent differentiation between Bajau Laut and Bajau Tempatan in eastern Sabah. Many of the Bajau Laut of eastern Sabah do not recognise the Malaysian/Philippines border in practical terms, often crossing it at will in small boats for family visits and trading purposes to the Sulu Archipelago. However, for the Malaysian government the border is very much a reality, and its agents regard such crossings as evidence of illegal incursions and a continuing alien presence in their midst. This situation is, of course, exacerbated by these Bajau Laut possessing no national documentation, as they are not citizens of either Malaysia or the Philippines. The consequences of their stateless status are explored in Sect. 5.3.4 below.

The Philippines-Indonesia interface has been a relatively unproblematic one, as most of the Sama-Bajau settled in Sulawesi and other parts of Indonesia seem to be descended from earlier waves of Sama-Bajau migration. In fact, there are no Sama-Bajau settlements in the locality of Indonesia closest to the Philippines, the Sangir-Talaude Archipelago (Mead and Lee 2007). The more problematic issues regarding Sama-Bajau whose homes are in Indonesia relate to their incursions across the southern border into Australian territorial waters (Stacey 2007; Fox 2009). Despite the well documented limitations of the MoU Box and a lack of specific rights for the Sama-Bajau to the fishery area therein (e.g. Stacey 2007), the MoU agreement is unique in that it recognises the historic interests of migratory Indonesian fishers and the tradition of fishing-sailing in north Australian waters which until 1979 were considered 'high seas' between the two countries. For decades this arrangement supported the tradition of building, maintaining and using sailing *perahu* and the associated social and cultural values and practices associated with that long distance voyaging tradition. Despite the constraints on development imposed by the MoU, the fishery has followed a process of evolution over time in terms of participation, target species and commodity chains (Stacey 2007). There are currently concerns over the sustainability of the fisheries operating inside the MoU Box (Prescott 2013) and the lack of management and rights allocated to specific groups that have operated in the area. It remains to be seen whether this migratory fishery will continue into the future in light of transforming processes and policies.

### 5.3.2 *Climate Change*

The maritime focus of Sama-Bajau livelihoods renders them particularly susceptible to the impacts of climate change. In the longer term, the expected increased frequency, intensity and unpredictability of weather phenomena in the region (Hoegh-Guldberg et al. 2009) may impact travel patterns and cause increased damage to housing and property in the coastal zone. More immediate impacts on Sama-Bajau communities are likely to arise from a loss of reef, seagrass and mangrove habitats utilised by target fish species. These losses have resulted from a combination of coral bleaching, elevated sea temperatures and seawater acidification (McCulloch et al. 2012), which in combination with stresses associated with over-fishing and other anthropogenic activities threaten 90% of reefs in Southeast Asia (Burke et al. 2012). The commonly held belief amongst Sama-Bajau that resource decline reflects divine influences that will be counterbalanced by similar intervention elsewhere reduces the capacity of Sama-Bajau communities to recognise such changes. Furthermore, the loss of mobility associated with sedentarisation, coupled with increased restrictions on movement, represents a diminution in their capacity to adapt to and absorb such impacts (Clifton 2015).

### 5.3.3 *International Environmental NGOs*

Small-scale fisheries such as that of the Sama-Bajau are increasingly impacted by the activities of international environmental NGOs (ENGOS) focusing on the management, control and regulation of resource use. These activities have been significantly enhanced following governments' adoption of schemes under the ENGO-led Coral Triangle Initiative (CTI), which now encompasses large areas of maritime Southeast Asia (Clifton 2009). These impacts are experienced differentially within the fishing community, contributing towards a diminution of social wellbeing. From a sample of 300 Sama-Bajau fishing expeditions recorded in the Wakatobi National Park in eastern Indonesia, just over 90% took place over seagrass, reef flat and reef wall habitats within 300 m of the coastline (Clifton, unpublished data). This reliance on inshore fisheries partly reflected the predominance of sailing boats rather than mechanised vessels in the sample, with few fishers possessing the type of powered boat needed for extended periods of deep offshore fishing. The resulting emphasis on nearshore habitats has engendered conflict with ENGOS whose priorities included a reduction of fishing effort in these environments. Secondly, ENGOS' initiatives impact upon Sama-Bajau women, in particular through the latter's involvement in gleaning, which is classified by ENGOS as a 'destructive' fishing practice alongside cyanide and bomb fishing (Pet-Soede and Erdmann 1998). Thirdly, ENGOS promote livelihood diversification of fishing communities such as the Sama-Bajau into 'alternative' activities such as tourism or seaweed cultivation. However, tourism opportunities are clearly limited to those with sufficient education, language skills or available capital, whilst employment in the sector is often influenced by kinship linkages and reciprocal relationships between community members (see also Steenbergen 2013). Furthermore, tourism opportunities may not necessarily align with cultural belief systems (e.g. inappropriate tourist clothing) or be detrimental to other livelihood strategies (Stacey et al. 2012). Seaweed cultivation is increasingly limited by physical shortages of suitable environments, with those able to invest and diversify earlier having taken full advantage of most available space, as is evident both in Wakatobi and Darvel Bay, Sabah. Finally, ENGOS' 'participatory' approaches specifically exclude local fishers such as the Sama-Bajau of eastern Indonesia and Bajau Laut of eastern Sabah from processes of policy design and implementation (Flower et al. 2013; Halim et al. 2008), preferring to prioritize managers and government representatives and thereby reinforcing existing elites and power imbalances within fishing communities.

### 5.3.4 *Selective Incorporation into Nation States*

Whilst the Sama-Bajau residing within Indonesian territorial waters are recognized as citizens, it is clear from the discussion in Sect. 5.2.3 that the status of Bajau Laut in eastern Sabah is far more precarious. Although the land-based Bajau Tempatan of



Sabah are all Malaysian citizens, the Bajau Laut remain largely stateless, as they are unable to obtain identity cards due to the general lack of requisite documentation such as birth certificates. This condemns them to discrimination and persecution at the base of the socio-economic hierarchy. Even attempts to provide 'floating schools' by aid agencies have been curtailed by local government on the supposed basis of such schools encouraging more 'alien' immigration. The formation of a Commission of Inquiry on Immigrants in Sabah in 2012, whose deliberations continued into 2014, has intensified pressure on the Bajau Laut in this regard, as the commission has questioned the granting of both citizenship and 'social visitor' status (e.g. by granting IMM 13 passes) to 'illegal aliens', most notably refugees from sectarian conflict in the Philippines, as a political ploy to heighten voter registration for the National Front (*Barisan Nasional*) during the Mahathir regime (Allerton 2014). Furthermore, measures undertaken as part of the establishment and operation of the Eastern Sabah Security Zone in reaction to the 'Tanduo Incident' have also led to an increased incidence of rounding up 'illegal aliens', including the Bajau Laut who have no documents, and deporting them back to their alleged home country (e.g. the Philippines). Government officials interpret 'Bajau Laut' as Philippine people even though the contemporary Bajau Laut, and in many cases their ancestors who have long resided along the eastern coast of Borneo, consider Sabah their home.

### 5.3.5 *Marketization*

Different kinds of market links have historically formed important connections between Sama-Bajau fishing societies and other societies. For centuries Bajau have been part of trading networks within the Sulu Zone, supplying products from its maritime peripheries destined for regional and international markets (Warren 1971). Inclusion of the Sama-Bajau in commodity chains and market networks is thus nothing new, with contemporary trade connecting remote resource collection nodes and major export hubs such as Surabaya, Makassar, Kupang and Dobo in Indonesia. Beyond primary roles associated with access to these nodes (e.g. selling their fish catch or collecting catch from groups of fishers), the majority of Sama-Bajau play no meaningful role in any post-processing. In part, this is due to the established nature of economic networks, but arguably also due to the reluctance amongst many Sama-Bajau to venture too far from a life at sea.

The influence of globalising market systems has, however, transformed the nature of competition being experienced by the Sama-Bajau. While they have long exploited niches unavailable to other fishers due to their remote location or reliance on local knowledge, improvements in technology and increasing demand have enabled other fishing societies to compete with the Sama-Bajau in these niches (Adhuri and Visser 2007; Fox 2009; Fox et al. 2009).

## 5.4 Conclusion

In this chapter we have presented the Sama-Bajau as a particular group of small-scale fishers in Southeast Asia who draw different facets of social wellbeing from their engagement in SSF. Engaging in mobile small-scale fishing activity fulfills more than simply a livelihood need for the Sama-Bajau. To make sense of this we have analyzed these social wellbeing facets through what we referred to as ‘fluid values’ in Sect. 1.2, which we distinguish along four main value dimensions – spatial mobility, resource use, autonomy and identity, and kinship and relational ties. Sama-Bajau wellbeing is manifest across different spatial scales – at a local or household level, as part of subregional membership of language groups, regionally and transboundary across national states, and within drivers of globalisation. Understanding these values shows furthermore how fishing is a fundamental part of the social fabric among Sama-Bajau groups. It is viewed not only as a source of material needs, but also as an activity binding extensive social and economic networks and as a performative foundation of the identity that some Sama-Bajau claim when describing their contemporary selves. Recent restrictions on mobility and access to historic fishing grounds have entailed the loss of cultural knowledge, mythic and practical, concerning topography, species, and other aspects of the marine environment that constitute the living heritage of the Sama-Bajau community (Lowe 2003, 2006). Over the longer term, this kind of place-specific cultural knowledge across scales cannot be effectively transmitted without sustained relationships and symbolic exchanges between places and people.

Whereas much of the focus on management and governance design around SSF systems has targeted specific fisheries, this chapter emphasises the importance of understanding values and particular characteristics (i.e. the fluidity of the Sama-Bajau way of life in terms of their spatial mobility, movement among networks at different scales, identity transitions, and adaptability to a range of marine contexts, market demands, and socio-political formations) of groups involved across many SSF systems. The various dynamics and facets of Sama-Bajau social wellbeing discussed in this chapter, and the implications they have for effective and broad local participation in SSF management, indicate the strong interconnections that constitute SSF. We argue that this interconnectedness goes beyond technical ecological considerations of SSF often cited in relation to fish lifecycles and distribution patterns to encompass cultural, social, political and economic dimensions among groups such as the Sama-Bajau and other mobile Indigenous fishing groups in insular Southeast Asia.

We have shown that there are extensive pressures undermining Sama-Bajau fishing practices and their way of life, which in turn erode social wellbeing values. The majority of Sama-Bajau in Southeast Asia are generally marginalised Indigenous groups, and in many instances their contributions as fishing peoples are not recognised by the region’s governments. In many cases they remain on the outskirts of mainstream societies in the countries they inhabit and are often stigmatized as being unruly, lazy and backward aliens. It is unlikely, then, that mainstream societies will

recognise the societal loss associated with the erosion of Sama-Bajau SSF and the consequent transformations in Indigenous knowledge, cultural practices and diversity. However, loss of the fundamental values that underpin Sama-Bajau culture and social wellbeing will have significant impact beyond obvious implications for the Sama-Bajau themselves. In a country such as Indonesia, for example, which prides itself on the national motto *Bhinneka Tunggal Ika* ('Unity in Diversity') and the concept of *Nusantara* as an archipelago where seas connect society (Adhuri 2003), the loss of a unique maritime way of life such as that of the Sama Bajau is an erosion of the very principle that constitutes a nation's desired identity. Moreover, at a local level many rural fish markets in areas where Sama-Bajau reside are largely stocked by fishing activities from these Sama-Bajau groups and provide land-based ethnic groups with important sources of nutrition. Furthermore, marine conservation and sustainable fisheries management initiatives across the region increasingly recognise that effective and locally relevant measures need to flow from increased ground-level participation that involves the co-production of knowledge and practices that draw from western technical management principles and local traditional knowledge. The presence of the Sama-Bajau at sea and their knowledge of these seas should be acknowledged as a significant asset not only for any marine resource management initiative, but also for the national identities of the region's states.

## References

- Aburto J, Thiel M, Stotz W (2009) Allocation of effort in artisanal fisheries: the importance of migration and temporary fishing camps. *Ocean Coast Manag* 52(12):646–654. doi:[10.1016/j.ocecoaman.2009.10.004](https://doi.org/10.1016/j.ocecoaman.2009.10.004)
- Adhuri DS (2003) Does the sea divide or unite Indonesia? Ethnicity and regionalism from a maritime perspective. In: *Resource management in Asia-Pacific*. Working Paper No 48. The Australian National University (ANU), Canberra, pp 1–16
- Adhuri DS, Visser LE (2007) Fishing in fishing out: transboundary issues and the territorialization of blue space. *Asia Pac Forum* 36:112–145
- Allerton C (2014) Statelessness and the lives of the children of migrants in Sabah, East Malaysia. *Tilburg Law Rev: J Int Eur Law* 19(1):26–34
- Ali I (2010) Since birth till death, what is their status: a case study of the Sea Bajau in Pulau Mabul, Semporna. Unpublished Paper. *Res World J Arts Sci Comm* 1:156–166. Accessed at [http://www.researchersworld.com/vol1/Paper\\_16.pdf](http://www.researchersworld.com/vol1/Paper_16.pdf)
- Anderson J (1890) *The Selungs of the Mergui Archipelago*. Trubner and Co., London
- Astuti R (1995) 'The Vezo are not a kind of people': identity, difference and 'ethnicity' among a fishing people of western Madagascar. *Am Ethnol* 22(3):464–482
- Brunt H (2013) 'Stateless stakeholders': see but not heard? The case of the Sama Dilaut in Sabah, Malaysia. Unpublished MA Thesis, University of Sussex, Sussex
- Burke LM, Reynter K, Spalding M, Perry A (2012) *Reefs at risk revisited in the coral triangle*. World Resources Institute (WRI), Washington, DC
- Chou C (1997) Contesting the tenure of territoriality: the Orang Suku Laut. *Bijdragen tot de Taal-, Land- en Volkenkunde* 153(4):605–629. doi:[10.2307/27865391](https://doi.org/10.2307/27865391)
- Chou C (2003) *Indonesian sea nomads: money, magic, and fear of the Orang Suku Laut* (RoutledgeCurzon - International Institute for Asian Studies (IIAS), Asian studies series). Routledge Curzon, London/New York

- Chou C (2006) Research trends on Southeast Asian sea nomads. *Kyoto Rev SE Asia*:1–11
- Chou C, Wee V (2002) Tribalism and globalisation: the Orang Suku Laut and the “Growth Triangle” – a contested environment. In: Benjamin G, Chou C (eds) *Tribal communities in the Malay world*, IIAS and ISEAS, Singapore, pp 294–371
- Clifton J (2009) Science, funding and participation: key issues for marine protected area networks and the coral triangle initiative. *Environ Conserv* 36(2):91–96
- Clifton J, Majors C (2012) Culture, conservation and conflict: perspectives on marine protection amongst the Bajau of south-east Asia. *Soc Nat Resour* 25(7):716–725
- Clifton J, Acciaoli G, Brunt H, Dressler W, Fabinyi M, Singh S (2014) Statelessness and conservation: exploring the implications of an international governance agenda. *Tilburg Law Rev* 19(2014):80–88
- Clifton J (2015) Maritime ecocultures: Bajau communities in eastern Indonesia. In Bohhm S, Bharucha ZP, Pretty J (eds) *Ecocultures: blueprints for sustainable communities*. pp 716–725
- Coulthard S (2012) What does the debate around social wellbeing have to offer sustainable fisheries? *Curr Opin Environ Sustain* 4(3):358–363. doi:[10.1016/j.cosust.2012.06.001](https://doi.org/10.1016/j.cosust.2012.06.001)
- Elliott G, Mitchell B, Wiltshire B, Manan A, Wismer S (2001) Community participation in marine protected area management: Wakatobi National Park, Sulawesi, Indonesia. *Coast Manag* 29(4):295–316. doi:[10.1080/089207501750475118](https://doi.org/10.1080/089207501750475118)
- Fabinyi M (2013) Social relations and commodity chains: the live reef fish for food trade. *Anthropological Forum* 23(1):36–57. doi:[10.1080/00664677.2012.748645](https://doi.org/10.1080/00664677.2012.748645)
- Flower KR, Atkinson SR, Brainard R, Courtney C, Parker BA, Parks J et al (2013) Toward ecosystem-based coastal area and fisheries management in the Coral Triangle: integrated strategies and guidance. Coral Triangle Initiative Support Program for the U.S. Agency for International Development, Jakarta
- Fox JJ (1977) Notes on the Southern voyages and settlements of the Sama-Bajau. *Bijdragen tot de Taal-, Land- en Volkenkunde* 133(4):459–465. doi:[10.2307/27863151](https://doi.org/10.2307/27863151)
- Fox JJ (2000) Maritime communities in the Timor and Arafura Region: some historical and anthropological perspectives. In: O’Conner S, Veth P, Balkema AA (eds) *East of Wallace’s line: studies of past and present maritime cultures of the Indo-pacific Region*, vol 16. CRC Press, Rottersam, pp 337–356., Vol. *Modern Quaternary Research in Southeast Asia*
- Fox JJ (2009) Legal and illegal Indonesian Fishing in Australian Waters. In: Cribb R, Ford M (eds) *Indonesia beyond the waters edge: managing an archipelagic state*. Institute of Southeast Asian Studies, Singapore, pp 195–220
- Fox JJ, Adhuri DS, Therik T, Carnegie M (2009) Searching for a livelihood: the dilemma of small-boat fishermen in eastern Indonesia. In: Resosudarmo BP, Jotzo F (eds) *Working with nature against poverty: development, resources and the environment in eastern Indonesia*. Institute of Southeast Asian Studies, Singapore, pp 201–225
- Gough I, McGregor JA (2007) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge/New York
- Halim A, Soekirman T, Ramono W (2008) Involving resource users in the regulation of access to resources for the protection of ecosystem services provided by protected areas in Indonesia. In: Sodhi NS, Acciaoli G, Erb M, Tan AK-J (eds) *Biodiversity and human livelihoods in protected areas: case studies from the malay archipelago*. Cambridge University Press, Cambridge, pp 122–138
- Hoegh-Guldberg O, Hoegh-Guldberg H, Veron JEN, Green A, Gomez ED, Lough J et al (2009) The coral triangle and climate change: ecosystems, people and societies at risk. World Wide Fund for Nature (WWF) and University of Queensland, Brisbane, pp 1–34
- Ivanoff J (1985) L’epopée de Gaman: conséquences des rapports entre Moken/Malais et Moken/Birmans. *Asie du Sud-Est et Monde Insulindien* 16:173–194
- Ivanoff J, Cholmeley FN, Ivanoff P (1997) Moken: sea-gypsies of the Andaman Sea, post-war chronicles. Cheney, Bangkok
- Kusumawati R, Visser LE (2014) Collaboration or contention? Decentralised marine governance in Berau. *Anthropological Forum* 24(1):21–46

- Lenhart L (1995) Recent research on Southeast Asian sea nomads. *Nomadic Peoples* 36:245–260
- Lenhart L (1997) Orang Suku Laut Ethnicity and Acculturation. *Bijdragen tot de Taal-, Land- en Volkenkunde* 153(4):577–604. doi:[10.2307/27865390](https://doi.org/10.2307/27865390)
- Lenhart L (2002) Orang Suku Laut Identity: the construction of ethnic realities. In: Benjamin G, Chou C (eds) *Tribal Communities in the Malay world*. IIAS and ISEAS, Singapore, pp 293–317
- Liebner H (1998) Four oral versions of a story about the origin of the Bajo people of southern Selayar. In: Robinson K, Paeni M (eds) *Living through histories: culture, history and social life in South Sulawesi*. Australian National University, Canberra, pp 107–133
- Lowe C (2003) The magic of place: Sama at sea and on land in Sulawesi, Indonesia. *Bijdragen tot de Taal-, Land- en Volkenkunde* 159(1):109–133. doi:[10.2307/27868004](https://doi.org/10.2307/27868004)
- Lowe C (2006) *Wild profusion: biodiversity conservation in an Indonesian Archipelago* (Information series). Princeton University Press, Princeton
- Majors C (2008) Seas of discontent: conflicting knowledge paradigms within Indonesia's marine environment arena. In: Sodhi NS, Acciaoli G, Erb M, Tan AK-J (eds) *Biodiversity and human livelihoods in protected areas: case studies from the Malay Archipelago*. Cambridge University Press, Cambridge, pp 241–265
- May D (2005) Folk taxonomy of reef fish and the value of participatory monitoring in Wakatobi National Park, Southeast Sulawesi, Indonesia. *SPC Tradit Mar Resour Manag Knowl Inf Bull* 2005(18):18–35
- McCulloch M, Falter J, Trotter J, Montagna P (2012) Coral resilience to ocean acidification and global warming through pH up-regulation. *Nat Clim Chang* 2(8):623–627. doi:[10.1038/nclimate1473](https://doi.org/10.1038/nclimate1473). doi:<http://www.nature.com/nclimate/journal/v2/n8/abs/nclimate1473.html#supplementary-information>
- McGoodwin JR (2001) Understanding the cultures of fishing communities: a key to fisheries management and food security, FAO Fisheries Technical Paper. Food and Agriculture Organization of the United Nations, Rome, p 287
- Mead D, Lee M-Y (2007) Mapping Indonesian Bajau communities in Sulawesi, S, 2007–019. SIL Electronic Survey Reports. Summer Institute of Linguistics (SIL), Dallas, pp. 45. The Sama-Bajau in and around Sulawesi: Basic data on their population and distribution of the villages (2007). Kyoto University. <[http://sulawesi.cseas.kyoto-u.ac.jp/download\\_final.html](http://sulawesi.cseas.kyoto-u.ac.jp/download_final.html)>. Accessed 8 Dec 2012
- Nagatsu K (2007) The Sama-Bajau in and around Sulawesi: basic data on their population and distribution of the villages. Viewed 8 Dec 2012
- Nagatsu K (2013) Jalan Tikus on the sea: persisting maritime frontiers and multi-layered networks in Wallacea. Asian CORE Program Seminar “Interface, Negotiation, and Interaction in Southeast Asia, Center for Southeast Asian Studies, Kyoto
- Nimmo HA (1968) Reflections on Bajau history. *Philipp Stud Hist Ethnogr Viewpoints* 16(1):32–59
- Nolde L (2009) “Great is our relationship with the sea”: charting the maritime realm of the Sama of Southeast Sulawesi, Indonesia. *Explor Vol*, 9(Spring 2009), 19.
- Pallesen AK (1985) Culture, contact and language convergence. In: L. S. P. Special monograph issue 24, Linguistic society of the Philippines, Manila
- Patail AG (2013) Putting to rest the claim to Sabah by the self-proclaimed Sultanate of Sulu. In: *Terjemahan & Buku Malaysia*. Razak School of Government and Institute, Kuala Lumpur
- Pauwelussen AP (2015) The moves of a Bajau middlewoman: understanding the disparity between trade networks and marine conservation. *Anthropol Forum* 25(4):329–349. doi:[10.1080/00664677.2015.1054343](https://doi.org/10.1080/00664677.2015.1054343)
- Pet-Soede L, Erdmann MV (1998) An overview and comparison of destructive fishing practices in Indonesia. *SPC Live Reef Fish Inf Bull* 4:28–36
- Pet-Soede C, van Densen WLT, Hiddink JG, Kuyl S, Machiels MAM (2001) Can fishermen allocate their fishing effort in space and time on the basis of their catch rates? An example from Spermonde Archipelago, SW Sulawesi, Indonesia. *Fish Manag Ecol* 8(1):15–36. doi:[10.1046/j.1365-2400.2001.00215.x](https://doi.org/10.1046/j.1365-2400.2001.00215.x)

- Prescott J (2013) Unpublished report of MoU box research workshop. In: AFMA (ed), MoU Box Research Workshop, Bali, Indonesia, 14–15 May 2013, pp. 10
- Saat G (2010) Sama-Bajau dalam kanca urbanisasi: Pengalaman di Teluk Bone, Sulawesi Selatan. Penerbit Universitas Malaysia Sarawak (UNIMAS), Kota Samarang
- Sather C (1995) Sea nomads and rainforest hunter-gatherers: foraging adaptations in the Indo-Malaysian Archipelago. In: Bellwood PS, Fox JJ, Tryon DT, Australian National University. Comparative Austronesian Project (eds) *The Austronesians: historical and comparative perspectives*. Department of Anthropology as part of the Comparative Austronesian Project, Research School of Pacific and Asian Studies, Australian National University, Canberra, pp 245–286
- Sather C (1997) *The Bajau Laut: adaptation, history, and fate in a maritime fishing society of south-eastern Sabah*. Oxford University Press, Oxford
- Schwerdtner Máñez K, Paragay SH (2013) First evidence of targeted moray eel fishing in the Spermonde Archipelago, South Sulawesi, Indonesia. *Traffic Bull* 25(1):1–7
- Sen A (1999) *Development as freedom*, 1st edn. Knopf, New York
- Sopher DE (1977) *The sea nomads: a study of the maritime boat people of Southeast Asia*. National Museum, Singapore
- Stacey NE (2007) *Boats to burn: Bajo fishing activity in the Australian fishing zone (Asia Pacific Environment)*. The Australian National University (ANU) Press, Canberra
- Stacey NE, Karam J, Meekan MG, Pickering S, Ninef J (2012) Prospects for whale shark conservation in Eastern Indonesia through Bajo traditional ecological knowledge and community-based monitoring. *Conserv Soc* 10(1):63–75
- Steenbergen DJ (2006) People in policy and policy in people: an actor-oriented analysis of marine & coastal zone management, The Case of Wakatobi National Park, S.E. Sulawesi in Indonesia. Wageningen University, Wageningen
- Steenbergen DJ (2013) The role of tourism in addressing illegal fishing: the case of a dive operator in Indonesia. *Contemporary Southeast Asia* 35(2):188–214
- Verheijen JAJ (1986) *The Sama/Bajau Language in the Lesser Sunda Islands*. Department of Linguistics, Research School of Pacific Studies, Australian National University, Canberra
- Warren JF (1971) *The North Borneo Chartered Company's administration of the Bajau, 1878–1909; the pacification of a maritime, nomadic people*, by James F. Warren (Vol. 22, *Papers in international studies*. Southeast Asia series, Vol. Accessed from <http://nla.gov.au/nla.cat-vn1019944>). Ohio University, Center for International Studies, Southeast Asia Program, Athens
- Warren C (1983) *Identity and change: the experience of the Bajau Laut of East Malaysia, 1969–1975*. South East Asian monograph series, 14
- Warren JF (2011) *The global economy and the Sulu Zone: connections, commodities and culture. Studies on the History of Exchange Relations in the East Asian World, Crossroads*. [http://www.eacrh.net/ojs/index.php/crossroads/article/view/12/Vol3\\_Warren\\_html3](http://www.eacrh.net/ojs/index.php/crossroads/article/view/12/Vol3_Warren_html3)
- Wee V (1985) *Melayu: hierarchies of being in Riau*. Unpublished PhD thesis, Australia National University, Canberra
- Weeratunge N, Béné C, Siriwardane R, Charles A, Johnson D, Allison EH et al (2013) Small-scale fisheries through the wellbeing lens. *Fish Fish* 15(2):255–279. doi:10.1111/faf.12016
- Wood E, Habibah Y (n.d. [2014]) *Bajau Laut customs, viewpoints and perceptions concerning marine resource use in Semporna*. Sabah: Unpublished report
- Yakin HSM (2007) *Identiti budaya etnik Palau' di Semporna*, Sabah: Konservasi, adaptasi dan transformasi budaya. Occasional Paper no. 7, Penerbit UMS, Kota Kinabalu

**Natasha Stacey** is an applied anthropologist with interests in maritime anthropology in Indonesia and sea nomadic populations in Southeast Asia. She is currently Associate Professor at the Research Institute for the Environment and Livelihoods, Charles Darwin University leading a multidisciplinary group of scientists and postgraduate scholars working on natural resource management and livelihood research projects in Australia and Asia. Her recent research projects have included improving coastal livelihoods, food security and fisheries management in the cross – bor-

der regions of the Arafura - Timor Seas; Building Indigenous science capacity for aquaculture enterprise development; and Rehabilitating blue carbon mangrove habitats in Indonesia.

**Dirk J. Steenbergen** is a post-doctoral research fellow at the Research Institute for the Environment and Livelihoods, at Charles Darwin University. His research focuses on aspects of local governance of coastal resources in the Global South. He maintains a particular interest in participatory forms of resource management, sustainable livelihoods and food security in relation to small-scale fisheries. His current research activities concentrate on eastern Indonesia and Timor Leste; however, his experience in research and applied projects with indigenous communities over the last 10 years extends across Southeast Asia and Southern Africa.

**Julian Clifton** is a geographer at the University of Western Australia. His research focuses upon the design and implementation of marine policy in developing countries and small island developing states. He is particularly interested in the interaction between conservation initiatives and local user groups, specifically small scale fishers and marginalised communities. His research explores how these conflicts are manifest in resilience and vulnerability with reference to social capital and food security. He is also involved in research examining how government policies to support community-based tourism and ecotourism affect coastal residents' livelihoods with a specific focus on Indonesia and Myanmar.

**Greg Acciaoli** teaches in Anthropology and Sociology, Asian Studies, and International Development at The University of Western Australia. His PhD research concentrated on the relations of migrant fishers and Indigenous agriculturalists in Central Sulawesi. Over the last decade his research has focussed upon contestations over resources around protected area settings, both terrestrial and marine. These sites have included the Lore Lindu National Park in Central Sulawesi and Kayan Mentarang Park in North Kalimantan, as well as Tun Sakaran Marine Park in southeastern Sabah. He has also investigated the social impact of the proliferation of oil palm plantations in Central Kalimantan.

## Chapter 6

# How to Capture Small-Scale Fisheries' Many Contributions to Society? – Introducing the 'Value-Contribution Matrix' and Applying It to the Case of a Swimming Crab Fishery in South Korea

Andrew M. Song

**Abstract** To facilitate a systematic and comprehensive capturing of small-scale fisheries' societal contributions, this chapter proposes a 'value-contribution matrix' and applies it to the case of a swimming crab fishery in South Korea. In the matrix, objective, subjective, and relational values are identified for the major stakeholder categories such as fishers, a coastal community and the wider society. Through consideration of these values, multifaceted contributions of the swimming crab fishery were examined and their governance implications drawn. Around the world, small-scale fisheries have been unduly dismissed in policy despite their ubiquity. This analytical tool could prove to be an accessible and pragmatic heuristic for highlighting their varied (both positive and negative) contributions. Learning about which values are being emphasized or neglected, and for whom, and the consequences they generate for stakeholders' wellbeing, could point to alternate ways of creating a more governable fishery and help to alleviate fishery sustainability challenges.

**Keywords** Small-scale fisheries • Social wellbeing • South Korea • Swimming crab • Valuation • Values • Value-contribution matrix

---

The initial draft of this chapter was written when the author was a postdoctoral visitor at the York Centre for Asian Research, York University, Toronto, Canada

A.M. Song (✉)

ARC Centre of Excellence for Coral Reef Studies, James Cook University,  
Townsville, Australia

WorldFish, c/o ARC Centre of Excellence for Coral Reef Studies, Townsville, Australia  
e-mail: [andrewmsong@gmail.com](mailto:andrewmsong@gmail.com); [andrew.song@jcu.edu.au](mailto:andrew.song@jcu.edu.au)



## 6.1 Introduction

The governance of fisheries around the world is confronting significant challenges (McGoodwin 1990; Hutchings and Reynolds 2004; Islam and Tanaka 2004; Allan et al. 2005; Badjeck et al. 2010), exacerbated by urgent issues such as stock depletion, ecosystem degradation, and dwindling fisher population and community failure. Some scholars have argued that the difficulties in governance are pervasive, at least partially because fisheries of a ‘smaller’ kind are frequently overlooked and dismissed in mainstream policy compared to their larger-scale counterparts (St. Martin 2006; Zeller et al. 2006; Jacquet and Pauly 2008; Chuenpagdee 2011). For instance, funding and subsidies as well as resolution of sectoral conflicts have historically favoured the modern, industrialized fishing industry. In addition, community-based fisheries have been relegated to the periphery in essential economic discussions, regarded “only as a site of economic impact but never as a constituent of the economic itself” (St. Martin 2006, p.169). Hence, the argument suggests that fisheries policy based on the marginalization, if not the total omission, of the small-scale sector has put itself in a position unable to effectively deal with the diverse and complex realities that pervade fisheries.

The idea that small-scale fisheries merit adequate attention gains further credence when taking up a broader set of definitions, suggested, for instance, by The FAO (2005). Whether considering the commitment to fishing (i.e., both full-time and part-time/seasonal work), marketing mechanism (i.e., subsistence to global trade), formality of fishing enterprise (i.e., self-employed to incorporated), or attached meaning (i.e., a source of cultural identity and community cohesion to a source of wage income and business opportunity), small-scale fisheries encompass the vast majority of fishing types and people who live and occupy the coastal and inland aquatic space in both the Global North as well as the South (Song and Khan 2011). In terms of employment, more than 90% of about 34 million active fishers in the world are small-scale (Béné 2005; FAO 2010), while illustrative statistics indicate an annual catch for human consumption from small-scale fisheries to be nearly 30 million tons, rivalling that of the larger, industrial sector (Pauly 2006).

Despite such ubiquitous occurrence and global significance, it has proven rather difficult to monitor and to properly appraise the values of small-scale fisheries, due in part to their relatively dispersed, de-centered and self-governing nature (see Chuenpagdee et al. 2006; Lunn and Dearden 2006). As a result, their actual, perceived, and potential societal contributions may thus be neglected and underappreciated, representing a gap in fisheries research as well as confounding the effort towards effective governance of them. The question then becomes: how can we better capture and highlight the important contributions that they make to our society? As one way of responding to this shortcoming, this chapter proposes an analytical guideline which could help facilitate an articulation of small-scale fisheries’ contributions. There are two main aspects to the conceptualization of this guideline (which I call a ‘value-contribution matrix’). First, as a way of reflecting the diversity inherent in small-scale fisheries (Jentoft and Chuenpagdee 2015), it approaches

*contributions* from multiple angles, namely, 'objective', 'subjective' and 'relational' dimensions stemming from the social wellbeing approach (see Coulthard et al. 2011). Secondly, it links these varied contributions with the notion of social values. By establishing a link to and drawing on the useful set of literature on values, this connection provides a heuristic means with which to pragmatically organize and assess different types of contributions. Consequently, the guideline presents three types of values (i.e., objective, subjective and relational values) and takes the form of a matrix, through which the contributions of small-scale fisheries can be systematically understood and made accessible to stakeholders including policy makers and the research community.

To demonstrate the design and application of the matrix, a case study approach was employed. This chapter looks at a small-scale swimming crab fishery that takes place from an island called Yeonpyeong and is part of a larger South Korean coastal fishing fleet targeting that species. Fishing has long been a key industry and a prominent part of the island's history. However, a general downward trend in catch volume in recent years has raised concerns about the sustainability of the crab fishery. Also, while swimming crab remains a popular seafood in the country and there are other significant economic, cultural and politico-military factors that make this fishery important at the local and national level, the values of this fishery to the society and the contributions it makes are, nevertheless, not very well understood. Hence, this particular fishery represents one relevant case through which to examine and highlight small-scale fisheries' societal merit.

In what follows, the conceptualization of 'contribution via value' together with the matrix to guide its assessment is first explained. This is followed by a brief description of the case study and the methods used. I then present the results and discussion, focusing on the various contributions the fishery makes and their governance implications. Finally, I offer a reflection of the approach advanced in this chapter and end with a concluding summary.

## 6.2 Conceptualization of the Value-Contribution Matrix

### 6.2.1 *The Meaning of Value and Its Link to Contribution*

In assessing contribution of A to B, one can perhaps reframe the query by asking "what value does A offer to B?" In this way, value serves as a proxy concept with which to analytically treat the idea of *contribution*. As Johnson (this volume) explains that value has a broader connotation than contribution, value in fact has been discussed in a number of different ways in social sciences with varying foci. A wide range of disciplines, such as environmental philosophy (e.g., Kellert 1993; Rolston 1994), social psychology (e.g., Rokeach 1973; Stern et al. 1998), anthropology (e.g., Graeber 2001; Satterfield 2001), ecological economics (e.g., Brown 1984; Chan et al. 2011), "mainstream" economics (e.g., Pearce and Turner 1990;

Freeman 1993) all give details to what value means and how it is made applicable. It therefore becomes a useful task to distinguish how this chapter (and perhaps this volume to a greater extent) treats the meaning of value and its relation to the idea of contribution.

First, understanding contribution through value emphasizes the meaning of a worth or merit being given to an object. In other words, they are values ‘assigned’ by us as conscious beings. These are, at least in theory, distinct from ‘held’ values, which refer to underlying virtues that prioritize modes of one’s conduct or desirable qualities, such as benevolence and honesty (Brown 1984; Satterfield and Kalof 2005). Assigned values have been typically measured through monetary valuation techniques which include contingent valuation methods. However, there is also a growing recognition of the need for qualitative and reflective approaches that obtain “thick” value descriptions (e.g., pencil-and-paper tasks and open-ended interviews), which may be more adequate in accounting for non-market-based, environmentally-conscious and culturally-derived values such as ecosystem conservation and attachment to place (see Buijs 2009; Satterfield 2001; Acott and Urquhart 2014; Song and Chuenpagdee 2015). Hence, intangible and incommensurable contributions are also important to consider as part of the assigned values.

Secondly, the thinking that went into the development of the value-contribution matrix recognizes that values can be relative. This implies that, when eliciting values, no a priori judgements are made about the relative merits of those values. That is, there are no right or wrong values, only different ones. Each value therefore deserves attention from a research perspective. This ‘relativistic’ perspective contrasts with an ‘axiomatic’ approach, which claims certain values are better, more important, and intellectually defensible than others on philosophical or ethical grounds, and is thus suited for eliciting or monitoring public opinions in a policy setting (Satterfield and Kalof 2005).

Lastly, values can be defined as enduring beliefs about personal or group preference regarding a specific mode of conduct or end-state of existence (Rokeach 1973). In other words, they are ultimately about what is desirable. Yet, in light of impartiality associated with assigned values, what people value, or the degree to which they desire certain values, may differ depending on people’s roles and circumstances. Given this potential non-uniformity in how they assign values to something, contribution of that something would also likely be felt differently to different people. While constructive contributions to wellbeing are realized to some individuals or groups because something aligns with or promotes their well-regarded values, it is also possible that adverse effects (i.e., negative contributions) are created to others because some values of theirs are violated or perceived to be under threat.

### ***6.2.2 Insights from the Social Wellbeing Approach***

In assessing in which areas and to what extent people assign positive or negative values to a small-scale fishery, the value-contribution matrix utilizes the three wellbeing dimensions of the social wellbeing approach (McGregor 2007; Coulthard

et al. 2011). The social wellbeing approach is a human-centred analytical framework. It focuses on several essential aspects of human aspirations such as freedom, quality of life and relationships, and offers a holistic schema for examining them. Subsequently, it stipulates that a person's wellbeing comprises objective, subjective and relational dimensions. The objective dimension typically refers to the objectively observable features deemed necessary to achieve human wellbeing, which often include, but are not limited to, materially-oriented needs such as food, shelter and income. The subjective dimension embodies the meanings, feelings, and emotions that people are subject to in pursuit of hedonic and eudaimonic wellness, i.e., embracing both pleasure and happiness as well as the sense of achievement and personal growth (see Ryan and Deci 2001). Living in fear or despair can be expected to affect one's subjective wellbeing as much as the state of optimism and contentment, for instance. Lastly, the relational dimension encapsulates the view that human wellbeing is influenced by social and cultural relationships formed within particular societal contexts. Community ties or social justice would form a key example. Together, they represent a comprehensive viewpoint in making sense of how people derive a sense of wellbeing. With its recent application to the context of small-scale fisheries (see Coulthard et al. 2011), a utilization of this framework is expected to provide a useful lens to highlight the varied nature of social values associated with small-scale fisheries, and, by extension, the multifaceted contributions they present to the society.

### ***6.2.3 An Operationalization of the Value-Contribution Matrix as a Heuristic Device***

The rows of the value-contribution matrix display the three corresponding types of values – objective, subjective and relational, as shown in Table 6.1. Columns specify three general categories with which fishery stakeholders are typically identified. Listed in the order of increasing social scale, the categories include fishers themselves, the fishing village/wider community in which a fishery is immediately enclosed, and the greater society to which a fishery draws an overarching cultural or political connection (i.e., a nation). While I recognize that these are not discrete entities (e.g., the distinction between an individual and a community is rather fluid and complex from a social-anthropological perspective, see, for example, Jentoft et al. 1998), the three categories are nevertheless helpful dividers for heuristic purposes. Similarly, “the greater society” grouping could include the domains of regional or national government or the general public in the country, depending on the context. Though rather loosely defined, the three categories represent major actor groups by which values are borne and contributions of small-scale fisheries are felt.

The operation of the matrix starts with populating the grids with appropriate values, which are used to prompt thinking about the various potential contributions of a small-scale fishery. The values to be included in the current illustration of the

**Table 6.1** One possible setup of the value-contribution matrix displaying relevant values drawn from a value inventory compiled in Song et al. (2013). These values are used for examining small-scale fishery's contributions to fishers, a community and the greater society, according to three types of values (objective, subjective and relational)

	Fishers	Fishing village/ community	The greater society (the general public/ government)
Objective	Economic wealth, livelihood	Community-wide economic wealth, livelihood	Macro-level wealth (export or industry value), (scientific) knowledge
Subjective	Identity, moderation, achievement, freedom, spiritual/religious value, hedonism, self-actualization	Tradition, cultural sustainability, heritage attachment to place	Pleasure, hedonism, novelty
Relational	Conformity, obedience, affection, benevolence	Social cohesion, sense of belonging, (local ecological) knowledge	Social recognition, public image, influence, social power, security, peacefulness, social order

matrix was drawn from an inventory of values compiled in Song et al. (2013). This particular inventory contains 24 distinct values, which are further divided into four broader orientations. The four orientations are (1) *better world* – what is desired for the world/broader society (which include values such as ecosystem conservation, peacefulness and knowledge); (2) *'good' life* – what is desired for an individual's satisfactory, eudaimonic life (composed of values such as wealth, spiritual wellbeing, hedonism and achievement); (3) *personal virtues* – desired virtuous inner quality of a person (whose values include benevolence, honesty and self-esteem) and; (4) *outward aspirations* – desired relationship with human/object outside of self (with values such as attachment to place, social cohesion, influence and tradition). Because this inventory was generated based on an extensive review of value literature spanning multiple disciplines, it reasonably characterizes the broad value discourse, offering an inclusive scope but in a concise fashion. It must be noted that since this is likely not the only relevant list to draw values from, Table 6.1 signifies one possible setup of the matrix. By the same token, the placing of values in the matrix is also not intended to be a clear-cut activity. Rather, this study (Table 6.1) was carried out with an added pragmatic emphasis on showing how the matrix can be put together. Hence, informed judgement of researchers is requested in assigning values in the grids in any future application of the matrix.

Objective values emphasize a substantive dimension, which connects to the resources that people have and the extent to which their material needs are deemed important. They typically include an economic or livelihood worth derived from a fishery, conventionally gathered from numerical data such as landing and value statistics or a livelihood survey. 'Knowledge' value reified in the form of scientific knowledge about a fishery can also be considered part of the objective values as it carries essential information for the broader society. However, local ecological knowledge as socially or co-constructed could be of value to a fishing community in terms of promoting relational ties.

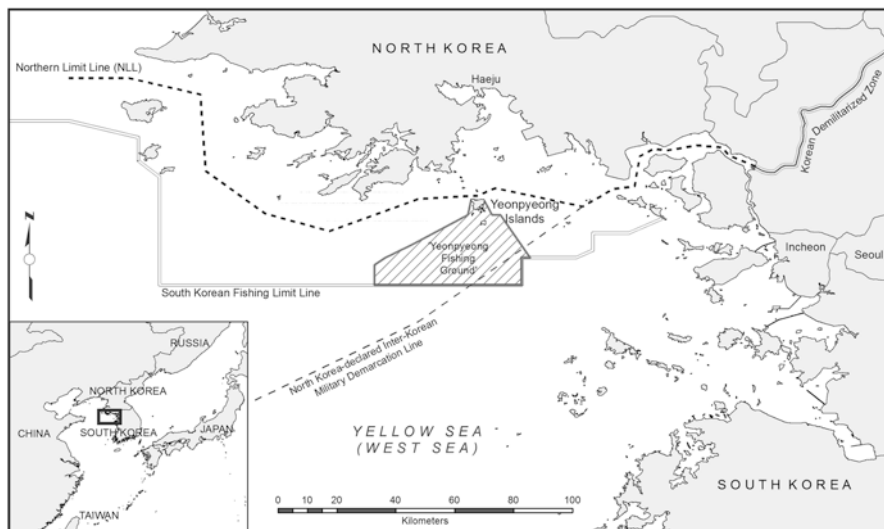
Subjective values are concerned with actors' own perceptions and how they feel about the fishery. At the level of fishers, they are expressed through cognitive qualities such as 'identity', 'self-actualization', 'achievement', 'freedom', and 'spiritual/religious beliefs'. To the community, fishery could provide values that support 'heritage', 'tradition', 'cultural sustainability', as well as 'attachment to place' in their collective mindset. 'Novelty' or 'pleasure' values derived from consumption of fish could form a type of subjective contribution for the general public and the wider society.

Relational values pay attention to the contributions made through social relationships and interactions with others. Among fishers, 'conformity' value that inspires obedience to fishing norms or the sense of 'benevolence' and 'affection' towards other fishers could be what is contributed relationally. A small-scale fishery could also be of value to the community through 'social cohesion' and 'sense of belonging' it motivates, although it is possible that fishery could negatively affect the community by invoking individual competition and dispelling social capital. In relation to the greater society, the civilian presence of a fishery may be used to advance the security objective in a maritime frontier region adding to the value of 'peace' and 'social order'. Conversely, fishing has also been known to trigger intergovernmental as well as sectoral conflicts (see Bavinck 2001; Song 2015a). Lastly, 'social power' and 'social recognition' could serve as relevant values, which raise a possibility of fishery marginalization in view of a prevailing political economy. Based on this initial exposition of the value-contribution matrix, how it can perform as a heuristic device for thinking about small-scale fisheries' values is described in detail through a case study.

## 6.3 Case Study

### 6.3.1 Background

Swimming crab (*Portunus trituberculatus*), mainly distributed along the coasts of East Asia, is one of the most widely fished crab species in the world. It also occurs near a South Korean island called Yeonpyeong in the Yellow Sea (Fig. 6.1). Here, a small-scale fishery has developed which involves under-10 ton engine-powered boats of 10–15 m in length that employ gillnets, traps, or stow nets to catch swimming crab in the spring and fall seasons. There are about 20 active fishing units operating from two inhabited Yeonpyeong Islands, at the time of writing. Each fishing unit is composed of a skipper and 5 or 6 crew members and makes daily trips to the nearby designated fishing area. In recent years, the number of fishing boats has been reduced, as low or uncertain profitability has forced fishers to exit the fishery. The catch volume of crab from the Yeonpyeong area peaked in 2009 with 2959 metric tons. Since then, production has steadily fallen, with 1891 tons landed in 2012 (MOF 2014). Despite these numbers that may suggest a downturn in the fishery, Yeonpyeong Island is still considered one of the most important swimming crab production areas in the country. Overall, the swimming crab fishery forms one of



**Fig. 6.1** Map of the region displaying Yeonpyeong Islands, the designated fishing ground, and the disputed maritime border between North and South Korea called the Northern limit line

the largest domestic fisheries in South Korea in terms of landed volume (e.g., 31,302 metric tons in 2009), although its production is typically marked with a high degree of yearly fluctuation (Kang 2006; KMI 2010).

Similar to other important coastal fisheries in South Korea, the Yeonpyeong crab fishery is mainly regulated by a permit system, in which fishing licenses are issued and controlled by the city/county government. This is supplemented by technical regulations such as guidance on gear usage per vessel and minimum size limits, as well as temporal restrictions to promote stock conservation such as a closed season during July and August. Output control was introduced in 2002 in the form of a total allowable catch and non-transferable quota system (Ryu et al. 2006). In addition, the Yeonpyeong Island crab fishery is subject to a unique management system arising from its strategic proximity to North Korea and a disputed maritime boundary. In order to facilitate military operations as well as to ensure the safety of fishers, the central government, in close connection with the Navy and the maritime police, has created and enforced a fishing zone around the island (Fig. 6.1), in which only Yeonpyeong-based boats are permitted. While it gives them an exclusive access to this fishing ground of 776 km<sup>2</sup>, it also confines them to this “box”, effectively banning any unauthorized movement outside of the boundaries. There are several military bases on the island, and military drills and emergency situations have been a common sight in the nearby sea. These circumstances add a special consideration to the governance of this fishery.

Long before the maritime boundary arbitrarily partitioned a natural fishing ground following the end of the Korean War in 1953, Yeonpyeong Island had already boasted a rich fishing history that had particularly blossomed in the early twentieth century with the catch of yellow croaker (*Larimichthys polyactis*), which attracted a

large, vibrant scene of fishing fleets, merchants, hospitality businesses to the island. Depletion of yellow croaker followed an increase in swimming crab catch in the area making it a prominent fishing ground once again beginning in the late 1990s. At present, the island has a fairly stable population of about 2000, although a large proportion of this is due to an influx of military personnel and their dependants. Various levels of government have been making considerable efforts to sustain a civilian fishing community on the island through subsidies and infrastructure improvement. Highlighting the societal values of this small-scale fishery could help reveal the underlying constraints it faces while providing alternate ways of creating a more governable future. I carry out this potentially useful exercise to further shed insights on this distinctive social and economic arrangement.

### **6.3.2 *Methods***

Data for this study was acquired from multiple sources including a review of published and unpublished documents available on the topic, government statistics, interviews, direct observation and informal chats. Interviews and most secondary sources were in the Korean language, the author's native language. Fifteen open-ended interviews were conducted in 2014 with Yeongpyeong island residents and government fishery officers as well as crab fishers. Interviewees were selected based on purposive sampling strategies (see Robinson 2014). The interviews explored topics such as economic significance and community benefits of the fishery and fishers' job satisfaction, among others. The ensuing analysis derives from the author's inference gathered from these data sources.

### **6.3.3 *Results and Discussion: Application of the Matrix***

The multiple values of the Yeongpyeong crab fishery are compiled using the matrix as summarized in Table 6.2. Through them, the wide-ranging contributions of the fishery can be scrutinized and discussed.

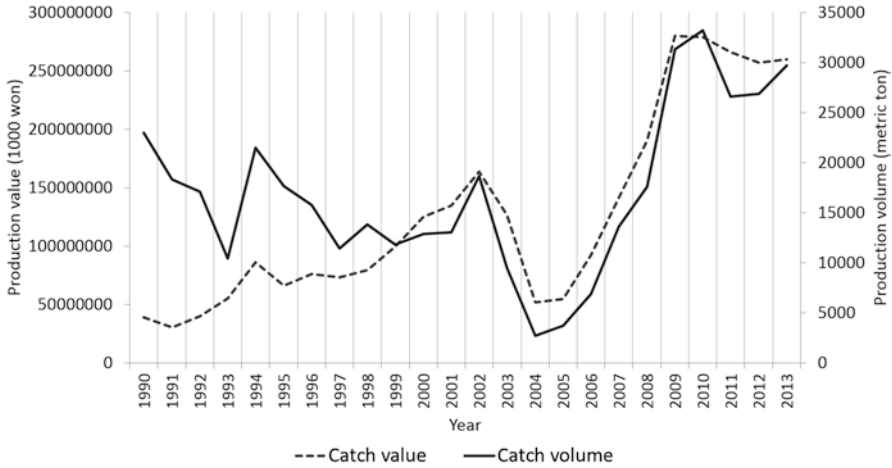
#### **6.3.3.1 *Objective Values***

The swimming crab fishery in South Korea is considered a lucrative economic industry. Despite the apparent wide fluctuation of catch volume as shown in Fig. 6.2, the landed (monetary) value has generally been on the rise in the last two decades, reaching over 250 billion won (roughly USD 250 million). The Yeongpyeong fishery has contributed a significant portion to these national figures raising over 21 million dollars in 2009, although the value almost halved in 2012 to about 11 million dollars (MOF 2014). Such aggregate values are perhaps better contextualized when



**Table 6.2** Summary of the Yeonpyeong swimming crab fishery's contributions (Deemed positive '+' or negative '-' to the corresponding group) organized according to the value-contribution matrix

	Fishers	Community	Wider society, central-regional gov., general public
Objective	Significant source of income for both owners, skippers and crew members (possible annual net income around \$70,000) (+); high 'market' prices of boat and permit (~USD 200,000–250,000) (+); represents a crucial livelihood support for fishers (+)	Little economic value staying in the island and reaching non-fisher residents (-); investors and crew members are typically based in the mainland (-)	High overall catch value nationally (over USD 250 million annually) (+); Yeonpyeong is also an important crab producer, though its significance waning recently (about USD 11 million in 2012) (+)
Subjective	Fishery perceived as a private, individual business (+,-); a multitude of feelings for fishing work such as (dis-) satisfaction, pride and hope observed in fishers (+,-).	Crab seen as a nuisance in the village especially with rotting smell and messiness (-); a potential to raise community perception and involvement (e.g., waste crab processing plant) (+); history of yellow croaker fishery forming part of community identity (+)	Consumption moderately or highly enjoyed by the Korean people (+); usually taken as a delicacy and treat (+)
Relational	Building camaraderie and sharing of information exists among fishers but either inoperative or limited to intimate circles (+,-); sympathy for fellow fishers going bankrupt together with anxiety for the future conditions of the fishery (-)	Creates weak momentum in bringing the community together (-); separation from the fishing village cooperative further limits connectedness with the village life (-)	Perceived as a sector declining and somewhat irrelevant in the wider cultural discourse and in the policy circle (-); but government assistance recognizes its role in supporting coastal villages and infrastructure (+); important part of a military/political strategy of ensuring effective control of the sea (+); but also carries potential to disrupt regional stability (-)



**Fig. 6.2** Swimming crab catch volume and value at the national level from 1990 to 2013 (Source: MOF 2014)

translated to the level of fishers. In an interview, a boat skipper candidly revealed that he earns a yearly net income of about 70 million won from his full-time work in crab fishing (~USD 70,000). Given that the national annual average salary of an employee does not exceed 30 million won, this is clearly a superior amount. The high economic potential involved in the Yeonpyeong crab fishery was also reflected in the wage rate for the crew. The custom is that the owners of the boat pay an advanced lump sum bonus ranging between 8 million to 20 million won (~USD 8000–20,000) to each crew member to secure his labour commitment for a crab season. In addition, crew members receive a monthly stipend that would cover living expenses and a share of the total catch value at the end of the season. It was conveyed that in a good harvest season, this may be equivalent to the monthly wage of 8 million to 10 million won (~USD 8000–10,000). Similarly, a government fishery officer who works on a vessel buy-back program specified that a market value of a crab fishing unit – which may include a 7–9 ton boat, a gillnet permit and nets, is estimated to be 200–250 million won (~USD 200,000–250,000). Hence, a considerable amount of capital is at stake for the owners and the crew of the fishing unit. Further highlighting the material worth of the fishery, crab occupies a crucial part of fishers' livelihood strategies, as suggested by 39 of 41 Yeonpyeong crab fishers surveyed in a recent study who indicated that the crab fishery is 'helpful' or 'very helpful' to their economic lives (Park 2013).

With a large amount of money involved and fishers' high dependence on the crab fishery for their livelihoods, the effect of a poor fishing season (or a few of them in a row) may potentially be too much to overcome, forcing some fishers to exit the fishery. The prevailing view is that the crab fishery is nearing a collapse with perhaps just enough resources left to sustain the current generation of fishers. One fisher explained: "because they are small-scale businesspeople, if crab shows low

abundance in one season, they would face massive pressure about cash flow and hence go into debt. Then they would start to think that this is not a worthwhile business activity.”

Nevertheless, while the individuals engaged in the crab fishery are in a position to reap the economic potential, it appears that the island community that encloses these fishers see little of its material values. The Yeonpyeong fishing village cooperative leader stated in an interview:

These days, many crew members are from the mainland. [And after each fishing season], they go back to the mainland... The crab fishery has little to do with the village economy... Fishing crew bring in a lot of food items and they cook for themselves [instead of using local restaurants]. Well, they could go to a local establishment to have a drink or two on a non-fishing day, but it's difficult to see crab fishers having a large bearing on the Yeonpyeong Island economy.

He added that, after each crab season, the settlement of accounts for each fishing enterprise normally takes place on the mainland. This is because the investor (or money lender) to the fishing unit is located in Incheon, a large port city adjacent to Yeonpyeong. As a result, the money earned and received by the crab fishery remains on the mainland and does not contribute significantly to Yeonpyeong Island. Although the creation of auxiliary local post-harvest employment in the form of net-cleaning hands, fish traders and restaurants should be duly noted, the crab fishery's direct economic contribution to the community appears unreliable and limited to a small number of people.

### 6.3.3.2 Subjective Values

The concentration of the objective values (especially the monetary kind) in the hands of fishers is consistent with the spirit of private enterprise emphasized in the subjective values about the crab fishery. Crab fishing is generally structured and seen as an individual business activity, rather than something embedded in the wider community. For instance, fishers negotiate the terms of fishing directly with the government instead of going through the fishing village cooperative, of which they may also be a member. One key measure of subjective value for crab fishers would be self-actualization in their work (e.g., job satisfaction as one of its more specific forms), that is, how they internally find merit in their occupation in a manner that adds to their cognitive wellbeing. From interviews, varying degrees of approval and hope for the fishing work were observed. One skipper/owner of a crab boat in the late 40s held a pessimistic view:

I want to do other work, but when you get older, there is less you can do... I want to live elsewhere. But [to be able to live elsewhere] I must have a job there, so it is definitely not easy to leave. Plus I don't have enough money to start a business... So, I am scratching hard to make 2 billion won (~USD 2 million), which is my dream. If I am successful in fishing, I make that... But making 2 billion won through selling fish at the regional cooperative auction? I don't think so. That's simply not possible. I will have to give my best effort through direct and private sale [using my quick freeze refrigerator]. I will try, and if it doesn't happen, it doesn't. But if I manage to save that much money, I will [take my family and] even move to a different country.

On the other hand, a positive and even innovative mindset about working in the fishery was voiced by another owner of a fishing unit in his mid-40s: "I have no intention of leaving the fishery. I want to revitalize this sector and I am more and more fascinated by it." Having introduced himself as trying to create a "crab revolution" after coming back to the island after a hiatus in the mainland, his vision for the crab fishery involves establishing a waste crab processing plant in Yeonpyeong Island. He has teamed up with researchers and funders in the mainland to actively lobby the government. In an interview, he spoke enthusiastically about his ambition, which would bring greater benefits to the island community:

For the development of this community and the region, we need a waste crab processing facility. As you may know, from transport of crab etc., there is a large amount of crab that ends up being wasted. We can use it for community development... By having a facility set up here, we can create jobs for residents through manufacturing and shipping out of value-added products beyond the simple catching and selling of the crab... When we consider 2000 island residents and 20 crab fishers, this group of 20 has the [natural] capital to support the livelihood of 2000 people. They can mobilize the economy!

Furthermore, through this initiative, he sees an added value in improving community perception of the fishery. He explained:

The community members here do not really appreciate the crab fishery. This is because, as you will know if you come during a crab season, the whole village reeks of waste crab, those that could not be salvaged in time from nets and thus need to be thrown away. It is estimated that the garbage disposal costs about 600 million won annually [for the local government] and the discarded crab weighs about 600–1000 tons. So, it's not hard to imagine the rotting odor and messiness around. So, those who have no involvement with the crab fishery, whether old or young, detest it, because waste crab doesn't get properly treated. Island residents see themselves not connected to the crab fishery. They say I don't make a living from that.

Therefore, a direct hiring of many residents through a processing plant could elicit a higher community appraisal of the fishery while at the same time resolving the waste crab issue.

Enhancing community perception can build upon the frequently conjured up heritage values tied to the rich history of yellow croaker fishing in the island. There are already a yellow croaker interpretive trail in the middle of the village and a yellow croaker museum. Also, the mental images that capture the bustling of the heyday of yellow croaker are still strongly conveyed in people's narratives and pictures that hang on the wall, such as the one shown in Fig. 6.3. Hence, in contrast to the community's seemingly lukewarm attitudes about the current swimming crab fishery, the old fishing tradition has collectively shaped the psyche of the place and still forms a vital part of community identity and pride.

Another important facet of the crab value chain is its consumption by the general public. By involving 'pleasure' and 'novelty' values, this angle invites one notable aspect of the crab fishery's subjective contributions to the greater society. Swimming crab is a sought-after foodstuff in South Korea. Especially, a dish made with crab marinated in soy sauce (Fig. 6.4) has earned the nickname of "*bapdoduk*", literally meaning "a rice thief", because of its tendency to stimulate one's appetite and make



**Fig. 6.3** Street art that features a photo of the busy Yeonpyeong shore in the 1960s during a peak yellow croaker fishing season



**Fig. 6.4** Raw swimming crab marinated in soy sauce (Source: Wikipedia Commons 2008)

the accompanying bowl of steamed rice disappear in a hurry. According to a recent survey of 722 people sampled across the country, about 70% of the respondents indicated a moderate or high preference for cuisine featuring swimming crab (Incheon 2011). In addition to the widespread popularity, crab is considered a treat, a delicacy, which arouses considerable delight when people have the opportunity to consume it. Though anecdotal, these examples help underscore a substantial novelty value as well as swimming crab's relatively high enjoyment status in the Korean society.

### 6.3.3.3 Relational Values

Small-scale fishers in Korea have long been organizing themselves to nurture obedience to social norms, to build lobbying power, as well as to provide support for each other. This organizational tendency stems in part from an extensive tradition of the *gye* system in Korea, which involves a voluntary informal credit club based on trust and group norms among members. More formally, fishing village cooperatives (literally, 'fishing village *gye*' in Korean) set up at each coastal hamlet in the early 1900s have been the main vehicle raising the prevalence of a collective mode of fishing operation (Cheong 2004). Two self-initiated gatherings are notable in the case of Yeonpyeong Island. While a 'fisher association' is open to all boat-based fishers including crab fishers, a 'skipper association' is a more exclusive one composed only of gillnet-based crab fishers. Presently, the former grouping is reported to be nonoperational. One fisher described:

The fisher association still exists but is inactive. It has the characteristics of a social club especially when there were many boats. But as you know, the number of boats has shrunk to one third of what it was before. Back then, there were many members, so we could collect membership fees and do various activities, but now we don't have that.

Assessing the degree of importance ascribed to such collectivities appears to vary. One crab fisher revealed that this type of organization is actually not all that helpful and skippers normally do not exchange much information. On the contrary, another fisher submitted a more favorable view of fisher cooperation when speaking about the skipper association:

About 17 of us, crab gillnet boats, gather and discuss fishing work. Other gear is not included because they use different locations for their operations... It is quite useful to be part of the group. We exchange information, so we can find out the sea conditions quickly and pick up information like where the crab is abundant... But even within the same association, those who are on intimate terms share information only among themselves and doesn't give it out to other boats. So, those boats which catch a lot always catch a lot, while those that don't catch much always remain at the bottom. There's a big difference. And being included in the intimate circle doesn't happen in a single day.

Facing the trend of fishery exit due to growing economic unviability, the remaining fishers expressed sympathy toward those who quit. From the interviews, several fishers admitted that it is a pity that the boat numbers are dwindling. Hence, at the fisher level, evidence of relational values exists to the extent that there was once a functioning fisher organization and fishers lament the tough circumstances that have

led to the shrinking of the Yeonpyeong crab industry. However, given that the fishery has now become a highly individualized activity with its objective contributions being intensively pursued, it is not likely that the remaining crab fishers would prioritize relational values such as ‘conformity’ or ‘affection’ to institute a structure that relies on strong collective strategies and somehow militates against group dissolution. Similarly, the crab fishery as a whole currently produces little impetus to bring together the wider island community. The separation of the crab fishery from the fishing village cooperative in an operational sense and in terms of a governance structure is another element that gives rise to its limited connectedness with the village life.

Situating the Yeonpyeong crab fishery in the context of the greater Korean society, two relational foci are brought to attention in this chapter. First, approached with the values concerning ‘social recognition’ as well as ‘social power’, fisheries in Korea are generally perceived as a sector that is declining and somewhat irrelevant by the prevailing cultural discourse (Song and Chuenpagdee 2014). Even among the primary industries, the fishery sector appears to occupy the lowest rung of the social ladder due in part to the perception of harshness and lack of sophistication in the nature of fishing work. ‘*Batnom*’ is a colloquial term that refers to seamen including fishers with the literal meaning of “boat wretch”. Fisheries also have been repeatedly dealt the short end of the stick in macro policy implementation. For instance, free trade agreements and coastal reclamation projects have occurred in the name of promoting national interests but at the expense of the fishing industry which may face the import of cheap seafood and environmental alteration. Yet, at the same time, a persistent and conspicuous government mandate on supporting small-scale fisheries is being maintained – rhetorically and materially keeping up the importance of fisheries for their role in propping up coastal villages and infrastructure. While generally unheeded by the wider Korean society, the long-held practice of government assistance can be considered a modest representation of a concerted effort to justify small-scale fisheries’ societal worth. The Yeonpyeong crab fishery is no exception. Various subsidies such as discounted fuel, living allowances and low interest rate loans are in place with a state goal of keeping the fishery and fishing villages afloat.

Finally, the Yeonpyeong crab fishery is imbued with special significance in terms of advancing the politico-military objectives of the South Korean state. Yeonpyeong Island is located in the conflict-prone swath of the sea near the disputed maritime boundary called the Northern Limit Line (Fig. 6.1). Therefore, the island together with the fishing ground constitutes a strategic space for the defense of the disputed boundary and the coastal waters against North Korean infractions. In this respect, civilian settlement and activities can represent an important military strategy of ensuring an effective control of the area in question (Newman 1989). For instance, protection of a permanent civilian village on Yeonpyeong Island supplies a legitimate justification for the maintenance of military bases. Also, fishing activities of crab boats that roam these contested waters could enhance South Korean surveillance capacity, as they may perform the role of an unofficial “scout” (Song 2015a). However, in reality, the value of the crab fishery in fostering peace and social order

is not as clear-cut. Crab boats have in the past played a part in triggering violent naval clashes and otherwise raising political tension in the region (Van Dyke et al. 2003). Such instances would suggest the fishery's negative contributions to regional stability, potentially threatening the status quo of the precariously maintained inter-Korean ceasefire.

#### 6.3.3.4 Governance Implications

Based on the above exercise, it can be inferred that there is a growing and relatively high emphasis on the objective contributions of the swimming crab fishery. While the fishery is still considered an economically lucrative venture, attracting newcomers and giving renewed hope to returning fishers, personal failure and bankruptcy has also become a serious concern for the individuals participating in the industry. The anxiety about having a successful season is pervasive among fishers. Fishing is now a bigger and riskier battle against the investment and the race for fish mentality. Government assistance focusing on fuel subsidy, vessel buyback and infrastructure improvement may have softened the impact of sectoral decline but has not reversed the trend. A further decline in the number of fishing units combined with depleting crab stocks may eventually bring a repeat of the fate that the yellow croaker fishery once faced.

I argue that utmost priority given to the objective contributions of the fishery has not only produced the effect of highlighting the economic values, but also raising the economic stakes for individual fishers. And this situation has likely been exacerbated by the relative neglect of subjective and relational values by all stakeholder groups. The lesson here is that perhaps there should be a more balanced consideration and promotion of all three types of contributions that the small-scale fishery makes to the society. Although objective contributions are invariably important to achieving fisher wellbeing, so are the subjective and relational ones. They give different and more nuanced meanings to the physical and material assets. The three types of contributions keep each other in check, so to speak, such that the whole system does not overheat and disintegrate. Put differently, careful attention to diverse values would be a better strategy to deal with the complex reality of our society.

Fostering stronger relational contributions among fishers through well-defined collective investing, fishing and marketing strategies may be one option of lessening risks, competition, and shocks, while still retaining the form of a private enterprise. For instance, some type of gentlemen's agreement may eliminate the excessive need to invest in an outboard engine worth USD 100,000–200,000 in order to outcompete others to the best fishing spot on the first day of the fishing season. This kind of informal agreements (though often via a heated discussion) has been created from time to time to stabilize their fishing strategies (pers. observation 2014). Further alleviating the financial stake and at the same time raising relational comfort, a scaling down of the fishery could present another direction for governance intervention. Using a smaller boat (of 3–5 tons) and involving a tight family unit such as husband-



wife or brothers, similar to the way the swimming crab fishery is practiced in South Chungcheong province in South Korea, might be the path the Yeonpyeong swimming crab fishery can emulate.

The government should therefore consider fishery assistance focusing not just on the objective contributions (e.g., fishers' income increase), but also the subjective and relational aspects. This would include a continued promotion of a fisher group initiative called the 'Jayul program' (see Uchida et al. 2010; Song 2015b for more details). Also, the feasibility of a waste crab processing facility, as suggested by one informant, can be critically assessed to help create more intimate material and relational connections with island residents and improve community perception of the fishery.

At the level of the greater society, it must be strongly reminded that small-scale fisheries make multiple contributions for the general public: producing seafood, supporting coastal villages and seascape, and generating local and regional economic activities, as we saw from the case of the Yeonpyeong crab fishery. The special geopolitical circumstances that surround Yeonpyeong Island create an additional political worth in the South Korean context. Despite these potential and actual qualities, small-scale fisheries often remain in the periphery of macro policies and out of fashion in the cultural discourse. A conscious effort is needed to make these contributions more visible to all stakeholders so that small-scale fisheries receive the policy support and public attention they deserve.

## 6.4 Conclusion

Responding to a need to devise a practical but rigorous way of capturing the societal contributions of small-scale fisheries, this study proposed a 'value'-based guideline called the value-contribution matrix. Several advantages of applying this matrix can be summarized below. First, examining contributions of a small-scale fishery in objective, subjective and relational senses has allowed a holistic analytical scope. Likewise, by incorporating the three general groupings of fishery stakeholders, contributions are shown to be varied, as they are perceived differently by different people depending on their specific positions and circumstances (e.g., positive or negative). The value-contribution matrix thus aims to capture the comprehensiveness and variability of the values (and the stakeholders) involved in small-scale fisheries in a systematic manner.

Secondly, the use of the matrix permits juxtaposition of those aspects of small-scale fisheries that are quantifiable and thus more legible to policy makers or governors, and those that pay greater respect to the small-scale fisheries' intangible, qualitative, and context-specific qualities. Thus, it presents us with an opportunity to view and reflect upon the insights arising from these two seemingly incommensurable perspectives. Furthermore, the result may reveal contrasting scenarios which could have been more cumbersome to obtain otherwise. In the case of the Yeonpyeong fishery, amid the relatively lucrative economic opportunity that the

fishery presents, there was also a real sense of gloominess and downturn in terms of fleet size and job satisfaction as well as its ecological status and the community acceptance of the fishery. This approach can thus be used to help tease out the intricate constraints and contradictions that may underlie a fishery system.

Thirdly, the matrix can assist in the generation of specific research questions that focus on particular contributions of a small-scale fishery. For instance, going back to the Yeonpyeong case, one could begin to examine the longevity of community values arising out of the yellow croaker fishery vis-à-vis the community perspectives associated with the more current, but less appreciated, swimming crab fishery. Likewise, findings in each grid potentially represents a separate inquiry to be further explored in the future.

Finally, small-scale fisheries' societal contributions are a dynamic entity. Catch value may be in decline, employment may fluctuate in number, or seafood consumption preferences may shift over time. Contributions are therefore not fixed once and for all. Their consequences to people's wellbeing may also wax and wane. Thus, they require a longitudinal update, needing to be regularly reminded, revised, and reinforced. The value-contribution matrix could prove to be a useful guideline that assists in this task.

This chapter began with a premise that to alleviate the diverse and complex fishery challenges, all different sectors require adequate research and policy attention. This applies equally to small-scale fisheries, which have been unduly dismissed, despite how common and significant they are. One reason for the lack of focus on small-scale fisheries is that their dispersed and de-centered mode of operation is less conducive to systematic capturing. This chapter introduces an easy-to-implement guideline to assess the potential contributions of a small-scale fishery using a matrix that draws a conceptual linkage between contribution and value. A case study of a swimming crab fishery in South Korea presented an initial empirical application of this approach. Overall, the value-contribution matrix functions as a heuristic device for identifying and organising different types of (positive and negative) contributions in a way that is of practical relevance to stakeholders. A continued experimentation and refinement is encouraged to add to the advance of small-scale fisheries research.

**Acknowledgements** This research was facilitated by the kind fellowship support of the York Centre for Asian Research and the Asian Business & Management Program through the YCAR/ABMP Postdoctoral Visitor in Asian Governance program. I would like to thank Ratana Chuenpagdee for her useful feedback on an earlier version of this manuscript and the editors of this book for valuable editorial suggestions. I also thank all the interviewees and key informants.

## References

- Acott TG, Urquhart J (2014) Sense of place and socio-cultural values in fishing communities along the English Channel. In: Urquhart J, Acott TG, Symes D, Zhao M (eds) *Social issues in sustainable fisheries management*. Springer, Dordrecht, pp 257–277

- Allan JD, Abell R, Hogan Z, Revenga C, Taylor BW, Welcomme RL, Winemiller K (2005) Overfishing of inland waters. *Bioscience* 55:1041–1051
- Badjeck M-C, Allison EH, Halls AS, Dulvy NK (2010) Impacts of climate variability and change on fishery-based livelihoods. *Mar Policy* 34(3):375–383
- Bavinck M (2001) Marine resource management: conflict and regulation in the fisheries of the Coromandel Coast. Sage Publications, New Delhi
- Béné C (2005) Small-scale fisheries: assessing their contribution to rural livelihoods in developing countries. FAO Fisheries Circular N. 1008. FAO, Rome
- Brown TC (1984) The concept of value in resource allocation. *Land Econ* 60:231–246
- Buijs A (2009) Lay people's images of nature: comprehensive frameworks of values, beliefs, and value orientations. *Soc Nat Resour* 22:417–432
- Chan KMA, Goldstein J, Satterfield T, Hannahs N, Kikiloi K, Naidoo R, Vadeboncoeur N, Woodside U (2011) Cultural services and non-use values. In: Kareiva P, Tallis H, Ricketts TH, Daily GC, Polasky S (eds) *Natural capital theory and practice of mapping ecosystem services*. Oxford University Press, Oxford, pp 206–228
- Cheong S-M (2004) Managing fishing at the local level: the role of fishing village cooperatives in Korea. *Coast Manag* 32:191–202
- Chuenpagdee R (2011) A matter of scale: prospects in small-scale fisheries. In: Chuenpagdee R (ed) *World small-scale fisheries: contemporary visions*. Eburon, Delft, pp 21–36
- Chuenpagdee R, Liguori L, Palomares M, Pauly D (eds) (2006) Bottom-up, global estimates of small-scale marine fisheries catches. Research reports. Volume 14, number 8. Fisheries Centre, University of British Columbia, Vancouver
- Coulthard S, Johnson D, McGregor JA (2011) Poverty, sustainability and human wellbeing: a social wellbeing approach to the global fisheries crisis. *Glob Environ Chang* 21:453–463
- FAO (2005) Increasing the contribution of small-scale fisheries to poverty alleviation and food security. FAO technical guidelines for responsible fisheries 10. FAO, Rome
- FAO (2010) The state of world fisheries and aquaculture 2008. FAO, Rome
- Freeman AM III (1993) The measurement of environmental and resource values: theory and methods. Resources for the Future, Washington, DC
- Graeber D (2001) Toward an anthropological theory of value: the false coin of our own dreams. Palgrave MacMillan, Basingstoke
- Hutchings JA, Reynolds JD (2004) Marine fish population collapses: consequences for recovery and extinction risk. *Bioscience* 54(4):297–309
- Incheon (2011) Establishment of Incheon Metropolitan City swimming crab industry development plan. Incheon City Government, Incheon. [in Korean]
- Islam MS, Tanaka M (2004) Impacts of pollution on coastal and marine ecosystems including coastal and marine fisheries and approach for management: a review and synthesis. *Mar Pollut Bull* 48(7–8):624–649
- Jacquet J, Pauly D (2008) Funding priorities: big barriers to small-scale fisheries. *Mar Policy* 22(4):832–835
- Jentoft S, Chuenpagdee R (eds) (2015) *Interactive governance for small-scale fisheries: global reflections*. Springer, Dordrecht
- Jentoft S, McCay BJ, Wilson DC (1998) Social theory and fisheries co-management. *Mar Policy* 22:423–436
- Kang J-S (2006) Analysis on the development trends of capture fisheries in North-East Asia and the policy and management implications for regional co-operation. *Ocean & Coastal Management* 49:42–67
- Kellert SR (1993) The biological basis for human values of nature. In: Kellert SR, Wilson EO (eds) *Biophilia hypothesis*. Island Press, Washington, DC, pp 42–69
- KMI (Korea Maritime Institute) (2010) Fisheries prospects and issues 2010. KMI, Seoul. 245pp. [in Korean]
- Lunn KE, Dearden P (2006) Monitoring small-scale marine fisheries: an example from Thailand's Ko Chang archipelago. *Fish Res* 77:60–71

- McGoodwin JR (1990) *Crisis in the world's fisheries: people, problems, and policies*. Stanford University Press, Stanford
- McGregor JA (2007) *Researching wellbeing: from concepts to methodology*. In: Gough I, McGregor JA (eds) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge
- MOF (Ministry of Oceans and Fisheries) (2014) Fisheries information service. <https://www.mof.go.kr/statPortal/>
- Newman D (1989) Civilian and military presence as strategies of territorial control: the Arab-Israel conflict. *Polit Geogr Q* 8(3):215–227
- Park J-K (2013) A study on the plan for reviving blue crab industry on Yeonpyeong Island. Unpublished Masters dissertation. Inha University, Incheon
- Pauly D (2006) Towards consilience in small-scale fisheries research. *Maritime Stud* 4:7–22
- Pearce DW, Turner RK (1990) *Economics of natural resources and the environment*. Harvester Wheatsheaf, New York
- Robinson OC (2014) Sampling in interview-based qualitative research: a theoretical and practical guide. *Qual Res Psychol* 11:25–41
- Rokeach M (1973) *The nature of human values*. The Free Press, New York
- Rolston H III (1994) *Conserving natural value*. Columbia University Press, New York
- Ryan RM, Deci EL (2001) On happiness and human potentials: a review of research on hedonic and eudaimonic well-being. *Annu Rev Psychol* 52:141–166
- Ryu J-G, Nam J, Gates JM (2006) Limitations of the Korean conventional fisheries management regime and expanding Korean TAC system toward output control systems. *Mar Policy* 30(5):510–522
- Satterfield T (2001) In search of value literacy: suggestions for the elicitation of environmental values. *Environ Values* 10:331–359
- Satterfield T, Kalof L (2005) Environmental values: an introduction – relativistic and axiomatic traditions in the study of environmental values. In: Kalof L, Satterfield T (eds) *The earthscan reader in environmental values*. Earthscan, London, pp xxi–xxxiii
- Song AM (2015a) Pawns, pirates or peacemakers: fishing boats in the inter-Korean maritime boundary dispute and ambivalent governmentality. *Polit Geogr* 48:60–71
- Song AM (2015b) Towards a governable co-management in South Korean small-scale fisheries: interactions of institutions and stakeholders' mindset. In: Jentoft S, Chuenpagdee R (eds) *Interactive governance for small-scale fisheries: global reflections*. Springer, Dordrecht, pp 687–704
- Song AM, Chuenpagdee R (2014) Exploring stakeholders' images of coastal fisheries: a case study from South Korea. *Ocean Coast Manag* 100:10–19
- Song AM, Chuenpagdee R (2015) Eliciting values and principles of fishery stakeholders in South Korea: a methodological exploration. *Soc Nat Resour* 28:1075–1091
- Song AM, Khan A (2011) Views from below: student reflections on fisheries research. In: Chuenpagdee R (ed) *World small-scale fisheries: contemporary visions*. Eburon, Delft, pp 333–351
- Song AM, Chuenpagdee R, Jentoft S (2013) Values, images, and principles: what they represent and how they may improve fisheries governance. *Mar Policy* 40:167–175
- St. Martin K (2006) The impact of “community” on fisheries management in the US Northeast. *Geoforum* 37(2):169–184
- Stern PC, Dietz T, Guagnano GA (1998) A brief inventory of values. *Educ Psychol Meas* 58:984–1001
- Uchida H, Uchida E, Lee J-S, Ryu J-G, Kim D-Y (2010) Does self management in fisheries enhance profitability? Examination of Korea's coastal fisheries. *Mar Resour Econ* 25:37–59
- Van Dyke JM, Valencia MJ, Garmendia JM (2003) The North/South Korea boundary dispute in the Yellow (West) Sea. *Mar Policy* 7:143–158

Wikipedia Commons (2008) File:Korean seafood-ganjang gejang-01.jpg. [http://commons.wikimedia.org/wiki/File:Korean\\_seafood-Ganjang\\_gejang-01.jpg](http://commons.wikimedia.org/wiki/File:Korean_seafood-Ganjang_gejang-01.jpg). Accessed 5 June 2014

Zeller D, Booth S, Pauly D (2006) Fisheries contributions to the gross domestic product: underestimating small-scale fisheries in the Pacific. *Mar Resour Econ* 21:355–374

**Andrew M. Song** is a research fellow at the Australian Research Council Centre of Excellence for Coral Reef Studies, James Cook University, Australia, who holds broad interest in the governance and geography of small-scale fisheries. His current research focuses on trans-boundary and multi-scalar issues that embed fisheries as they relate to community-based fisheries management, IUU fishing, and human rights based approach, etc. Also affiliated with WorldFish, he has worked in various inland and marine fishery settings including the Philippines, the African and Laurentian Great Lakes, Atlantic Canada, South Korea, and, most recently, Pacific islands.

# Chapter 7

## Undefining Small-Scale Fisheries in India: Challenging Simplifications and Highlighting Diversity and Value

Adam Jadhav

**Abstract** Indian marine fishers and fishing practices vary considerably, from semi-industrial boats crewed by two-dozen to the lone fisher paddling a tiny canoe. It is difficult to capture this in simple statistical measurements, leaving much of the small-scale sector as less-than-legible. Policymakers often default to defining fishers – and particularly the small-scale – in the aggregate as locked in poverty and part of the underdeveloped “backward classes.” This view results in development focused on capitalizing and “modernizing.” This paper seeks to challenge this reductionist perspective. Following a discussion of the difficulty in defining small-scale fisheries (SSF), the paper reviews of the Indian fisheries development context. Analysis of census data from India’s Central Marine Fisheries Research Institute examines the questionable but widespread generalization that Indian SSF are synonymous with poverty. The analysis finds considerable variability in the characteristics of fishing communities and the predictors of poverty within and across geographies. Inspired by the social wellbeing framework, the paper finally attempts to describe India’s small-scale fisheries in terms beyond simplistic techno-economic measures. This more nuanced statistical picture of India’s fisheries questions the narrative that SSF are inherently destitute and leads to an argument that politics, policy and scholarship should shun overly simplified economic abstractions and reconsider the diversity and values of SSF.

**Keywords** Fisheries • India • Scale • Development • Poverty • Wellbeing • Statistics

---

A. Jadhav (✉)  
University of California, Berkeley, CA, USA  
Dakshin Foundation, Bangalore, India  
e-mail: [ajadhav@berkeley.edu](mailto:ajadhav@berkeley.edu)

## 7.1 Introduction

Indian marine fisheries vary wildly in people and practice. Those fishers who contribute to the country's marine fish catch – 3.78 million metric tons in 2013 (CMFRI 2014)<sup>1</sup> – range from sun-hardened tuna and shark long-line fishers who spend a month at sea to the smallest of small-scale fishers polling a plank boat across an estuary. Whereas some fisheries approach industrial scales and are linked to international markets, others remain deeply embedded in village sociopolitics. Despite this diversity, fisheries development policy in India has followed global trends in prescribing capital intensification to boost productivity and reduce poverty.

The results of this push to capitalization – framed often as a drive to modernization – have been mixed. Indian fisheries remain far from homogenized or fully industrialized; they span multiple social and economic classes and communities of fishers and fishery workers, and many could fall under the umbrella adjective “small-scale.” But social and economic diversity is often illegible or incomprehensible to remote or external policy makers (Scott 1998); in Indian fisheries this lack of legibility prompts a reductionist view that considers the segments that would be most easily identified as small-scale fisheries (SSF) as locked in poverty. Such a description of SSF in India fisheries – accepted so widely that it may be a de facto definition – overlooks the potential for diverse values of SSF, which may vary substantially by place. This tension between a top-down narrative of an economic sector and the empirical observation of fishery diversity provides a backdrop for this paper. Challenging the perspective that equates Indian SSF with poverty and highlighting the potentially valuable diversity of these fisheries are my twin goals.

I begin with a discussion of literature highlighting the difficulty in arriving at a definition of SSF that is not context-dependent. The paper then briefly charts the history of fisheries development and so-called modernization in India, where small-scale fishers are primarily understood to need “uplifting”. I analyze a large government dataset describing fishing villages to challenge that poverty narrative and present a broader description of SSF that includes socio-cultural values alongside economic ones. This analysis is inspired in part by social wellbeing theory, which understands human wellbeing as a combination of objective circumstances and subjective aspirations, which are mediated and constructed within a web of social relationships. Viewed through the social wellbeing framework, SSF can be seen as embedded within a constellation of human needs, desires, valuations and relationships that are often particular to a place. I conclude with a discussion about how politics, policy and scholars might reconsider SSF – including their values and social contributions – beyond purely in economic terms.

---

<sup>1</sup>Excluding the Andaman and Nicobar Islands and Lakshadweep.

## 7.2 The Ambiguity of Small-Scale

Small-scale fishing dominates parts of the Global South, including much of India. Compared to high modern, industrial fisheries of the Global North, SSF often involve less capital, smaller boats, lower-tech gears, fishing nearer to shore, community economic orientation, traditional governance and production more for local consumption than export. They may rely on traditional ecological knowledge, using fishing practices known for centuries even in the face of modern economic pressures (e.g. Johannes 1992). This very broad description reflects the conceptual difficulty or impracticality of defining or categorizing SSF (Johnson 2006; Charles 2011). Adding to the confusion, numerous descriptors – artisanal, traditional, indigenous, community-based or subsistence – may imply SSF. These terms have their own connotations for the audience, the speaker and the population to which they are applied. Charles writes, “the many categorizations of small-scale fisheries (subsistence, artisanal, etc.) and their diversity of forms imply that any broad discussion of these fisheries cannot deal with all the nuances of specific situations – a small-scale fishery in one location will not necessarily look similar to one elsewhere” (Charles 2011, 85–86). Emphasizing the complexity, Berkes et al. situate SSF on a continuum of fisheries ranging from the largest commercial scale to pure subsistence, with 17 overlapping dimensions or considerations (2001, 7).

While some scholars sidestep the matter by discussing SSF in a particular context (e.g. Pomeroy 1995; Béné and Friend 2011), others have suggested a more explicit definition. Platteau, writing on Global South fisheries, offers two options for limiting the universe of what counts as small-scale or artisanal: “beachlanding fishing units” regardless of type or context or “all fishing units whose owners/proprietors are actually and personally involved in fishing operations, whether in manual operations or in direct supervisory or coordination tasks” (1989, 568). Allison and Ellis define small-scale as “those operating from the shore or from small fishing vessels in coastal or inland waters” (2001, 377). They also admit this definition to be “very vague.” Dozens of maritime countries do actually define the small-scale sector by metrics such as boat length, engine size, gear type, crew size, geographic extent or depth (Chuenpagdee et al. 2006, 10). Such *de jure* definitions – often used in management – may be quite specific, though they vary by national context.

The FAO’s recently approved Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (in shorthand, the FAO SSF Guidelines) “recognize the great diversity of small-scale fisheries” and “do not prescribe a standard definition of small-scale fisheries nor how the Guidelines should be applied in a national context” (FAO 2015, 1–2). Considering the intent of FAO SSF Guidelines and relevant portions of the FAO Code of Conduct for Responsible Fisheries (1995), the act of defining SSF may move beyond positivist description and take on normative implications, particularly in the discourses of development and global fisheries crisis. Categorization of fisheries as “small-scale” – potentially valorizing them – may become a social and political act. Johnson notes that while SSF have indeed been valorized in critiques



of the failings of development narratives (including modernization, state socialism and globalism), these fisheries may not always conform to the social or ecological values that they are alleged to embody (2006). Johnson suggests research and policy must look beyond the categorical descriptor of SSF and instead engage and support the values that society prizes (e.g. increased employment, the potential for low ecological footprint, etc.).

The above discussion suggests that defining SSF is impractical if not problematic. Any definition is likely to be heavily dependent on context – geographic, social, economic, etc. The act of defining may also be an inherently political process. Though policy sometimes seeks a category to which it can be applicable, SSF diversity may require eschewing definition. I now turn to the specific context of Indian fisheries where a development narrative has given rise to de facto definition of SFF as underdeveloped and poverty-stricken.

### 7.3 Small-Scale Amidst a Push for “Development”

Global fisheries, particularly in the latter half of the twentieth century, witnessed capital intensification and increases in production and geographic extent. This capital-driven growth model, which began earlier in the Global North, spread through much of the Global South in the post-colonial period (Smith 2000; Bavinck 2011). This development fits neoclassical economic theory – where capital replaces unskilled labor in primary economic sectors – which has been applied in Global North contexts from U.S. agriculture to Norwegian fisheries (Mundlak 2005; Hannesson 2007). In India, the “blue revolution” was spurred in part through state intervention and:

justified with recourse to the rhetoric of development: India’s abundant marine resources would be marshaled to address the protein deficiency of the masses. Moreover, the blue revolution would help to uplift the country’s poor fishing population and bring them into the development trajectory (Bavinck and Johnson 2008, 585).

The development discourse in India has long assumed that fisheries were marginal prior to independence in 1947 from the British. Pillai and Katiha write that before state interventions in the 1950s, “marine fishing activity was carried out at subsistence level with the indigenous craft employing gears such as cast nets, small seines and traps operated close to the shore” (Pillai and Katiha 2004, 103). The majority of Indian fisheries in those decades indeed would have appeared “small-scale,” particularly to the government technocrat. Platteau writes that small-scale fishing accounted for 80% of production even in 1976 (1989, 569). However, relegating these colonial and post-colonial fisheries to the category of subsistence misstates their level of social, political and economic organization. European traders may have targeted other commodities (e.g. Morrison 2006), but India’s fisheries still had commercial linkages. Kurien reports that southwestern India’s prolific oil sardine catch was an integral if understated part of Kerala trade. Dried fish fed coffee

plantation workers, salted fish was shipped across the subcontinent, and by the 1840s traders exported fish oil from Kerala to London to make up for flagging production of whale oil (Kurien 1985, A71). Indian fisheries before state development also demonstrated considerable sociopolitical organization. Subramanian traces the history of South Indian fishers making rights-based claims in legal arenas during the colonial period (2009). Among others, Bavinck also demonstrates that India's fisheries prior to government intervention were thriving if low-tech enterprises, often governed by community political and social organizations (Bavinck 2001a, b).

Though India's marine fish catch had already passed 580,000 metric tons by the mid 1900s (CMFRI 1969, 3), planners saw an undercapitalized fleet of "country craft" incapable of exploiting India's natural resource wealth and in need of "upliftment" (CMFRI 1981, 4). As part of its economic nationalism (bordering on autarky), India established a bureaucracy for scientific management and economic development, including the Central Marine Fisheries Research Institute (CMFRI) and the Central Institute of Fisheries Technology. From the first Five-Year Plan (1951–1955), the government funded the motorization of traditional craft in hopes that they would catch more fish farther offshore (Pillai 2011, 65–66). Planners also sought international aid to introduce more powerful boats. The Indo-Norwegian Project, started in Kerala in 1952, is a noteworthy example. The program's early attempt to motorize traditional craft largely failed. Boats with low-horsepower engines apparently proved no superior and port facilities didn't exist to dock the motorized craft; fishers, at least initially, preferred to paddle or sail their existing craft. When profitable experiments by merchants exporting prawns to the U.S. and Japan set off a "pink gold rush" (Kurien 1985, A76) the Norwegian program refocused on export-oriented fishing businesses – including large trawlers and processing facilities. The shift in focus essentially abandoned small-scale fishers.

"The most notable structural change in the project area consequent to the introduction of the new technology of fish harvesting and processing was the creation of a new class of non-operating entrepreneurs or capitalists who owned the means of production and through this opened up avenues for a large migrant labor force recruited from outside" (Ibid).

Frozen prawn exports from India rose from 496 metric tons in 1957 to more than 54,000 metric tons by 1982 (Ibid, A75). Export-oriented, high-capital fishing had displaced the traditional or small-scale sector as India's model for fisheries development by the 1980s. This drive toward capitalization and geographic expansion has continued to dominate fisheries economic planning in India to date (e.g. Pillai 2011).<sup>2</sup>

---

<sup>2</sup>For example, the National Fisheries Development Board, created in 2006, pushes production and export.

## 7.4 Indian Fisheries Today

Engines generating hundreds of horsepower, synthetic nets and semi-industrial boats have proliferated throughout India, and today the mechanized sector dominates the national catch. Many successful “fishers” are capital owners with little history of fishing. Smaller-scale fishers – if they have the finances – often use out-board motors fixed to traditional or hybrid craft. Labor has flowed into the mechanized sector both from intra- and inter-state traditional fishing sectors as well as from outside the sector (field interviews February, April, September 2014). Also, many fishers today have expanded into secondary activities (such as marketing or net mending).

India’s trajectory generally fits the neoclassical economic model of capital replacing labor that shifts to other pursuits, but the experience has not been as universal as policymakers might wish. Indian fisheries still span a range of social, economic and technological classes (see Figs. 7.1, 7.2, 7.3 and 7.4). A large, diverse fleet of traditional and arguably small-scale craft still relies on human power and small motors. Some fishers say they proudly uphold traditional practices and others periodically leave the mechanized sector and return to small, traditional craft in estuaries where large boats can’t deploy or during monsoon months when large boats are restricted (field interviews July, August 2012; February, April 2014; June 2016). This diversity also creates conflict between competing classes of higher- and lower-tech fishers and fishworkers.

Central and state governments tend to categorize these non-mechanized fishers – despite their large numbers – as underdeveloped, or vestiges of a bygone era, and discussions of small-scale fishing often default to a language of poverty. The 2007–2012 central government five-year plan proclaims: “In economic and occupational



**Fig. 7.1** A traditional fisher and plank canoe near Pondicherry February 2010



Fig. 7.2 A fishing dughy in the Andaman Islands in January 2010



Fig. 7.3 Women with a beach seine net in Goa in April 2004

terms, the backward classes comprise of [sic] peasants, landless laborers, artisanal communities such as handloom weavers, carpenters, metal workers, stone cutters and fishermen” (Government of India 2008, 120). The most recent five-year plan casts fishery development as “a powerful tool for poverty reduction” (Government



**Fig. 7.4** Idle mechanized wooden purse seiners at Mangalore during the monsoon season in July 2012

of India 2013, 38). In 2012, then-Minister of Agriculture Sharard Pawar reiterated this logic, touting fisheries as “generating income and employment and providing nutrition to a large section of the economically backward population” (CMFRI 2012, i). In this narrative, SSF are tangibly if imprecisely defined: Their assumed hallmark is the poverty of their fishers.

The generalization that small-scale fishers are likely to be poor is certainly not limited to India (Béné 2003), and there is plenty of evidence to challenge the notion. Bavinck suggests that though poverty may be persistent in fisheries, the sector’s considerable wealth still attracts people to fishing (2014). Similarly, Johnson finds organized artisanal fishers thriving in Gujarat, even as wealth increasingly concentrates in the mechanized sector (2001).

The government, however, continues to view fisheries through an economic development lens (Government of India 2006), and planners concentrate on supporting aquaculture and developing post-catch infrastructure for marketing and processing fish. Recently, fishery managers have begun to worry about the overcapitalization that conservationists argue stems from a developmentalist focus on production (Fernandes and Gopal 2012). Sustainability has become a catchphrase (Government of India 2006; Pillai 2011) as most marine resources down to 50 m depth have been tapped (Immanuel et al. 2003), and the same is increasingly true for resources down to 200 m. Officials are now keen to shift capital offshore to harvest deep-sea resources beyond 200 m depth (field interviews June, July, August 2012).

Reducing reliance on high capital intensity fishing strategies or encouraging smaller-scale, lower-impact fishing are rarely discussed as alternatives.

Despite this *de facto* tendency to describe SSF in terms of their presumed “backward” nature, India does not have a *de jure* definition of small-scale fishing.<sup>3</sup> Fisheries statistics, however, occasionally identify three technological categories:

- **Non-motorized craft** rely on paddling, polling or sailing for propulsion and fishing. The smallest are no more log planks bound together, though some may be several meters long. This sector caught almost 2% of the 2013 mainland landed catch (CMFRI 2014).<sup>4</sup>
- **Motorized craft** include boats with outboard engines for propulsion only (though small inboard-motor craft may also fall in this factor). This sector caught nearly 19% of the catch in 2013 (Ibid).
- **Mechanized boats** have engines permanently fixed to the hull for propulsion and operation of fishing gears, such as trawlers, purse seiners and long liners. They may be described as industrial but are rarely more than 20 m long.<sup>5</sup> Some smaller mechanized boats are more akin to motorized craft in terms of their production, ownership and operational geography. This sector caught approximately 3 million metric tons of fish in 2013, or almost 80% of the catch (Ibid).

The first two categories are more easily argued as small-scale by technology, but the lines are far from clear. Some non-motorized craft operate beyond sight of land, and motorized boats are known to travel as far as 36 nautical miles from shore (Meenakumari 2014). Some motorized craft may also be quite large and capable of competing with mechanized craft; Kerala ring seiners in the recent past relied on multiple outboard motors and crews of more than two dozen (Balan and Sathianandan 2007). At the same time, many mechanized craft – though less likely to be called small-scale – are still owned and operated at the family level, using relatively small engines and traditional methods; older dol net (anchored bag) fishers in Maharashtra (Raje and Deshmukh 1989) and the small mechanized-but-long-distance shark fishers in southwest Tamil Nadu have small-scale characteristics in ownership and community identity (field interviews March, July, November 2014). Even when owned externally, the mechanized fleet is typically crewed by fishers with generational histories in the sector. Many boats, whether mechanized or motorized, also operate in partially delinked markets influenced by ties to creditors or family business relationships. Leadership of formal and informal associations – historical or professional – also govern many fishers, suggesting traditional social capital still plays a role in Indian fisheries (field interviews July, August 2012).

This considerable diversity of Indian fishing activity and the blurred lines between statistical categories calls into question the assumption of policy and policy

<sup>3</sup>States occasionally privilege “traditional” gears. For example, states generally exempt small boats from the monsoon fishing ban (Vivekanandan et al. 2010).

<sup>4</sup>Excluding the Andaman and Nicobar Islands and Lakshadweep.

<sup>5</sup>Larger boats face more onerous central government regulation; most boat owners stay under the 20 m threshold (field interview July and August 2012; September 2014).

makers that SSF are universally locked in poverty. I now attempt to challenge and move beyond that narrative using the government's own statistics.

## 7.5 Method and Data

In this analysis, I rely on data from India's Central Marine Fisheries Research Institute (CMFRI). First, I briefly will discuss the dataset, its limitations and the variables chosen for analysis. In subsequent sections, I compare descriptive statistics both for India and the five states with the largest number of fishing villages – Odisha, Tamil Nadu, Andhra Pradesh, Maharashtra and Gujarat. Differences among national and state metrics highlight the diversity in Indian fisheries that defies universal description. I then present multivariate regression models that examine variation in poverty at national and state levels; these models challenge the generalization that a defining trait of SSF in India is poverty.

I then use cluster analysis to group fishing villages by their similarity based on several variables that may identify SSF in India better than presumed poverty. By examining these mathematically similar groups of villages, I attempt to further highlight SSF diversity and search for ways to better understand and ultimately value SSF.

The dataset, the *Marine Fisheries Census 2010* (CMFRI 2012),<sup>6</sup> represents the most comprehensive, public, quantitative account of Indian marine fishing villages. The census is also the only source of fisher population data collected through standardized surveying procedures across all 11 mainland coastal states and union territories.<sup>7</sup> However, there remain known discrepancies between CMFRI data and statistics generated by other government offices. For example, Karnataka officials report that CMFRI's boat counts are higher than the official numbers of craft licensed by the state (field interviews July 2012). CMFRI catch data also show more production in the state, including a decade-long boom in oil sardine catch that appears less in Karnataka government figures. Bavinck notes similar differences in other states; still, trend lines between state and CMFRI figures often match even if exact figures vary (Bavinck 2014).

The unit of analysis is the fishing village,<sup>8</sup> a distinct place notified by state fishery departments where fishing households are known to reside. It is typically a sub-unit

---

<sup>6</sup>Enumeration took place in April/May 2010. Data entry and validation continued until November 2011. Statistics in this paper, unless otherwise noted, are based upon this census.

<sup>7</sup>A different agency surveys the Andaman and Nicobar Islands and Lakshadweep; they do not factor in this analysis.

<sup>8</sup>CMFRI declined to release household-level data. The institute provided hardcopy tables containing village-level aggregate statistics only. During 3 weeks in 2013, I scanned more than 2600 pages of data and compiled digital tables using text-recognition software. I have checked 5% of data rows against hard copies for error, removing a handful of observations because of inconsistencies in the printed versions. I have also compared my digitization to typed data entry by the Fisheries Management Resource Center. I am confident the digital data used here reflect the original hard-copy publication.

of the “census village,” an administrative territory demarcated by the central government Office of the Registrar General and Census Commissioner. In urban settings, a fishing village might simply be a neighborhood populated by fishers. In rural areas, a fishing village might be a beachside hamlet. Within these villages, the census only counts fisher households, defined as a household where at least one member works in fishing or a fishing-affiliated activity (such as net mending or fish marketing). In India’s 3288 officially declared fishing villages, the fisher population totals 3,999,214.

Four important caveats relate to the scope of the data. First, this census excludes households whose members work in the fishery but do not reside in a state-notified fishing village. This omission includes seasonal migrants who sleep on boats or in temporary accommodation, as well as people who may own fishing capital – and therefore are vested in the fishery – but reside elsewhere. Second, the census only counts households with a member working in the fishery. This means that a household that overwhelmingly depends on fishing incomes – for example, one that operates a grain shop exclusively serving a fishing village – is excluded if no member works in the fishery. Third, CMFRI’s aggregation of data to the village level masks important intra-village variation. Fourth, dependent and independent variables are not lagged in time; correlations must be interpreted with caution. For example, when cooperative membership is associated with higher poverty, it is unclear whether cooperatives contribute to poverty or are simply a response to existing high poverty.

## 7.6 Fishery Variables

In selecting variables for use in the study, I use social wellbeing theory as applied to fisheries by Coulthard et al. (2011). In this framework, wellbeing depends on a combination of having needs met, having freedoms/autonomy and achieving a desired quality of life. This can be construed objectively through standard poverty measures, such as the income needed to support a minimum calorie intake. Yet *social* wellbeing is also subjective; what constitutes a need or freedom varies according to individual hopes, aspirations and goals. This wellbeing (objective and subjective) is also relational; it is constrained, mediated and influenced by relationships within the household, the community, the state, the market and even the ecosystem. Coulthard, Johnson and McGregor also note that social wellbeing is embedded within geographic *place* (and the institutions/structures of places). Within this framework, fishing is “an activity which is culturally and socially embedded in a way of life” (2011, 459); fisheries can be understood in terms of the people, aspirations, relationships and institutions of particular places, in addition to conventional techno-economic measurements such as boat size or commercial scale. A key challenge for policy – if it is to support social wellbeing – is to recognize this potential for considerable heterogeneity in wellbeing, the sets of relationships in play and the aspirations to which these may give rise.



As the CMFRI census was not designed to support a full-fledged social wellbeing analysis, I do not attempt to map CMFRI variables directly onto the social wellbeing framework. Instead, I instead rely on social wellbeing theory in general to justify including social and cultural variables, alongside economic ones, to broaden the description of SSF in India. From the numerous data variables available in the CMFRI census I have chosen a mix that characterizes Indian fisheries in general – and SSF in particular. Table 7.1 provides details on the 26 variables under consideration.

## 7.7 Fisheries Seen from on High

I first report the variable means (Table 7.2) for the nation and the five states with the most fishing villages – Odisha, Tamil Nadu, Andhra Pradesh, Maharashtra and Gujarat. It is important to remember that these means represent the fishing households of the “average” fishing village.<sup>9</sup> The table also shows, using a simple notation (#), when a mean is highly variable (i.e. when standard deviation is larger than the mean). The goal of this exercise is to look for general trends and broad differences between geographies.

National figures (the far right column) essentially describe the fishers in the “average” fishing village. In this hypothetical village, fisher poverty is indeed quite widespread as 62% of households are BPL, more than double some India-wide estimates.<sup>10</sup> Ownership of fishing capital remains sparse: There are roughly seven families for every single-family-owned non-motorized craft and only 23 families for every single-family owned motorized craft. Single-family ownership of mechanized craft is actually slightly more common, with one for every 21 families.<sup>11</sup> Forty-three percent of the population above the age of five lacks formal education. Fisher household employment is concentrated in fishery, and nearly 72 men out of 100 engage in actual fishing at least part time. Also, 86% of fisher households consider themselves to have a traditional fishing lineage, despite trends of external labor and capital entering the sector.

This perspective, from on high, may confirm for policymakers the narrative of fisheries as “backwards” or in need of development. However, the underlying diversity of fishing villages confuses this picture of national averages. More than half of variables – including the various occupational variables, women’s employment, cooperative membership, levels of marginalized caste/tribe and even the number of fisher families living together in a village – should be considered highly variable;

---

<sup>9</sup>This is different from an overall percentage. For example, while 75.5% of fisher households are Hindu (Hindu households divided by total households), in the average village 84.9% are Hindu (sum of all village percentages divided by the number of villages).

<sup>10</sup>Around 26–27 under this BPL calculation (Ram et al. 2009).

<sup>11</sup>Wealthier households may own multiple boats, but CMFRI’s aggregation of data to the village level obscures concentration of craft ownership *within* villages.

**Table 7.1** Variables under analysis

Variable name	Definition	Notes
<i>Basic demographics</i>		
Poverty	Percentage of families officially Below the Poverty Line (BPL)	A government calculation, household BPL status (at census time) was scored on 13 criteria including property, possessions, literacy, food security and more <sup>a</sup>
Traditional fisher identity	Percentage of families identifying as a traditional fisher household	This counts households who claim their members are fishers “by birth and fishing is their ancestral occupation”
<i>Education</i>		
Female secondary education	Ratio of females whose highest level of education is some or all of secondary/higher secondary school to females above the age of five <sup>b</sup>	Secondary/higher secondary school includes Standard VI through Standard XII
Male secondary education	Ratio of males whose highest level of education is some or all of secondary/higher secondary school to males above the age of five	In the data, primary education levels are virtually identical for both genders. Differentiation starts at the secondary level
Female education above secondary	Ratio of females whose highest level of education includes any schooling above Standard XII to females above the age of 14	This includes schooling for a vocational certificate, bachelor’s degree, etc.
Male education above secondary	Ratio of males whose highest level of education includes any schooling above Standard XII to males above the age of 14	
Lack of formal education	Percent of the population above the age of 5 without any formal education	A flawed proxy measure for illiteracy <sup>c</sup>
<i>Fishing economy</i>		
Non-motorized craft ownership	Ratio of non-motorized craft that are fully owned by a single family to total families	Non-motorized craft may sit idle for much/all of the year. The census counts boats but a quick beach walk reveals boats that, while owned, have not been in the water in a long time.
Motorized craft ownership	Ratio of motorized craft that are fully owned by a single family to total families	Motorized craft may exist at the village level, though some also exist in small harbors
Mechanized craft ownership	Ratio of mechanized craft that are fully owned by a single family to total families	Mechanized boats exist above the village level (at a jetty or landing center)

(continued)

**Table 7.1** (continued)

Variable name	Definition	Notes
Male on-the-water fishing	Ratio of men who engage in actual on the water fishing to adult men <sup>d</sup>	The census defines actual fishing as a male-only activity. This omits the extremely rare female fisher and is a small source of error. It certainly reinforces gender bias, but women are counted in collecting fish seed or fry. Women who work in other fishing-like activities such as seaweed harvesting or clumpicking fall into the “other” employment category
Female fishery employment	Ratio of fishing affiliated jobs held by women to adult women <sup>e</sup>	A conservative measure of women’s employment in secondary fishery activities. Excludes the rare women who may actually fish
Fish marketing employment	Percent of jobs in fish marketing and sales	This ranges from groups of women selling fish from baskets on their heads to wealthy exporters of frozen prawns
Net making/mending employment	Percent of jobs in making or repairing nets	This work often requires expert knowledge; entire gangs may be employed to repair massive nets
Curing/processing employment	Percent of jobs in involved in processing and curing	This ranges from industrialized, factory work or very low-tech drying of fish
Labor employment	Percent of jobs in mostly dock labor	This often involves physical, low-paid work as a runner, dock unloader or “helper”
Other fishing employment	Percent of jobs in other fishing-associated work	This “other” category ranges from the fishery auctioneer to the seaweed gatherer
Employment outside the fishery	Percent of jobs that are unrelated to fishing	The census counts members of fishing households (though not by gender) who work outside the fishery. Many of these jobs may depend on fishing households for customers
Total employment	Ratio of employment to total population	This counts the number of jobs relative to the total population (multiple jobs may belong to one person)
<i>Community/social structure</i>		
Fishery cooperative membership	Percent of the population that is a member of a fisheries cooperative	Fisheries cooperatives theoretically assist smaller fishers through subsidies, organization, marketing, etc. They may be captured by elites, but they also may represent collective action and an institution involved in governance

(continued)

**Table 7.1** (continued)

Variable name	Definition	Notes
Hinduism	Percent of families that are Hindu	Fishing has historically been marginalized in Hindu sociopolitical hierarchies <sup>f</sup>
Scheduled caste/tribe status	Percent of families that belong to a scheduled caste or tribe	“Scheduled” caste/tribe refers to a government categorization of the most socially marginalized people, often referred to SC/ST. This often overlaps dalit and adivasi designations. In Indian parlance, they are the most “backward” of classes
Fisher family concentration	The number of families per village	This may range from a handful of fishing families on a beach to large communities of hundreds of households
Average family size	Average number of people per household, defined as a group of people (not necessarily related) who live together and share housekeeping/cooking arrangements	“Joint families” are common in traditional India. A large “household” might include grandparents, their sons, their daughters-in-law, any unmarried children, grandchildren, permanently boarding friends/distant relatives and full-time housekeepers/cooks
Female-to-male ratio	Number of females per 10 males	This variable captures both out-migration and a traditional preference for boy children
Youth dependency	Percent of the population that is below the age of 15	The census counts 15-year-olds as adults. By that age, some children are already in the workforce

<sup>a</sup>Poverty measurement methodology in India is debated politically and periodically revised. BPL underestimates poverty in some places and overestimates it elsewhere, but it remains the official poverty statistic for government programs (Hirway 2003; Ram et al. 2009)

<sup>b</sup>Education variables are technically ratios because the dataset only reports three age groups: children up to age five, children above five to 14, and “adults” 15 and up. Without full age structure, calculating a more accurate percentage (e.g. percent of women age 10 and up whose highest education level is some or all of secondary school) is impossible

<sup>c</sup>I strongly argue there are important, valuable forms of non-formal education, particularly in natural resource economies. However, the dataset limits the discussion to classroom education

<sup>d</sup>Reported as a ratio because in 150 villages, actual fishing employment (jobs) exceeds the number of adult men. This is likely because some boys (under age 15, according to census definitions) also actively fish

<sup>e</sup>Reported as a ratio because in 205 villages, the number of jobs held by women exceeds the number of adult women. This is not surprising as women may hold multiple fishery-related jobs

<sup>f</sup>Hinduism is the majority religion, but some non-Hindu communities have strong ties to fishing. For example, many traditional fishers converted from Hinduism to Christianity during colonial times (e.g. Subramanian 2009)

they have standard deviations higher than their means. Of particular note: Craft ownership, and especially ownership of motorized and mechanized craft, is among the most variable measurements in the dataset. Data ranges, though not reported, also demonstrate considerable extremes of fishery dynamics. There are villages where the entire fisher workforce actually fishes; there are villages where no one does. There are villages of entirely marginalized communities and villages with none. There are 641 villages where poverty is less than the national average. While in nearly 100 villages there is a wholly owned motorized craft for every third family – a proposition that planners would likely support – there are an astounding 2013 villages where no family owns such a boat.

This kind of variation at the national level necessitates looking at the differences and variation of fisheries – small-scale or not – by geography. Several states have characteristics that make their fishing geographies stand apart. In Andhra Pradesh, official poverty is very high. In Gujarat education levels are very low, especially considering its relatively low poverty. Lack of schooling varies considerably between states from low in Maharashtra to high in Andhra Pradesh (and nearly as high in Gujarat). Ownership of mechanized boats is so widespread in Maharashtra and Gujarat that in both states, a family-owned mechanized boat is more common than a motorized one. Yet in Andhra Pradesh there is only one mechanized fishing boat for every 104 families. Andhra Pradesh and Maharashtra both have high women's participation in the fishery that comes closest to equality with male employment in actual fishing. Tamil Nadu has both the highest cooperative membership and the lowest female participation in the fishery. In Odisha, the percentage of fishers from a marginalized caste or tribe remains at least three times higher than any other state. These states' outlier status on one metric or another supports an argument that variability in fishing geographies renders top-down description (in particular the national means reported in Table 7.2) inaccurate if not misleading.

There also exists considerable variability *within* each state. Though Gujarat has the lowest poverty, village BPL levels there are highly variable. Education beyond high school is most often variable, as is fishery capital ownership and are most employment categories. Fish cooperative membership and the percentage of families that are scheduled caste/tribe both are generally variable, except in Tamil Nadu and Odisha, respectively. And the number of fishing families in a given fishing village is highly variable across all geographies. This intra-state variability suggests even the state level may be too high for nuanced analysis. While beyond the ambit of this paper, analysis at the district or taluk level seems worthwhile.

**Table 7.2** Village-level variable means by region

	Odisha	Tamil Nadu	Andhra Pradesh	Maharashtra	Gujarat	India
<i>Basic demographics</i>						
Poverty (%)	53.8	76.9	97.4	31.5	29.4#	62.0
Traditional fisher identity (%)	70.0	95.1	98.4	78.0	95.1	86.3
Female education above secondary						
Female secondary education (ratio)	0.170	0.266	0.108	0.319	0.086#	0.211
Male secondary education (ratio)	0.208	0.282	0.141	0.421	0.116#	0.251
Female education above secondary (ratio)	0.031#	0.063#	0.026#	0.040#	0.013#	0.045#
Male education above secondary (ratio)	0.070#	0.072	0.064	0.070#	0.024#	0.070#
Lack of formal education (%)	42.3	39.7	66.4	26.7	63.9	43.0
<i>Fishing economy</i>						
Non-motorized craft ownership (ratio)	0.176#	0.104#	0.191#	0.160#	0.038#	0.141#
Motorized craft ownership (ratio)	0.018#	0.095#	0.035#	0.020#	0.048#	0.043#
Mechanized craft ownership (ratio)	0.026#	0.036#	0.010#	0.122#	0.098#	0.047#
Male on-the-water fishing (ratio)	0.738	0.770	0.777	0.612	0.807	0.717
Female fishery employment (ratio)	0.410#	0.226#	0.614	0.476	0.424	0.394#
Fish marketing employment (%)	10.0#	12.5#	12.8	22.1	18.2	13.6#
Net making/mending employment (%)	5.1#	2.3#	5.8#	4.2#	6.8#	4.5#
Curing/processing employment (%)	2.5#	1.9#	4.9#	3.4#	0.9#	2.6#
Labor employment (%)	9.5#	3.9#	22.4	9.0#	5.9#	10.1#
Other fishing employment (%)	0.2#	1.1#	0.7179#	2.9#	0.7#	1.0#
Employment outside the fishery (%)	3.4#	2.7#	3.5#	2.6#	2.4#	3.5#
Total employment (ratio)	0.428	0.386	0.524	0.454	0.407	0.430
<i>Community/Social structure</i>						
Fishery cooperative membership (%)	3.8#	32.2	7.9#	13.7#	1.1#	13.0#

(continued)

**Table 7.2** (continued)

	Odisha	Tamil Nadu	Andhra Pradesh	Maharashtra	Gujarat	India
Hinduism (%)	97.8	74.2	97.8	88.5	65.7	84.9
Scheduled caste/tribe status (%)	59.8	5.5#	1.2#	19.7#	10.5#	23.3#
Fisher family concentration (families per village)	140.5#	336.3#	294.5#	178.7#	253.2#	263.0#
Average family size (members)	5.9	4.2	3.7	4.8	5.4	4.9
Female-to-male ratio (women per 10 men)	9.0	9.4	9.5	9.5	9.3	9.3
Youth dependency (% of population below 15)	41.7	30.1	37.1	29.2	43.2	35.1
<i>Minimum N</i>	810	573	555	455	246	3275

Note: # signifies highly variable, with standard deviation larger than mean

## 7.8 Explaining Fisher Poverty

This analysis thus far has shown Indian fishing villages are extremely diverse and difficult to describe meaningfully at a wide geographic scale (such as the nation and perhaps even the state). Using a series of linear regression models (Table 7.3), I now directly interrogate the assumption among policymakers and the developmentalist agenda that a defining characteristic of India's SSF is poverty. My hypothesis is that numerous different variables – rather than simply a lack of large-scale fishing boats – help explain variation in measured poverty across India. I report standardized coefficients because my primary interest is in comparing the strength and direction of relationships. These models also contain variables representing districts, an intermediate administrative territory above the village or town but below the state, as a statistical practice to further account for the effects of place.<sup>12</sup>

I deliberately do not report t-statistics, p-values or significance notation. Means, coefficients and other statistics derived from an entire population (i.e. from a census of all notified fishing villages) are not subject to the confidence intervals used for calculating inference precision from sample data, because there is no *calculable* sampling error. I do not naively suggest the census is error-free; imperfect enumeration frames or measurements are almost inevitable. But these sources of error are not measured by post-hoc statistical analysis.<sup>13</sup>

<sup>12</sup>Fishing villages fall within 69 coastal districts. The models include dummy variables for 68 districts (omitting one as a reference) to control for unobserved fixed effects.

<sup>13</sup>Census data t-statistics or standard error can be interpreted. For example, if an unstandardized coefficient represents nominal average relationship strength, standard error can be understood as the variation of response. This more complex analysis is beyond the space available here.

**Table 7.3** Standardized linear regression coefficients

<b>Dependent variable:</b> Percent of families per village that are Below poverty line						
	Odisha	Tamil Nadu	Andhra Pradesh	Maha-rashtra	Gujarat	India
<i>Basic demographics</i>						
Traditional fisher identity	.177	.077	-.009	-.140	.087	.006
<i>Education</i>						
Female secondary education	.071	-.082	.041	.019	-.058	-.039
Female education above secondary	.084	.077	-.086	-.047	-.030	-.005
<i>Fishing economy</i>						
Non-motorized craft ownership	.150	.039	-.009	.100	-.083	.053
Motorized craft ownership	-.040	.001	-.009	-.096	-.025	-.014
Mechanized craft ownership	.056	-.003	-.114	-.084	-.132	-.040
Male on-the-water fishing	.064	-.029	.026	.107	-.123	.030
Female fishery employment	.050	.029	-.089	-.145	.147	-.034
Fish marketing employment	-.105	X	-.024	.069	X	-.008
Net making/mending employment	.012	-.005	-.040	.068	-.194	-.011
Curing/processing employment	.142	-.036	.026	-.063	.005	.017
Labor employment	X	.013	.018	.129	.007	.020
Other fishing employment	-.022	.003	.042	.097	-.156	.018
Employment outside the fishery	-.136	-.039	.079	-.067	X	-.027
<i>Community/Social structure</i>						
Fishery cooperative membership	-.012	.016	.060	-.038	.090	-.028
Hinduism	-.009	.012	-.046	.099	.080	.046
Scheduled caste/tribe status	X	.059	.007	.283	.212	.115
Fisher family concentration	-.106	-.003	.030	-.133	-.047	-.037
Average family size	X	.087	.018	-.001	.046	.056
Female-to-male ratio	-.027	-.023	.065	.053	.055	.006
Youth dependency	-.034	X	.078	.039	X	.031
Geographic fixed effects (dummy variables for $n-1$ districts)						
N	810	573	555	454	246	3280
Adjusted R <sup>2</sup>	.225	.467	.137	.241	.424	.598

Note: X means variable excluded due to colinearity with other variables. (No model contains independent variables with a Pearson's  $r$  greater than  $\pm .500$  between them. For example, the models exclude variables for male education and a lack of education due to strong correlations (positive and negative, respectively) with female education)



As before, my intent is to look for broad patterns (or a lack thereof) across geographies. From this perspective, several general conclusions arise that support my hypothesis that small-scale fishing is not the chief explanation of poverty.

First, there are few universal predictors. Only variables for dock labor employment and caste/tribe marginalization consistently maintain the direction of their relationship to official poverty at both the state and national levels. Controlling for other variables, higher village-level employment in menial dockside labor – for example, a boy who carries loads of fish from an ice hold to an auction block – is associated with higher poverty. Similarly, a higher percentage of households who have been designated as socially ostracized or excluded is also associated with higher BPL levels.

Second, geographic exceptions appear for every other observed relationship between an independent variable and poverty, when controlling for all other variables. Ownership of motorized boats is associated with lower poverty, except in Tamil Nadu. Ownership of mechanized boats is also generally associated with lower official poverty, except in Odisha. The number of fisher families per village is associated with lower poverty, except in Andhra Pradesh. Variables for working as a fish monger as well as for working outside the fishery have inverse relationships with poverty in three out of four models and four out of five models, respectively. And even in geographies where relationship directions remain the same, relationship strength varies. For example, mechanized craft ownership – the gold standard of fisheries development in the popular development narrative – has a standardized coefficient of  $-.132$  in Gujarat in relationship to poverty; however, that coefficient is practically nil ( $-.003$ ) in Tamil Nadu. And coefficients on marginalized caste/tribe percentage range from  $.283$  in Maharashtra to just  $.007$  in Andhra Pradesh.

Third, several variables that feature in development theory have mixed relationships to poverty, when controlling for the range of variables available in this analysis. Of particular note, ownership of mechanized craft is not an overwhelming predictor of reduced poverty in five of six geographies; only in Andhra Pradesh, where mechanized boats are rather rare, is the variable coefficient the strongest in the model. In the other geographies, multiple variables have equal or stronger associations – positive or negative – with poverty. Female education and female employment – also generally thought of as development goods – are sometimes associated with higher poverty and sometimes with lower. The various diversified employment variables likewise exhibit no clear relation across geographies. The relationship between poverty and membership in fisheries cooperatives – another prong of Indian development policy – also varies by geography.

Finally, even this evaluation of fisheries at the state-level needs further examination. Consider the range of adjusted  $R^2$  values across geographies in Table 7.3. While in Tamil Nadu, the model explains almost 47% of variation in poverty, the Andhra Pradesh model explains less than 14%. Even with more than 20 variables to describe the fishery, these expanded models remain far from complete.

These results support my hypothesis that the predictors of poverty in fisheries are multiple, varied and differ greatly across geographies; simply put, the set of variables that accompany poverty in one place are hardly ever the same in another. This

finding suggests that complex systems such as a fishery – involving people, institutions and nature all embedded within a place – cannot be accurately described from on high. Such a conclusion warns against universalist conclusions; the policymakers’ reductionist definition of SSF as rooted in poverty is inaccurate, misleading and a poor basis for policy.

## 7.9 An Alternative Description of Small-Scale

I now attempt an alternative description of SSF in India that may illuminate other fishery characteristics – including those that might be construed as valuable or desirable socially or politically. I use a two-step cluster analysis (Aldenderfer and Blashfield 1984; Norusis 2011) to classify fishing villages based upon their similarities across a set of variables that might identify SSF in the Indian context. The cluster solution creates four categories of villages with similar levels of ownership of mechanized fishing craft, membership in fishery cooperatives, fishing families per village and traditional fisher identity.<sup>14</sup> Table 7.4 presents cluster means of determinant variables.

Mechanized craft ownership does theoretically represent a more commercial and quasi-industrial orientation to the fishery. Cooperative membership meanwhile may signify a more collectivized or communalized organization of the fishery. Fishing families per village reflects social and geographic concentration, while traditional fisher identity is most often a historical claim to fishing. Clusters 1, 2 and 3 are all low-mechanization clusters, but each still differs from the other – Cluster 1 has low geographic concentration of fisher families, traditional identity and organization.

**Table 7.4** Cluster means of determinant dimensions

	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Commercialization —Mechanized craft ownership (ratio)	0.026#	0.036#	0.036#	0.558
Organization – Fishery cooperative membership (%)	4.9#	2.4#	29.9	15.2#
Geographic Concentration – Fisher family concentration (families per village)	132.6#	218.7#	311.7	1116.2#
Traditionality – Traditional fisher identity (%)	16.2#	96.5	98.02	90.1
N	435	1587	1182	82

Note: # signifies highly variable, with standard deviation larger than mean

<sup>14</sup>Chosen from more than 100 two-step cluster iterations of the data set randomly ordered. Other variables tested for cluster definitions include ownership of motorized and non-motorized boats; marginalized caste/tribe status; poverty; female employment; and male on-the-water fishing. Solved based on Schwarz’s Bayesian Criterion using log-likelihood distance and a noise threshold of 10%. Cluster quality has “good” cohesion/separation of 0.5. The four-cluster solution includes the outlier cluster.

**Table 7.5** Cluster means of remaining variables

	Cluster 1	Cluster 2	Cluster 3	Cluster 4
<i>Basic demographics</i>				
Poverty (%)	51.5	61.0	68.8	37.5#
<i>Education</i>				
Female secondary education (ratio)	0.218	0.168	0.264	0.256
Male secondary education (ratio)	0.265	0.211	0.297	0.301
Female education above secondary (ratio)	0.032#	0.034#	0.064#	0.046#
Male education above secondary (ratio)	0.065#	0.064#	0.081#	0.055#
Lack of formal education (%)	35.2	49.3	37.6	42.3
<i>Fishing economy</i>				
Non-motorized craft ownership (ratio)	0.161#	0.131#	0.142#	0.205#
Motorized craft ownership (ratio)	0.015#	0.030#	0.069#	0.073#
Male on-the-water fishing (ratio)	0.635	0.729	0.730	0.719
Female fishery employment (ratio)	0.354#	0.438	0.347	0.451
Fish marketing employment (%)	7.8#	14.5#	14.3	17.3#
Net making/mending employment (%)	4.9#	5.3#	3.4#	4.6#
Curing/processing employment (%)	2.0#	2.8#	2.5#	2.4#
Labor employment (%)	14.9#	10.8#	7.9#	5.8#
Other fishing employment (%)	1.8#	0.7#	1.0#	1.6#
Employment outside the fishery (%)	3.3#	3.9#	3.1#	3.4#
Total employment (ratio)	0.407	0.438	0.427	0.449
<i>Community/Social structure</i>				
Hinduism (%)	93.2	89.1	77.4	68.2
Scheduled caste/tribe status (%)	26.6#	33.9#	8.6#	13.4#
Average family size (members)	5.8	5.0	4.4	5.1
Female-to-male ratio (women per 10 men)	8.9	9.4	9.5	9.0
Youth dependency (% of population below 15)	38.4	38.0	30.0	34.3
N	435	1587	1182	82

Note: # signifies highly variable, with standard deviation larger than mean

Cluster 2 is more concentrated and highly traditional yet the least organized (lowest cooperative membership). Cluster 3 is more geographically concentrated than Clusters 1 and 2 and has the highest traditional identity and cooperative membership of all clusters. Based primarily around urban/semi-urban ports, Cluster 4 has extreme mechanization and geographic concentration but remains quite traditional (though less than Clusters 2 and 3); Cluster 4 also has intermediate organization compared to other clusters.

Clusters 1, 2 and 3 most closely represent different faces of SSF in India, while Cluster 4 best fits the official imagination of fisheries development (namely because of its considerably higher mechanization). Yet Cluster 4's narrative encompasses just 2.5% of villages; while Cluster 2 tells the story of more than 48% and Cluster 3 captures another 36%.

Table 7.5 presents cluster means for the remaining variables in the analysis, highlighting other characteristics of these different categories of fishing villages, small-scale or not.

Cluster 4, containing the fishing villages with the highest family ownership of mechanization, clearly has the lowest levels of official poverty, though that is highly variable. For policymakers captured by the developmentalist logic, this statistic may again confirm beliefs that SSF (represented by Clusters 1, 2 and 3) are synonymous with poverty and that poverty is best tackled by high capital. Yet other clusters fair “better” than Cluster 4 on other metrics that may also be valuable or desirable to society. Compared to the mechanized Cluster 4, female secondary and above secondary education remains higher in Cluster 3; above secondary education for men is also higher in Clusters 1, 2 and 3. Meanwhile, lack of formal education is lower in Clusters 1 and 3. Cluster 3 also has lower levels of caste/tribe marginalization and lower youth dependency percentage. Clusters 2 and 3 have lower average family sizes and more gender equality in population.

Some notes of caution in are in order. Intra-cluster variability suggests that a more refined analysis – forming a wider array of clusters or creating clusters *within* the political and cultural contexts embedded within different geographies – remains important in future work. In addition, other important variables that might the describe clusters – whether small-scale or not – are likely missing entirely; binary logistic regression models predicting cluster membership based on the remaining variables explain at best less than 40% of variation.<sup>15</sup>

## 7.10 Implications for Politics, Policy and Scholarship

This analysis first presented descriptive statistics for the “average” fishing village in different geographies. I want to return briefly to this notion. What is an average fishing village, apart from a collection of statistics? Anyone who has spent time in Indian fishing communities, small or large, from different regions, should find questionable this proposition that a village can be averaged. Irrespective of scale, fisheries – the fish, the boats, the houses, the people, their aspirations, their needs, the institutions, the relationships, the politics, the cultures – vary considerably across and within geographies. Social wellbeing theory predicts as much; the statistics presented in this paper serve to further support this conclusion.

But the history of fisheries development in India suggests that policymakers who prescribe and proscribe various development/governance forms can become captured by the abstract notion of an average fishing village. This external, top-down perspective has generally assumed that poverty is the defining hallmark of Indian SSF. If the discussion of fisheries is limited to official poverty measures, small-scale is systematically devalued. This paper chiefly challenges that reductionist view and the development politics/policy it supports. The diversity of fisheries – with their

<sup>15</sup>The highest Nagelkerke R<sup>2</sup> value of 38.3% existed for predicting Cluster 4 membership.

particular geographies, social institutions, structures, relationships and ecologies – constitutes a fundamental limit on the utility of broad averages and assumptions.

My argument draws on Scott's critique of high modernism (1998) and assertion that development policy too often is based on what is legible to the state policy-maker; diverse, varying practices become illegible – difficult to see or comprehend. Gibson-Graham's notion of the iceberg economy is also a helpful heuristic; if the economy – in this case, the fishery – is an iceberg, then wage labor and production for markets in capitalist firms float visibly above the water (2006). The larger mass of alternative forms of economic activity and socioeconomic organization – self-employment, gifting, self-provisioning, cooperatives, informal work, sharing, barter, etc. – lies hidden beneath the surface. Here, too, the social wellbeing framework – by focusing on diversity of actors, their aspirations and the ways that wellbeing is embedded with social ecological systems – challenges politics and policy to move beyond abstracts and simplifications.

Setting aside the poverty narrative that devalues SSF opens the door for new political discourse around fisheries development in India. Understanding fisheries as diverse communities of people, practices and places – which may not always be in need of a universal, homogenizing development prescription – creates space for embracing and supporting a multiverse of fishery styles. I know fishers who will disagree, but there may be room for mechanized boats alongside community beach seines. A mix of governance strategies may also be possible: Some fisheries may require top-down, command-and-control governance; neoliberal, market-based regulation may serve in other instances. Meanwhile, those that would likely be identified as SSF may remain under the control of local legal pluralism (Bavinck and Vivekanandan 2011; Bavinck et al. 2013) and vibrant social capital (e.g. Kurien and Vijayan 1995; field interviews August 2012; February, March 2014; October 2015; January 2016) that persists in some fishing communities.

The dominant political narrative of poverty in SSF has of course driven development policy to focus on capital intensification, boat financing, commercial post-harvest infrastructure and fuel subsidies. More recently, fishery development policy has undergone a neoliberal turn: licenses are proposed for fishers (including international capital) to tap zones farther from shore (Meenakumari 2014) and coastal commons are increasingly privatized for aquaculture and mariculture (field interviews September, October 2015). Reconsideration of SSF values could prompt a shift in political will, bureaucracy and financial support to important but ignored policy and governance. Existing regulations reserving near-shore zones for smaller gear classes and pollution standards for on-shore industry are rarely enforced. Coastal rules that theoretically privilege communities in constraining coastal land-use change suffer from disuse or misuse (Menon et al. 2015). India is party to the FAO Code of Conduct for Responsible Fisheries and the new FAO SSF Guidelines but these instruments are practically absent from domestic discussions (field interviews March, July, November 2014). New attention should also be given to the ways in which fisheries can be supported through the communities they are embedded within. The quality of rural schools or addressing the pernicious effects of caste and class may be as important for supporting SSF as any technology or subsidy, yet

these remain outside the jurisdiction (or even thought processes) of many fishery department officials.

Finally, scholars (including government scientists) can help shift the discourse on small-scale fishing. For example, fisheries statistics in India need an upgrade. The CMFRI dataset is not without value, but it falls short in measurement and reporting. This work of this paper is clearly restricted by the availability and scope of data. India needs a more agile fisheries science bureaucracy with a nuanced social and ecological research agenda. Research must also embrace the less-than-legible knowledge that Scott (1998) calls *metis* – knowledge that is local, contextual and experiential. Indigenous communities have used such knowledge to practice what Johannes (1998) calls data-less management. Bridging gaps between this local knowledge – itself an undervalued aspect of SSF – and institutional research may support a more nuanced development dialogue and appropriate policy, as well as more inclusive science; this is a specific part of the agenda of FAO's SSF Guidelines (2015). Knowledge sharing exercises (such as the global Information System on Small-scale Fisheries<sup>16</sup>) can also advance this goal. In this way, the scientific community bears some responsibility for protecting the wide-ranging diversity and values that might be considered SSF in India.

## References

- Aldenderfer MS, Blashfield RK (1984) Cluster analysis. Sage Publications, Thousand Oaks
- Allison E, Ellis F (2001) The livelihoods approach and management of small-scale fisheries. *Mar Policy* 25(5):377–388
- Balan K, Sathianandan TV (2007) An assessment of ring seine fishery in Kerala through surplus production model. *Indian J Fish* 54(2):135–140
- Bavinck M (2001a) Caste panchayats and the regulation of common pool resource usage in India: fisheries along Tamil Nadu's Coromandel Coast. *Econ Polit Wkly* 36(13):1088–1094
- Bavinck M (2001b) Marine resource management: conflict and regulation in the fisheries of the Coromandel Coast. Sage Publications, New Delhi
- Bavinck M (2011) The megaengineering of ocean fisheries: a century of expansion and rapidly closing frontiers. In: Brunn SD (ed) *Engineering earth: the impact of megaengineering projects*. Springer, Dordrecht, pp 257–273
- Bavinck M (2014) Investigating poverty through the lens of riches: immigration and segregation in Indian capture fisheries. *Dev Policy Rev* 32(1):33–52
- Bavinck M, Johnson D (2008) Handling the legacy of the blue revolution in India: social justice and small-scale fisheries in a negative growth scenario. *Am Fish Soc Symp* 49:585–599
- Bavinck M, Vivekanandan V (2011) Conservation, conflict and the governance of fisher wellbeing: analysis of the establishment of the Gulf of Mannar National Park and biosphere reserve. *Environ Manag* 47(4):593–602
- Bavinck M, Johnson D, Amarasinghe O, Rubinoff J, Southwold S, Thomson KT (2013) From indifference to mutual support – a comparative analysis of legal pluralism in the governing of South Asian fisheries. *Eur J Dev Res* 25(4):621–640
- Béné C (2003) When fishery rhymes with poverty: a first step beyond the old paradigm on poverty in small-scale fisheries. *World Dev* 31(6):949–975

<sup>16</sup><https://dory.creatit.mun.ca>

- Béné C, Friend RM (2011) Poverty in small-scale fisheries: old issue, new analysis. *Prog Dev Stud* 11(2):119–144
- Berkes F, Mahon R, McConney P, Pollnac R, Pomeroy R (2001) Managing small-scale fisheries: alternative directions and methods. International Development Research Centre, Ottawa
- Charles A (2011) Small-scale fisheries: on rights, trade and subsidies. *MAST* 10(2):85–94
- Chuenpagdee R, Liguori L, Palomares MLD, Pauly D (2006) Bottom-up, global estimates of small-scale marine fisheries catches. *Fish Cent Res Rep* 14(8):1–105
- CMFRI (1969) Marine fish production in India: 1950–1968. *Bull Cent Mar Fish Res Inst* 13:1–144
- CMFRI (1981) Proceedings of the seminar on the role of small-scale fisheries and coastal aquaculture in integrated rural development, 6–9 December 1978. Central Marine Fisheries Research Institute, Chennai
- CMFRI (2012) Marine fisheries census 2010. Central Marine Fisheries Research Institute, Kochi
- CMFRI (2014) Marine fish landings in India – 2013. Central Marine Fisheries Research Institute, Kochi
- Coulthard S, Johnson D, McGregor JA (2011) Poverty, sustainability and human wellbeing: a social wellbeing approach to the global fisheries crisis. *Glob Environ Chang* 21(2):453–463
- FAO (1995) Code of conduct for responsible fisheries. Policy document. Food and Agriculture Organization of the United Nations. <http://www.fao.org/3/a-v9878e.pdf>. Accessed 15 Aug 2016
- FAO (2015) Voluntary guidelines for securing sustainable small-scale fisheries in the context of food security and poverty eradication. Policy document. Food and Agriculture Organization of the United Nations. <http://www.fao.org/3/a-i4356e.pdf>. Accessed 15 Aug 2016
- Fernandes A, Gopal S (2012) Safeguard or squander: deciding the future of India's fisheries. Greenpeace India, Bangalore
- Gibson-Graham JK (2006) *A postcapitalist politics*. University of Minnesota Press, Minneapolis
- Government of India (2006) Report of the working group on fisheries: eleventh five-year plan. Expert report. Planning Commission, Government of India. [http://planningcommissionnicin/aboutus/committee/wrkgrp11/wg11\\_rpfishpdf](http://planningcommissionnicin/aboutus/committee/wrkgrp11/wg11_rpfishpdf). Accessed 15 Aug 2016
- Government of India (2008) Eleventh Five-Year Plan 2007–2012, vol 1. Oxford University Press, New Delhi
- Government of India (2013) Twelfth five-year plan 2012–2017, vol 2. Sage, New Delhi
- Hannesson R (2007) Growth accounting in a fishery. *J Environ Econ Manag* 53(3):364–376
- Hirway I (2003) Identification of BPL households for poverty alleviation programmes. *Econ Polit Wkly* 38(45):4803–4808
- Immanuel S, Pillai VN, Vivekanandan E, Kurup KN, Srinath M (2003) A preliminary assessment of the coastal fishery resources in India – socioeconomic and bioeconomic perspective. In: Silvestre G, Garces L, Stobutzki I, Ahmed M, Valmonte-Santos RA, Luna C, Lachica Aliño L, Munro P, Christensen V, Pauly D (eds) Assessment, management and future directions for coastal fisheries in Asian countries. WorldFish center conference proceedings 67. WorldFish Center, Penang, pp 439–478
- Johannes RE (1992) *Words of the lagoon: fishing and marine lore in the Palau district of Micronesia*. University of California Press, Berkeley
- Johannes RE (1998) The case for data-less marine resource management: examples from tropical nearshore finfisheries. *Trends Ecol Evol* 13(6):243–246
- Johnson D (2001) Wealth and waste: contrasting legacies of fisheries development in Gujarat since 1950s. *Econ Polit Wkly* 36(13): 1095–1097, 1099–1102
- Johnson D (2006) Category, narrative, and value in the governance of small-scale fisheries. *Mar Policy* 30(6):747–756
- Kurien J (1985) Technical assistance projects and socio-economic change: Norwegian intervention in Kerala's fisheries development. *Econ Polit Wkly* 20(25/26):A70–A88
- Kurien J, Vijayan AJ (1995) Income spreading mechanisms in common property resource: Karanila system in Kerala's fishery. *Econ Polit Wkly* 30(28):1780–1785

- Meenakumari B (2014) Report of the expert committee constituted for comprehensive review of the deep sea fishing policy and guidelines. Expert report. Ministry of Agriculture, Government of India. <https://drive.google.com/file/d/0B5z6G2GECnA6X0R0aVRhTkNaanc>. Accessed 21 Aug 2016
- Menon M, Kapoor M, Venkatraam P, Kohli K, Kumar S (2015) CZMAs and coastal environments: two decades of regulating land use change on India's coastline. Center for Policy Research-Namati, New Delhi
- Morrison KD (2006) Environmental history, the spice trade, and the state in South India. In: Cederlöf G, Sivaramakrishnan K (eds) Ecological nationalisms: nature, livelihoods, and identities in South Asia. University of Washington Press, Seattle, pp 43–65
- Mundlak Y (2005) Economic growth: lessons from two centuries of American agriculture. *J Econ Lit* 43(4):989–1024
- Norusis M (2011) IBM SPSS statistics 19 statistical procedures companion. Addison Wesley, Boston
- Pillai NGK (2011) Marine fisheries and Mariculture in India. Narendra Publishing House, Delhi
- Pillai NGK, Katiha PK (2004) Evolution of fisheries and aquaculture in India. Central Marine Fisheries Research Institute, Kochi
- Platteau J-P (1989) The dynamics of fisheries development in developing countries: a general overview. *Dev Chang* 20(4):565–597
- Pomeroy RS (1995) Community-based and co-management institutions for sustainable coastal fisheries management in Southeast Asia. *Ocean Coast Manag* 27(3):143–162
- Raje SG, Deshmukh V (1989) On the *dol* net operation at Versova, Bombay. *Indian Journal of Fisheries* 36(3):239–248
- Ram F, Mohanty SK, Ram U (2009) Understanding the distribution of BPL cards: all-India and selected states. *Econ Polit Wkly* 44(7):66–71
- Scott JC (1998) Seeing like a state: how certain schemes to improve the human condition have failed. Yale University Press, New Haven
- Smith HD (2000) Millennium essay: the industrialisation of the world ocean. *Ocean Coast Manag* 43(1):11–28
- Subramanian A (2009) Shorelines: space and rights in South India. Stanford University Press, Palo Alto
- Vivekanandan E, Narayanakumar R, Najmudeen T, Jayasankar J, Ramachandran C (2010) Marine fisheries policy brief – 2: seasonal fishing ban. *CMFRI Spec Publ* 103:1–44

**Adam Jadhav** is a doctoral student in the Department of Geography at the University of California at Berkeley and a research affiliate with the Dakshin Foundation and the Panchabhuta Conservation Foundation in India. His past research for both the Indian government and NGOs has focused on small-scale fisheries and agriculture, neoliberal coastal/ocean development and marine conservation. His ongoing dissertation project examines the political ecology/economy of fishery transitions in and around the Indian megacity of Mumbai.



# Chapter 8

## Enhancing the Wellbeing of Tamil Fishing Communities (and Government Bureaucrats too): The role of *ur panchayats* along the Coromandel Coast, India

Maarten Bavinck

**Abstract** Legal pluralism is a prominent feature in the fisheries of Nagapattinam and Karaikal Districts, India, and it is with the role of customary village councils (*ur panchayat*) that this chapter is concerned. *Ur panchayats* still constitute a major force in protecting and facilitating the wellbeing of small-scale fishers in this region. The chapter considers the structure, scope and activities of *ur panchayats* and positions them on a scale running from ‘traditional’ to ‘modern’. It describes their functions with regard to social, economic and environmental dimensions of fisher wellbeing and looks into two contemporary hot issues: the incidence of pair trawling and ringseining. The chapter also examines the value of *ur panchayats* for their counterparts in government. It asserts that although *ur panchayats* engage in multiple wellbeing processes and produce important outcomes, they are independently not able to deal with all the challenges that face small-scale fisheries.

**Keywords** Wellbeing • Small-scale fishing • Village councils • Bureaucrats • Ringseining • South India

### 8.1 Introduction

The wellbeing of small-scale fishing populations depends on a combination of environmental, economic and social conditions. After all, if the fish on which livelihoods depend are unavailable, economic circumstances are defective, and social relations are disturbed, small-scale fishers and their households inevitably face hard times. It is the task of governors to prevent such disruption and, if it occurs nonetheless, to find solutions. This is one side of what is known as the ‘social contract’

---

M. Bavinck (✉)

Department of Geography, Planning and International Development Studies, University of Amsterdam, Amsterdam, The Netherlands

Norwegian College of Fisheries, University of Tromsø, Tromsø, Norway

e-mail: [j.m.bavinck@uva.nl](mailto:j.m.bavinck@uva.nl)

between rulers and those who are ruled (Rousseau 1994). Social contract theory has a long history and is generally, but not only, applied to describe the ideal-typical relations between government and its citizens. In this chapter, I take it as starting point for analysing the role of community-based fisher institutions with regard to the wellbeing of ‘their’ members. I examine the latter from the perspective of well-being thinking, which distinguishes material, relational and subjective dimensions (Coulthard et al. 2011). I am interested in the wellbeing outcomes of *ur panchayat* work, and also in processes and structured relationships of local governance (ibid.: 458–9). My lens is necessarily partial, largely ignoring the role of national and global actors and processes in fisher wellbeing.

Agrawal (2003) has rightly pointed out that community-based organizations rarely meet standards of fairness and consensuality (cf. Leach et al. 1999). Instead, he notes the importance of understanding political relations of domination and resistance, arguing that: “a greater focus on how power works within communities and in the governance of common-pool resources can help strengthen greatly the force of writings on common property” (Agrawal 2003:258). I will contend that although power differences inevitably play a role in fishing communities too, the legitimacy of community organizations depends on the extent to which they are felt to address, if not resolve, general wellbeing issues. The activities of these organizations can thus be held to reflect, if imperfectly, the wellbeing concerns of their membership. A study of the interaction between community-organizations and the fishing population therefore throws light on values that are considered important.

My focus is on the fishing village councils, or *ur panchayats*, of the coast of Tamil Nadu. These organisations, which have roots in the caste-based structure of Indian society, are comprehensive and multi-faceted. *Ur panchayats* constitute a form of what Macaulay (1986) termed ‘private government’, and work with clear notions of territorial prerogative and citizenship. As such, they are partially in competition with government agencies, with which they make up a complicated arrangement of legal pluralism (Benda-Beckmann 2002). By studying the performance of *ur panchayats*, I hope to throw light on the range of their members’ well-being concerns and also highlight the variations that occur.

It is not only the wellbeing concerns of fishers that I will dwell upon, however. Government officials working at the interface with the fishing population have a singular appreciation of the workings of *ur panchayats*, and it is with a reflection on officials’ subjective wellbeing that this chapter concludes. This consideration is in line with the suggestion in Chap. 1 (this volume) that small-scale fisheries and its institutions have value for other parties in society too.

My ethnographic research on fisheries in Tamil Nadu commenced in the mid-1990s (Bavinck 2001) and has continued at regular intervals until the present day. The present chapter draws particularly on a one-month study in Nagapattinam and Karaikal districts that was conducted in the context of the implementation of FAO’s Voluntary Guidelines for Securing Sustainable Small-scale Fishing (FAO 2015; Jentoft 2014). This region was chosen for its institutional density and evidence of historical connectivity between fishing settlements. In order to understand the possible variety of roles of *ur panchayats*, about which very little prior information was

available,<sup>1</sup> I made a random sample of every tenth fishing settlement along this coast, leading to a total of five villages. In addition, I added the traditional head village of the region (see below) to the selection. A total of 24–30 h was spent in each village, observing activities on the landing site, and having informal conversations in Tamil with a variety of inhabitants,<sup>2</sup> including at least two members of each *ur panchayat*. I often (but not always) pencilled notes while talking, typing out a fuller report that same day. A short survey of each *ur panchayat* included questions on structure, scope and activities. I also spoke to local dignitaries such as the fisheries cooperative president, Gram Panchayat<sup>3</sup> president, and school headmasters. The final days of research were spent visiting key fisher organizations in the region, attending a fisher meeting, and conducting interviews with government officials. I lastly made an analysis of the data according to topic, discussing results with my Indian colleagues in FishMARC.<sup>4</sup>

Two caveats are in order. Firstly, this study did not allow for a structured assessment of the subjective wellbeing of the fishers concerned or their individual opinions of the *ur panchayat*. I am assuming that the issues that come to the *ur panchayats*' notice are ones that are relevant for the wellbeing of their fisher constituencies. Whether the *ur panchayats* actually meet expectations is a different matter, however, and deserves separate study.

The second caveat is that the Nagapattinam and Karaikal region is characterized by fishing settlements that gather together small-scale as well as semi-industrial fishers. As *ur panchayats* are responsible for entire village populations, it is often difficult to distinguish their specific function for small-scale fishers.

---

<sup>1</sup>I had carried out a brief survey of fishing villages along the entire Coromandel Coast in 1995–1996, selecting every tenth village for study (see Bavinck 2001: 372–5). The present survey included the five villages that were studied earlier in Karaikal and Nagapattinam districts. Some of these villages had additionally been studied in the context of a set of post-tsunami studies by Praxis. All these documents were useful in providing background material for the current study.

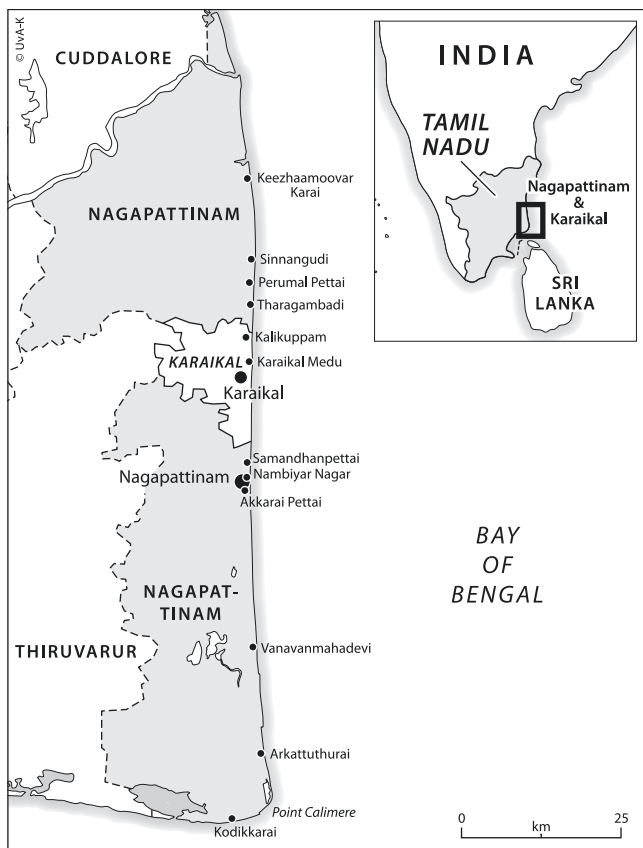
<sup>2</sup>I am more than grateful to K. Subramanian for his companionship in this month of research. His help in translation was very useful, as were his insightful comments.

<sup>3</sup>This is the lowest tier in the political system of India. Panchayat Villages (or the geographical areas over which a Gram Panchayat has jurisdiction), often include several settlements and a mixed population. The Panchayat is thus to be distinguished from the *ur panchayat*, which is the topic of this study.

<sup>4</sup>FishMARC was responsible for FAO's study on civil society contributions to small-scale fishing in Nagapattinam and Karaikal districts (see Bavinck et al. 2015b). The team that carried out the various sub-studies consisted of approximately ten persons. The author was responsible for the *ur panchayat* study.

## 8.2 Fishing Communities along the Coromandel Coast

The Coromandel Coast of Tamil Nadu runs from Point Calimere in the south to the border with Andhra Pradesh in the north and has a length of approximately 400 km (see Fig. 8.1). This coastline contains 237 fishing settlements with a total fisher population of 300,000 (CMFRI 2012), almost all of which belongs to the Pattinavar group. The Pattinavar constitute a traditional ocean fishing caste (Bharati 1999; Bavinck 2001) that has occupied the Coromandel Coast for many generations and possesses a strong system of self-governance. Their settlements are relatively small (500–5000 persons) and homogeneous, with single-caste occupation being the norm. Fishing has traditionally been carried out with small, beach-landing craft



**Fig. 8.1** Research locations in Nagapattinam and Karaikal Districts, Tamil Nadu

called *kattumaram* and a variety of small-scale fishing gears. Ever since the 1960s, however, the government of Tamil Nadu has promoted the use of semi-industrial fishing vessels, or mechanized boats, based in new harbour settings. Along the northern part of this coast, this has resulted in a segregation of small-scale and then semi-industrial fisheries. Along the southern section of the Coromandel coast, however, cohabitation of semi-industrial and small-scale fishers continues. The post-tsunami rehabilitation of fisheries along this coastline has also precipitated a replacement of *kattumarams* by small, motorized, fibre-glass boats.

Nagapattinam District covers the southern section of the Coromandel Coast and extends southward past Point Calimere into the Palk Bay. Karaikal District adjoins Nagapattinam District in the north and belongs not to Tamil Nadu but to the Union Territory of Pondicherry. Both districts were badly affected by the tsunami of 2004 (Salagrama 2006). Relief and rehabilitation organizations working in this region expressed surprise at the strength of *ur panchayats* and at their constructive role in the post-disaster phase (Gomathy 2006; Bavinck 2008; Bavinck et al. 2015a, b).

### 8.3 Ur Panchayats: Structures and Processes

Mandelbaum (1970) points out three meanings for the concept of ‘panchayat’ in India: it is (1) the village council, (2) the village meeting which makes decisions, and (3) the process of consensual decision-making that is followed. He notes that the village meeting is “a council of peers” (1970:291), hereby emphasizing the egalitarian ethos that permeates panchayat proceedings. This spirit of egalitarianism, that coincides with what is often found in fishing communities throughout the world (McGoodwin 2001), typifies village life in the geographical region under consideration. In the following, we use the term *panchayat* to refer primarily to the council that is ‘in charge’ of fisher affairs in each fishing village. It is to be noted that such councils are found in many other parts of the South Indian coastline too.

The *ur panchayats* of Nagapattinam-Karaikal have historically consisted of at least three levels, all of which have carried into the present. They are nowadays strongest at the base or settlement (Tamil: *ur*) level, and this is the aspect to which we will pay most attention. The next level nowadays coincides with the *taluk* (or sub-district). There are five such groupings in the Nagapattinam-Karaikal region, with one *ur panchayat* in each grouping playing the role of *talai gramam* (head village). The fisher population view villages that possess this status as having more power, either because of their population count, or because of their economic wealth and influence. In case of sub-regional issues that need addressing, it is the head village that calls (or is requested to call) a meeting.

The final layer includes the fishing population of the region as a whole, and is known as the Fisher Organization of Nagapattinam (*Nagapattinam Miinavar*

*Amaippu*). Its jurisdiction coincides more or less with a remembered coastal unit of 64-villages, which is held to derive from Chola times (XIIth century). Nowadays, however, it unites all 58 fishing settlements along this coastline (including those from Karaikal). The traditional head of this organization is the *ur panchayat* of Nambiarnagar. More recently, however, this position has been usurped by nearby Akkaraipettai. Although the transition is contested, the underlying causes are clear: Akkaraipettai hosts the largest, and richest, mechanized boat fisher population of the region; the fact that the Tamil Nadu Minister of Animal Husbandry, Dairying and Fisheries at the time of research came from Akkaraipettai provided its *ur panchayat* with additional power and authority.

The sub-regional and regional organizations come to life only upon necessity, and their powers are limited. In Sect. 8.6, I discuss how these organizations struggle to deal with some of the larger challenges affecting the fishing population of the region.

The *ur panchayats* in our sample range in size from 5 to 22 men, with an average age of 41 years. Although all members belong to the Pattinavar fishing caste and live in their respective villages, not all of them are active fishers – some have in fact during their lifetimes diversified into other occupations. In the past, many of the fishing villages of this region possessed hereditary leaders called *naaddaar*, but these have almost ubiquitously been pushed aside; it is now the undifferentiated council that rules. None of the *ur panchayats* under study have functions such as president or secretary; the only exception is the appointment of one or two members to take charge of money matters.

*Ur panchayats* form the pinnacle of a village society that is made up of various family groupings and residential units (Bavinck 2001). In fact, it is these groupings and units that appoint representatives into the *ur panchayat*, with various qualities guiding selection: level of education, experience in fishing, ability to articulate ideas well, size of following, and connections to the outside world. For purposes of taxation, *ur panchayats* make use of a variety of membership lists. Traditionally these lists include the names of all adult fishers; in some of the case study villages this list has been broadened to include all male income-earners (*aal vari*), whereas in others the *ur panchayat* has taken recourse to the government's list of ration-card holders, the membership of fisheries cooperative societies, a list of vessel owners, the number of houses in the settlement (*viidduvari*), the types of nets owned, or a combination of all these. Some councils auction the right to tax villagers to the highest bidding local businessman. The timing of taxes on individuals or households nowadays generally coincides with the government's distribution of welfare benefits (such as the savings-cum-relief scheme and the off-season relief scheme), when households all have cash at hand. Such taxation provides *ur panchayats* with a financial base – a prerequisite for any kind of self-government.

Although the hereditary system of *naaddaar* has generally disappeared, it has not been replaced by open elections. Rather, most *ur panchayats* opt for a system of nomination, in which past members play a major role. It is important to note that women are universally excluded from participation in *ur panchayats*, despite recent urgings by NGOs and – in rare cases – village women themselves. Women are generally also not allowed to participate in village meetings, but are represented through their menfolk. This is not always, however, appreciated. In Kalikuppam, for example, fisher women complained that *ur panchayat* members did not show interest in the things which bothered women most, such as the solid waste that collects in village streets. Women in Vanavanmahadevi also grumbled that *ur panchayat* members were not listening to them sufficiently.

Counsellors' (*panchayataar*) terms of office vary substantially, with some villages setting maximum terms of 2 or 3 years, while others allow for continuation, depending on public support and the candidate's individual disposition. All villages, however, allow for the instant dismissal of *panchayataar*, which sometimes occurs even within months of appointment. Improper financial management is one of the most common reasons for dismissal. All *ur panchayats* provide for the public scrutiny of accounts at least once a year.

*Ur panchayats* rely largely on 'voluntary labour' for carrying out their tasks. Thus the members of these councils are officially not paid (although they can profit from secondary benefits). Moreover, many of their decisions are implemented not by specialized staff, but by the village population itself. Still all *ur panchayats* employ at least one person: a village crier, known as *kudipillai*, who conveys messages to the population by word of mouth or by modern (loudspeaker) means. Many *ur panchayats* also pay a priest to take care of temple rituals. In addition, each village traditionally has people who play a role in rituals of marriage, coming of age and death. Some *ur panchayats* employ additional staff for cleaning the landing site, or even public space in the settlement as a whole.

The array of sanctions in the *ur panchayat* toolbox has changed over the years, with corporal punishment largely having been replaced by monetary fines. These fines can be quite substantial, depending on the transgression at hand. In addition, the *ur panchayats* possess means of 'public shaming' and, in extreme cases, excommunication from village society. *Ur panchayats* also have the option of proclaiming a stop on fishing, such as for the purpose of village meetings and other important events.

In the end, *ur panchayats*' influence depends firstly on their jurisdiction over the fishing population. The legitimacy of their authority rests largely on a shared, historical identity of belonging to the same caste and community. It is in this perspective that the *ur panchayat* is an expression of social contract, with authority delegated to its council for the common good. The increasing integration of villages in larger

societal wholes and the corresponding decline of their homogeneity obviously puts pressure on the ability of *ur panchayats* to exercise social control— the decline of their authority is most clear in urbanizing environments. In these contexts *ur panchayats* are gradually losing influence to other actors, such as political parties, government agencies, etc. But even those living in urbanized settings understand that *ur panchayats* have a crucial role to play, if only for their protection against outside forces.

*Ur panchayats*' authority also depends on their continued control over coastal and marine space. Thus village lands are generally still held collectively under *ur panchayat* jurisdiction.<sup>5</sup> Other coastal lands, officially registered as *porombookku* (waste lands), are part of their unofficial sphere of influence, with new users of coastal space having to take account of *panchayat* claims. *Ur panchayats* also control beaches adjoining fishing settlements, and adjacent marine waters too. Although no *ur panchayat* in a right frame of mind would think of excluding other fishers from what they see as 'their waters' (as this would also lock their own fishers in), all *ur panchayats* in this region claim the right – in principle – to regulate whatever fishing goes on in contiguous waters. Many current frustrations derive from this right being violated. I return to this situation below.

Until now I have assumed the legitimacy of *ur panchayats* amongst their settlement populations, and their authority over local affairs. Although other research along this coastline (Bavinck 2001) has demonstrated the possibility of crisis in such self-governed entities, none of the sample villages in this study was severely factionalized.<sup>6</sup> There is evidence, however, of *ur panchayats* in the region being dominated by individuals (or groupings thereof), and of the presence of cliques with different priorities.

## 8.4 A Typology of Ur Panchayats

All of the fishing settlements in our sample currently possess a well-functioning (in contrast to a conflict-ridden) *ur panchayat*. These *ur panchayats* vary from each other, however, on dimensions of structure, scope, and activity, and can loosely be positioned on a scale ranging from 'traditional' to 'modern' (see Fig. 8.2).<sup>7</sup> 'Structure' refers to counsellors' background in fishing or in newer occupations. 'Scope' pertains to the evident breadth of *ur panchayats*' concerns: the level of their

---

<sup>5</sup>The villages that were substantially rebuilt in the post-tsunami era have, however, undergone an important change with government insisting that individual titles be provided to houses (see Bavinck et al. 2014).

<sup>6</sup>Factionalism is not a permanent condition but a setback that can affect any *ur panchayat* in the course of time. As time moves on, however, such divisions may be overcome, resulting in renewed legitimacy and performance.

<sup>7</sup>My typology is inductive and based on a personal assessment of the data collected.





through repeatedly in statements made to *ur panchayats* (see Boxes 8.1 and 8.2) as well as to myself. Ur panchayats also play an important role with regard to the outside world, connecting with, or defending against, government. This then is the fourth realm to be discussed.

### 8.5.1 *Social Realm of Wellbeing*

*Ur panchayats*' prime responsibility – and the ultimate justification for their work – is social in nature and can be formulated generally as 'care for the settlement's population'. This concern expresses itself in various ways. From a financial viewpoint, the largest outlay any *ur panchayat* in the region makes is for the annual village temple festival, which lasts several days and draws crowds from the wider environs. The costs of these festivals in the sample villages vary from Rs 500,000 to 2 million per year (US\$ 8–32,000). Festivals are partly a matter of status and identity. They also follow, however, from the conviction that the local female deity is to be suitably propitiated if she is to take care of the village population. Neglect can have harmful consequences, whereas lavish celebration is expected to have real economic and social benefits. Besides a local deity, each settlement also counts supernatural beings relevant for fishing (Bavinck 2015b). Attention for these beings promotes safety at sea as well as the possibility of good catches. It is for all these reasons that the religious activities of *ur panchayats* cannot be dissociated from the inhabitants' sense of wellbeing, and from the hope and expectation of continued wealth from the sea.

Traditionally, as Mandelbaum (1970) points out, the caste-related *panchayats* of India have a role to play in protecting the purity of their caste and its members. Thus the more traditional *ur panchayats* of Nagapattinam-Karaikal continue to discourage inter-caste and so-called love marriages, and watch carefully over the integrity of their womenfolk. For example, in a recent case involving three young men from Poombuhar who were accused of intimidating a woman from Keezhmoovarkarai, the *ur panchayat* imposed a fine on each of Rs 50,000 (US\$ 800).

*Ur panchayats* can also encourage or discourage rural-rural migration of fisherfolk by imposing demands on those wishing to settle in a fishing village. The *ur panchayat* in Vanavanmahadevi thus has the habit of questioning any would-be immigrant severely, afraid that they might introduce unwanted habits and behaviours.

Dispute-resolution is one of the *ur panchayats*' main responsibilities. In the fishing settlements of the study region it is generally understood that – with the exception of serious offences like murder – disputes are preferably handled by the *ur panchayat* and not by the police (which is felt to bring about serious losses in terms of money and time). Fines are actually imposed on those who, without prior consent, do lodge a case at the police station. Here the function of defending the village population against the interference of state agencies – and of maintaining the authority of the *ur panchayat* – comes to the fore. It is interesting to note that the police

often revert cases back to the *ur panchayats*, thereby acknowledging the latter's role in dispute management. Of importance are also the cases where *ur panchayats* act to discourage violence between inhabitants. In Keezhmoovarkarai, for example, the *ur panchayat* recently fined a drunken man severely for having drawn a knife in a quarrel.

The range of disputes handled by *ur panchayats* is wide and reflects the variety of conflicts that characterize closely-knit rural communities. Box 8.1 provides an example of the cases that I was able to observe on the day that I attended an *ur panchayat* meeting. The majority of cases are local in nature. Others, however, involve parties outside the local settlement and are addressed in alliance with other *ur panchayats*. In some cases, an *ur panchayat* goes no further than writing a letter to colleagues in another village drawing their attention and requesting action on a particular case (such as assuring that so-and-so repays his debt). Other matters have broader implications and require joint *panchayat* sessions or the involvement of the so-called head village of the taluk. Where issues have a bearing on the region as a whole, leaders may actually request a meeting of the Fisher Organization of Nagapattinam. The introduction of ringseines is one such instance, which I discuss below.

### **Box 8.1 Examples of *Ur Panchayat* Case Deliberations**

I paid a visit to the *ur panchayat* of Nambiarnagar, that congregates in a community hall on the main street, on the morning of November 5th, 2013. The *ur panchayat* of this village officially consists of 17 members, representing each of the five streets. This morning, however, only seven members have gathered to hear whatever cases are brought forward. The hall has been arranged by the *kudipillai*, who otherwise plays a supportive role. A number of chairs are positioned at the front for the councillors, with petitioners coming forward to present their cases. Decisions are noted in a leather-bound record book. Jeyabal, a man of approximately 50 years, plays the lead role, with younger men sitting to the side. In the hour that I spend with them, the following cases are brought forward:

1. A well-dressed woman, who turns out not to be the complainant but an intermediary, comes forward and states that a loan that was given for taking a share in a ringseine net has not been repaid. The councillors discuss but there are different accounts of to whom the money should go, so they decide to postpone a decision and do more investigation.
2. A man comes forward to complain that he is not on the list of recipients of the Fisheries Department's subsidy scheme. He is scolded by one of the younger councillors: "How dare you go to the Fisheries Department without first coming here?" "The *ur panchayat* decides to have the *kudipillai* make an announcement: tomorrow at 10 am everyone who has not received money should visit the *ur panchayat* bringing relevant documents.

(continued)

**Box 8.1** (continued)

3. A woman grumbles that an earlier decision by the *ur panchayat* about the location of a garden wall is not being accepted by her neighbour. The *ur panchayat* decides to send the *kudipillai* to inform the neighbour to cooperate. If he doesn't, the *ur panchayat* suggests that it will personally oversee the construction of the wall.
4. A man complains that a loan which he gave to a person not living in the village has not been returned. One of the councillors reproaches him: "Why have you gone to ask for repayment again, while I myself promised to go after this! I hereby give you a Rs 3000 (US\$48) fine!" But Jeyabal intervenes: "let him apologize instead." The man stands, folds his arms before him in a gesture of obedience and asks for forgiveness.
5. A man comes forward. He represents a group of four trawl owners who have given catches worth Rs 520,000 (US\$ 8320) to an outside trader, who has not paid up. He is questioned: "Why did you give so much fish to the man without asking for a down payment?" The man: "We have worked with him previously, and he has always paid up." A councillor: "What do you expect us to do? If we send a letter to the trader's panchayat it will take time to get a response!" The man: "Please do send a letter."

Most of the functions discussed above belong to *ur panchayats'* traditional array of tasks. To this set have been added a number of new ones. The fishing population of the region has now recognized the value of education for children's ability to diversify into other employment sectors. Education levels are therefore rising for boys and girls alike. *Ur panchayats'* role in this process is, however, sometimes remarkable. Thus in Kalikuppam the *ur panchayat* has committed itself firmly to supporting the government-funded, elementary school in the village. Not only is it obliging parents to send their children to this and not to other schools in the vicinity; it pays the salary of a supplementary teacher, contributes additional school materials, and helps make public events a success. This *ur panchayat* is exceptional in its promotion of education, but there is evidence that other *ur panchayats* too respond to needs as they emerge in the context of parent-teacher relations.

Sanitation is the other field in which *ur panchayats* are making a mark. While post-tsunami housing programmes tried to address the sanitation needs of individual households by providing toilets and drainage facilities, solid waste management has remained a problem in many fishing villages. Following pilot projects initiated by NGOs in the post-tsunami period, two of the case study *ur panchayats* are now organizing (and paying for) the collection and disposal of solid waste, obviously contributing to public health. But such involvement is not universal, such as reflected in the attitude of women in Kalikuppam mentioned above.

### 8.5.2 *Economic and Environmental Realms of Wellbeing*

With the majority of their populations depending on fishing and fish trading for a livelihood, the *ur panchayats* of the Nagapattinam-Karaikal coast naturally involve themselves in fisheries matters. Dispute management was already discussed in Sect. 8.5.1. Every person I spoke to in the region, including government officers, agrees that the disputes that take place over fishing matters – the quarrels over nets getting entangled or vessels damaged, the fish that has been bought but not paid for, the loans that are not settled – are brought to *ur panchayats* for resolution and nowhere else. Here again, if such disputes involve parties outside the village, other *ur panchayats* are involved.

The rule-setting behaviour of *ur panchayats* is structurally significant. Bavinck and Karunaharan (2006) have noted that *ur panchayats* along the Coromandel Coast have a strong history of regulating gears that they feel are harmful to the profession. Although this tradition appears to have declined in the Nagapattinam-Karaikal region with the emergence of semi-industrial fishing in the midst of small-scale fishing populations, it is still practiced. Thus four of the six sample villages have banned the use of the snail net (*sanguvalai*, or *kachaavalai*), which is also prohibited along the northern Coromandel Coast (cf. Bavinck 1996, 2014). The use of this net is felt to interfere with the marine food chain and causes the disappearance of species that are important for fisher livelihoods. Additionally this net is expected to have a negative effect on elderly fishers who depend the most inshore on fishing grounds. As the snail net is always set close to shore, elderly fishers will suffer most from its environmental impact.

The most significant evidence of *ur panchayats*' concern for regulating harmful fishing gear derives, however, from the current debate on the prohibition of pair trawls and ring seines. Some villages have actually prohibited these gears, while others are more permissive. The discussion that takes place over these matters at the regional scale is fierce and still undecided.

While prohibition of gears constitutes one form of regulation, the prevention of negative interactions with other gear types is another. Thus the small-scale fishers of Keezhmoovarkarai, who depend on longlining, have successfully intervened with nearby trawl centres to limit trawl fishing in the inshore zone. And in the 26-village *ur panchayat* meeting that took place in Tharangambadi on November 8, 2013, the same village negotiated a clause that limits ringseine fishing in the areas in which longlining is also taking place.

Keezhmoovarkarai presents the clearest example of *ur panchayats* regulating the market at the landing site. After a marketing cooperative run by a NGO was put on hold over a financial matter, the *ur panchayat* appointed a supervisor to structure the sales process and make sure that traders pay their suppliers within 24 h. In addition it employed some men and women to clean the marketing hall on a daily basis. For these services the *ur panchayat* charges traders 5% of the sales value.

Safety at sea is an issue of key concern for small-scale fishers: what if an engine fails or the men – for whatever reason – do not return to shore as expected? In these circumstances, *ur panchayats* take charge of organizing the rescue operations. An example of this is an event in where rough weather caused two crew members in a fibreglass boat from Vanavanmahadevi to be thrown overboard in February 2013. The *ur panchayat* immediately organized a search party of local fishers, which, however, was unsuccessful. It then rented three trawlers for a total of Rs 30,000 (US\$ 480) to continue the search. The corpses of the two fishers were eventually located many kilometres to the south.

### **8.5.3 Promoting Wellbeing Through Interventions with Government**

I have described in previous sections how *ur panchayats* manage their own affairs. With the development of state power and influence in the coastal zone, other qualities have, however, come to the fore. The relevance of the outside world for fisher affairs manifested itself most clearly in the post-tsunami period, when relief and rehabilitation were important concerns. It was then that *ur panchayats* realized the relevance of having representatives capable of negotiating with outside agencies, and replaced older, illiterate leaders with younger men who had been to school and knew how to talk to officials (Gomathy 2006; Bavinck et al. 2015a).

Interventions of *ur panchayats* with government can be divided into two types. The first type is directed towards maintaining village autonomy and protecting villagers from untoward interference. The rule of discouraging the involvement of the police in village matters – mentioned above - is one expression hereof. *Ur panchayats* similarly guard their autonomy vis-à-vis other government agencies, such as the Fisheries Department. I noted in Box 8.1 that a counsellor in Nambiarnagar scolded a fisher for having approached the Fisheries Department directly, rather than having done so through the *ur panchayat*.

The other intervention type is aimed at obtaining access to crucial government services. The Fisheries Department is currently the key agency for a variety of fisher welfare schemes, as well as for the distribution of fishing material and the realization of projects such as harbour sites. It is important also for matters such as the registration and licensing of boats. *Ur panchayats* are therefore well aware of the persons who occupy positions such as of Fisheries Inspector and Assistant-Director, and approach them directly or indirectly if needed. Box 8.2 provides evidence of the range of mediations that *ur panchayats* carry out with regard to government departments.

**Box 8.2 Example of *Ur Panchayat* Mediations with Government**

The *ur panchayat* of Karaikalmedu, a large fishing village on the outskirts of the town of Karaikal, is well-organized. Its office, located on the temple square, contains an orderly set of files and a blackboard noting the prescribed fisher holidays of the year. The *kudipillai* also makes use of an advanced loud-speaker system to inform villagers of important matters. On the evening of November 4th, 2013, I visited the office and noted the following engagements with government departments. Four council members, including two elder men, were present.

1. Two villagers come forward to ask for a recommendation letter for the Electricity Board. The Electricity Board apparently requires proof of identity and residence in the village. The *ur panchayat* asks the *kudipillai* to draw up a letter that is immediately signed and dispatched.
2. A young man has bought a small-scale fishing boat from his brother, but it has not been officially registered in his name. The Fisheries Department is now handing out ice boxes free of cost, but only to official owners. Could the *ur panchayat* provide him with a letter testifying to his ownership? The councillors verify whether the young man is registered with the village cooperative society, and then issue a letter immediately.
3. A man requests a letter testifying to his residence, so that he can apply as a member of the village cooperative society. This would make him eligible for various schemes of the Fisheries Department.
4. A group of men come in to complain about the delayed allocation of governmental relief funds regarding the 45-day closed season in April/May. One of the councillors explains that there has been some mix-up at the Fisheries Department, and that they should now re-apply for these funds. He promises that they will receive the money.
5. Another group of residents complains that the money due under the Fisheries Department's saving-cum-relief scheme of 2011 has not yet been distributed. The *ur panchayat* orders the *kudipillai* to make a public announcement asking all eligible villagers to resubmit their documents. The *kudipillai* is then to ascertain who has not received the stipulated fund; the *ur panchayat* will then make sure that it is obtained. However, a councillor warns those who have gone directly to the Fisheries Department to complain about this matter not to do so ever again; in that case they would be fined by the *ur panchayat*.

Other government agencies provide a range of supplementary services. Gram Panchayats are responsible for local roads, provision of water, and street lights. They also coordinate government schemes such as the National Rural Employment Guarantee Act. Members of the Legislative Assembly (MLA) and Members of Parliament (MP) are useful for tabling a variety of bigger village needs, whether it is a health facility, a school, solid waste collection, or a solution for the rising price of fuel. *Ur panchayats* constitute the prime fisher platform for deciding on and instigating such action.

## 8.6 Engaging with ‘Hot’ Fisheries Issues

In this section I sketch the role of *ur panchayats* with regard to two hot small-scale fishing issues. The first is pair trawling. The government of Tamil Nadu introduced pair trawling for schools of pelagic fish in the late 1980s but prohibited it again in the year 2000, following vehement protests from small-scale fishers throughout the state. In the meantime, however, it had been adopted by a limited number of trawl owners in harbour towns like Nagapattinam. These owners enjoy the patronage of politicians and administrators and have continued operations despite the ban. Small-scale fishers have protested vehemently, arguing that pair trawling depletes the marine environment and is moreover very unfair, providing benefits to only a limited category of fishers. The second hot issue is the practice of ringseining. Ringseining has come to this coastline from Kerala, where it has been carried out since the 1980s. Although ringseining too is officially banned, a growing number of small-scale fishers (in collectives) and some trawl operators are taking it up.

The nature of the dispute differs importantly from one gear to the other. Pair trawling in this region is practised by only a small group of large trawl owners with political support: its locus lies in harbour towns. Ringseining, however, is largely carried out by groups of small-scale fishermen, and results in social conflicts within the small-scale fishing population. Whereas pair trawling fishers blame ringseiners for the problems occurring in fishing and the other way around, ringseining tends to be a divisive issue within the small-scale fishing population itself. Table 8.1 contains provisional figures on the current scale of ringseining in Nagapattinam-Karaikal.

Table 8.1 demonstrates that although the number of settlements in which ringseining was occurring at the time of research still made up a sizeable minority, it might well develop soon into a majority. The reason for this is that the technique of ringseining is extremely popular among small-scale fishers due to the promise of large economic returns. These stand in contrast to the decline of earnings from most other kinds of fishing in the region. Still, many fishers, and their *ur panchayats*, have serious reservations about ringseining, arguing that it results in a decline of total biomass and benefits a few to the exclusion of many. It is for this reason that a num-



**Table 8.1** Ringseine (RS) activity in Nagapattinam-Karaikal (N = 58)

	Nr of settlements	% of total
Settlements with RS	19	33%
Settlements without RS	39	67%
Settlements that banned RS	5	9%
Settlements planning RS	11	19%
Total settlements	58	

Source: Summary of oral information from key respondents

ber of *ur panchayats* have actually banned the use of the gear. But *ur panchayats* are also gathering at higher institutional levels to discuss the matter.

A 64-village *ur panchayat* meeting was, for example, held in Nagapattinam in May 2013 to discuss the future of pair trawling and ringseining in the region. While the gathering decided to prohibit pair trawling with immediate effect, ringseiners were given 3 years to phase out their operations. These decisions were put to paper, with all delegations adding a signature to the agreement. Implementation of both measures is proving hard, however. As far as ringseining is concerned, there is significant momentum for actually increasing – not decreasing – the number of operations. The *ur panchayat* of the head village of Tarangambadi Taluk, a village of the same name, thus organized a meeting on November 8, 2013, about the fact that its fishers would like to commence eight new ringseines in 2014. This meeting was attended by representatives of the constituent *ur panchayats*; it decided to allow the new ringseines for 2 years (until the deadline stipulated by the 64-village agreement), but only in locations where it would not interfere with the operation of other fishing gears. This compromise is indicative of the manifold dilemmas involved. Various respondents voiced serious reservations about the likelihood that ringseining would actually be eliminated in 2016 as planned.

## 8.7 Ur Panchayats' Value for Government Bureaucrats

In the previous pages I concentrated attention on the role of *ur panchayats* for village fishers, highlighting where possible their relevance for the small-scale sector in particular. I have also noted how these institutions stand at the interface with government, defending and enhancing village interests. Section 8.3 referred to the fact that in the wake of the 2004 tsunami, relief and rehabilitation organizations expressed open admiration for the performance of *ur panchayats*. But in normal life too, *ur panchayats* have significance for the outside world.

Bavinck (2015a) discusses a case of fisher conflict along the northern Coromandel Coast, which brought in the Fisheries Department and the Police Department too. In this publication I argue that:

Fisheries Department officers have bad memories of times they have tried to steer events in fishing communities, only to find that their often well-intended efforts generated waves of resistance. Time and time again, Department officers stress with experience that fisheries regulations must emanate from the fishers themselves if they are to be successful. Otherwise, the officers explained, regulations would likely be dead on arrival. Introducing measures that lacked fishers' support was overplaying one's hand (Bavinck 2015a: 119).

This tactical reasoning seems to hold true for government officials in the Nagapattinam-Karaikal region too. Besides being considered generally more effective, the relegation of many village affairs to *ur panchayats* also reduces the burden of officers tremendously. By leaving fisheries disputes to *ur panchayats* to handle, the police and the government courts are relieved of unwanted responsibilities. The same holds true for the delegation of many Fisheries Department affairs. The fact that the always over-burdened officials of this department rarely visit the coast, but rather let *ur panchayat* leaders visit them, is an expression of the entrusting of many practical matters to these institutions.

## 8.8 Concluding Remarks

I have situated this case study on the role of community-based fisher organizations, or *ur panchayats*, in the Nagapattinam-Karaikal region within the parameters of social contract and wellbeing theory. My argument has been that these organizations, like ideal-typical state governments, have an obligation to guard over and promote the collective wellbeing of their village populations. Indeed, I have noted that councillors are easily replaced when they are felt to be lacking.

I pointed out four realms in which *ur panchayats* realize wellbeing outcomes: social affairs, economic affairs, environmental affairs, and relations with government. Box 8.1 provides examples of occurrences addressed by *ur panchayats* in the social and economic realms. Box 8.2 illustrates the variegated functions *ur panchayats* play in mediating between villagers and a variety of government agencies. Their environmental role emerged primarily in their fisheries rule-making activities, with particular issues (pair trawling and ringseining) being contentious and difficult to resolve. In all this, I have pointed out the mix of interests that result from the mingling of small-scale with semi-industrial fisher populations in this region.

The performance of *ur panchayats* builds on structured relationships between family groupings and their gendered representation in a localized governance structure. This structure achieves solidity from a long and shared maritime profession and a common social identity. *Ur panchayats* also entertain complementary relations with government agencies, with regular expectations. It is striking to observe the extent to which *ur panchayats* guard their prerogatives toward government agencies such as the police and the fisheries department.

But *ur panchayats* are not identical. One of the conspicuous outcomes of this study is the diversity of *ur panchayats* in terms of structure, scope and activities. I have attempted to bring order to this variety by organizing them on a scale from

traditional to modern. The assumption is that their respective village populations will occupy corresponding positions on the same scale. A heterogeneity of values, however, is more than likely with some persons' wellbeing under a certain *ur panchayat* being more pronounced than others.

Boxes 8.1 and 8.2, as well as other details in the text point out that wellbeing is, as Coulthard et al. (2011) suggest, a continuously emerging process: a quality that is being realized in interaction between villagers of different kinds and between them and their councillors. To what extent *ur panchayats* in the Nagapattinam-Karaikal regions are successful in generating subjective wellbeing amongst their village populations is to be investigated further. Preliminary results indicate that their performance is at least appreciated by government officers charged with fisheries affairs.

All this is not to suggest that *ur panchayats* provide solutions to all of the many challenges facing small-scale fishers in this part of South Asia. Not only has the Blue Revolution that has taken place since the 1950s resulted in a seriously divided and conflictual fishing sector, with important issues of environmental justice arising (Bavinck and Johnson 2008). Environmental degradation and overfishing are important challenges that cannot be addressed by *ur panchayats* in isolation. Governments perhaps have the lion's share to take care of. But *ur panchayats* are definitely playing their part and will hopefully continue to do so in future.

## References

- Agrawal A (2003) Sustainable governance of common-pool resources: context, methods, and politics. *Annu Rev Anthropol* 32:243–263
- Bavinck M (1996) Fisher regulations along the Coromandel coast: a case of collective control of common pool resources. *Mar Policy* 20(6):475–482
- Bavinck M (2001) Marine resource management. Conflict and regulation in the fisheries of the Coromandel coast. Sage, New Delhi
- Bavinck M (2008) Collective strategies and windfall catches: fisher responses to tsunami relief efforts in South India. *Transforming Cultures* 3(2):76–92
- Bavinck M (2014) Handling fishery conflicts in the context of legal pluralism – a case-study analysis of street-level bureaucracy in Tamil Nadu, India. In: Bavinck M, Jyotishi A (eds) Conflict, negotiations and natural resource management – a legal pluralism perspective from India. Routledge, London, pp 111–127
- Bavinck M (2015a) Handling fishery conflicts in the context of legal pluralism – a case-study analysis of street-level bureaucracy in Tamil Nadu, India. In: Bavinck M, Jyotishi A (eds) Conflict, negotiations and natural resource management – a legal pluralism perspective from India. Routledge, London, pp 111–127
- Bavinck M (2015b) Placating the sea goddess: analysis of a fisher ritual in Tamil Nadu, India. *Etnofoor* 27(1):89–100
- Bavinck M, Johnson D (2008) Handling the legacy of the blue revolution in India – social justice and small-scale fisheries in a negative growth scenario. *Am Fish Soc Symp* 49:585–599
- Bavinck M, Karunaharan K (2006) A history of nets and bans: restrictions on technical innovation along the Coromandel coast of India. *Maritime Studies –MAST* 5(1):45–59

- Bavinck M, de Klerk L, van der Plaats F, Ravesteijn J, Angel D et al (2015a) Post-tsunami relocation of fisher settlements – evidence from the Coromandel coast. *India Disasters*. doi:[10.1111/disa.12113](https://doi.org/10.1111/disa.12113)
- Bavinck M, Vivekanandan V, Sajith S (2015b) Contribution of civil society organizations to small-scale fisheries in Nagapattinam/Karaikal, India. Unpublished report. FAO/FishMARC, Rome
- Benda-Beckmann F (2002) Who's afraid of legal pluralism? *J Leg Pluralism* 47:37–82
- Bharati BS (1999) Coromandel fishermen – ethnography of Pattanavar sub-caste. Pondicherry Institute of Linguistics and Culture, Pondicherry
- Central Marine Fisheries Research Institute (2012) Marine Fisheries Census 2010 Part II. 4 Tamil Nadu. CMFRI, Kochi
- Coulthard S, Johnson D, McGregor JA (2011) Poverty, sustainability and human wellbeing: a social wellbeing approach to the global fisheries crisis. *Glob Environ Chang* 21:453–463
- Food and Agriculture Organization (2015) Voluntary guidelines for securing sustainable small-scale fisheries. FAO, Rome
- Gomathy NB (2006) The role of traditional panchayats in coastal fishing communities in Tamil Nadu, with special reference to their role in mediating tsunami relief and rehabilitation. In: Proceedings regional workshop on post-tsunami rehabilitation of fishing communities and fisheries-based livelihoods, 18–19 January 2006, Chennai, India. International Collective in Support of Fish-workers, Chennai, pp 211–244
- Jentoft S (2014) Walking the talk: implementing the international voluntary guidelines for securing sustainable small-scale fisheries. *Marit Stud* 14(13):16
- Leach M, Mearns R, Scoones I (1999) Environmental entitlements: dynamics and institutions in community-based natural resource management. *World Dev* 27(2):225–247
- Mandelbaum DG (1970) *Society in India*. Two volumes. Popular Prakashan, Bombay
- Macaulay S (1986) Private government. In: Lipson L, Wheeler S (eds) *Law and the social sciences*. Russel Sage Foundation, New York, pp 445–518
- McGoodwin JR (2001) Understanding the cultures of fishing communities: a key to fisheries management and food security. Fisheries technical paper 401. FAO, Rome
- Rousseau JJ (1994 [1755/1762]) *Discourse on political economy and the social contract*. Introduction and notes by C. Betts. Oxford University Press, Oxford
- Salagrama V (2006) 'Post-tsunami rehabilitation of fishing communities and fisheries-based livelihoods in Tamil Nadu, Kerala and Andhra Pradesh, India'. In: International Collective in Support of Fishworkers (eds) Regional workshop on post-tsunami rehabilitation of fishing communities and fisheries-based livelihoods, 18–19 January 2006, Chennai, India. International Collective in Support of Fishworkers, Chennai, pp 159–210

**Maarten Bavinck** is Professor of Coastal Resource Governance at the University of Amsterdam as well as at UIT – The Arctic University of Norway. He is a founding member and director of the Centre for Maritime Research (MARE), a social science institute for the study of the human use of coasts and oceans. Maarten focuses his field research on the fisheries of South Asia (India and Sri Lanka), and makes use of legal pluralism, interactive governance, and political ecology approaches. He has authored two monographs, a number of edited volumes and special issues, and many peer-reviewed articles and book chapters. He is particularly concerned with the predicament of small-scale fishers and their fisheries governance arrangements.

# Chapter 9

## Nomadic Fishers in the Hilsa Sanctuary of Bangladesh: The Importance of Social and Cultural Values for Wellbeing and Sustainability

Mohammad Mahmudul Islam and Ratana Chuenpagdee

**Abstract** This chapter employs a social wellbeing approach to assess the importance of small-scale fisheries in delivering viable livelihoods for a fishery-dependent nomadic community on the Ramgati coast in the Meghna River system of Bangladesh. The nomad communities of focus (known as *Bede*) are a fishing people, living on houseboats and travelling throughout the river ways. In recent decades, they have faced numerous threats and stressors affecting their traditional occupations and livelihoods, including growth in population as a result of the material success of their fishing occupation. The fishing *Bede* have persevered amidst these pressures, however, with positive relational and subjective benefits. The hilsa fishery has been very important as a basis for perpetuating the *Bede* community and culture. The identification of the social, cultural and livelihood contributions of small-scale fisheries through the social wellbeing lens has important implications for poverty alleviation and for the importance of securing sustainable small-scale fisheries.

**Keywords** Social wellbeing • Hilsa fishery • Sustainable livelihoods • Nomadic fishers

---

M.M. Islam (✉)

Department of Coastal and Marine Fisheries, Sylhet Agricultural University,  
Sylhet 3100, Bangladesh

Bremen International Graduate School for Marine Sciences (GLOMAR), University of  
Bremen, Bremen D - 28359, Germany

e-mail: [mahmud2512@googlemail.com](mailto:mahmud2512@googlemail.com); [mahmud.cmf@sau.ac.bd](mailto:mahmud.cmf@sau.ac.bd)

R. Chuenpagdee

Department of Geography, Memorial University of Newfoundland,  
St. John's, NL A1B 3X9, Canada

e-mail: [ratana@mun.ca](mailto:ratana@mun.ca)

## 9.1 Introduction

The economic, social and cultural importance of fish and fisheries is immense in Bangladeshi society. Small-scale fisheries are inherent to the tradition, culture and heritage in Bangladesh – as one old adage goes, ‘*Mache Bhate Bangali*’, meaning that fish and rice make a Bangladeshi. Economically, the income from fishing is instrumental for wellbeing because, in many cases, this is the only means for households involved in fishing to access other goods and services such as health and education (Islam 2011; Rahman et al. 2002). Fisheries provide at least 60% of available sources of protein in Bangladesh, contribute 4.39% to GDP and employ directly and indirectly about 10% of the total population (DoF 2014). Fisheries products attract high prices in both local and export markets, generating wealth and contributing to improved livelihoods and wellbeing for millions people in Bangladesh, and to the wider society and national economy (Islam 2011; DoF 2014). Yet, the sector fails to garner adequate attention and support from the academic and policy arenas, and much of the population that participates in fisheries, especially from small-scale fishing communities in remote areas, remains in abject poverty. The Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines), recently adopted by FAO member states (FAO 2015), are likely the most important instrument that can have positive effect on the wellbeing of small-scale fishers. But until the guidelines are properly implemented, small-scale fishers will remain exposed to risk and be vulnerable to poverty and other livelihood concerns.

Small-scale fisheries are often neglected because fishers are considered culturally low class and they are geographically isolated and scattered, socially excluded, economically deprived, and politically voiceless (Islam 2011; Rahman et al. 2002). The importance of fisheries is also understated because the majority of small-scale fisheries values, including social and cultural values, and values associated with coastal and marine ecosystem services, are not captured in markets or in traditional valuation methods (Murray et al. 2011). Most contemporary research often evaluates small-scale fisheries as a vehicle for income and employment, even though fishing is important for more than just economic reasons (Gatewood and McCay 1988). Fishing is not only a means to address fishers’ impoverishment in a material sense but is also an activity that provides satisfaction and comfort (Bebbington 1999; Gudeman 2001). In other words, fishing is more than just a livelihood, it is ‘a way of life’ (Gatewood and McCay 1988: 126; Onyango 2011), and it provides important social and cultural values to the people involved. That means many fishers choose to stay in fishing not for economic benefits alone but for multi-faceted reasons that lead to job and life satisfaction (Pollnac et al. 2001; Pollnac and Poggie 2008).

Capturing the social and cultural dimensions of small-scale fisheries is imperative not only for improved management of fisheries resources but also for securing sustainable livelihoods of fishing peoples. Incorporating different aspects of small-scale fisheries into management allows for better alignment between the system that is being governed and the governing system, increasing thus the likelihood of

success. Similarly, policies and management decisions sensitive to the characteristics and the needs of small-scale fishing communities are likely to lead to sustainable livelihoods for small-scale fishers. In contrast, the narrow valuation of small-scale fisheries as ‘conglomerates of petty fish traders’ and the treatment of small-scale fishers as ‘rational economic maximizers’ could have ramifications for the well-being of small-scale fishers and the fisheries system, for instance by disrupting the social, cultural, and historical embeddedness of small-scale fisheries (Johnson, Chap. 1, this volume).

Taking a hilsa shad (*Tenualosa ilisha*) river fishery as an illustrative case study, the chapter explores the livelihoods of the *Bede* nomadic fishing community in Bangladesh using the social wellbeing approach (SWA) as an analytical tool. The study investigates how the hilsa shad fishery contributes to the material, subjective and relational wellbeing of nomad fishers, their families and the wider population of Bangladesh. It also makes a comparative analysis of nomadic fishing people and nomadic people not involved in fishing to determine the importance of fishing as a livelihood in delivering social wellbeing. At the end of the chapter, the study also explores the intersection between SWA and sustainable livelihood approach (SLA) in describing the livelihood situations of nomadic fishers. This study is primarily a reanalysis of data on livelihoods collected in 2011, and supplemented by a short field visit in the same community in May 2015.

In Bangladesh, there are about 80,000 nomads who are mostly illiterate and extremely poor. Their cultural existence is under serious threat due to socio-economic pressures and ecological changes to their environment. There is little published research that explicitly addresses the well-being of nomad communities in Bangladesh. However, there are calls for preserving their culture and traditions and addressing their basic human rights to food, health, education, dignity and peace (Sarker et al. 2013; Khan 2009). This chapter aims to address poverty, sustainability and human wellbeing issues of the nomadic fishing population of the Meghna River in Bangladesh. In this study, we use the SWA to enhance understanding of the central role that fishing nomads and their institutions can play in mitigating fisheries resource problems (cf. Coulthard et al. 2011).

The following section provides an overview of the SWA and SLA used to guide the analysis. Section 9.3 describes the study area and methods. Next, the results of the analysis are presented and discussed, followed by some concluding remarks on policy implications.

## 9.2 Social Wellbeing and Sustainable Livelihood Approach

McGregor (2008: 1) defined social wellbeing as: “A state of being with others, where human needs are met, where one can act meaningfully to pursue one’s goals and where one enjoys a satisfactory quality of life”. The Research Group on Wellbeing in Developing Countries (WeD) has developed a three dimensional approach to social wellbeing that includes material, relational and subjective

dimensions (Gough and McGregor 2007). The *material* dimension is related to what a person has in terms of income, wealth, assets, environmental quality, physical health and livelihood concerns, among others. The second dimension, *relational*, is about what a person is able to do or achieve through relationships with others, for instance in the form of networks of support and obligation, social, political and cultural identities. It also includes relations with respect to state institutions and formal structures, which determine the scope for personal action and influence in the community. Finally, the *subjective* dimension of wellbeing is concerned with how a person feels about the quality of life they are able to achieve, e.g. notions of self, individual and shared hopes, fears and aspirations, expressed levels of satisfaction or dissatisfaction, trust and confidence among other things (White 2010: 11; Britton 2012).

The social wellbeing concept makes a valuable contribution to the analysis of the dynamics of coastal communities by providing a framework for understanding what matters to individuals and communities (Weeratunge et al. 2014). The SWA is relevant to small-scale fisheries for many reasons. First, the value of small-scale fisheries cannot be fully captured in terms of their quantitative contributions to society but it has to be linked to the non-reducible qualitative aspects that SWA captures (Johnson, Chap. 1 this volume). Second, small-scale fisheries are multi-objective and multi-scale in nature hence they offer suitable settings for operationalizing the concept of wellbeing. As argued by Weeratunge et al. (2014), all three dimensions of wellbeing are important both in seeking a better understanding of small-scale fisheries and also in developing appropriate fisheries policy. Third, the SWA provides researchers and policy makers with a framework to explore the interplay between the interests and constraints of different stakeholders in a fishery, while offering a sound basis for the design of the institutional arrangements for governance (Coulthard et al. 2011). These authors further suggest that SWA provides important insights for policy processes that focus on reconciling the objectives of poverty reduction and of resource conservation in fishing communities. Nevertheless, like many other analytical approaches, SWA is also not a “fit-for-all” tool. For instance, the strong emphasis on human dynamics may result in less attention on the sustainability of the ecosystem (Armitage et al. 2012).

On the other hand, the Sustainable Livelihood Approach (SLA) has become a very useful tool in development studies, with wide ranging applications in different settings like agriculture, health and urban planning. SLA is people-oriented and provides an integrated view about people’s livelihoods within social, institutional, political, economic and environmental contexts (Bebbington 1999; DFID 1999). The approach is particularly useful as it focuses on several components that speak to the multiple and diverse nature of livelihoods. It allows an understanding of: (i) different risk factors in the external environment, or the ‘vulnerability context’, that have an impact on people’s livelihoods, (ii) the ‘transforming structures and processes’ associated with social relations, social and political organization, government systems, state and private service delivery agencies, resource access institutions, and policy and the policy process, (iii) the collection and combination of different livelihood activities that people adopt and carry out to achieve their



livelihoods outcomes, (iv) ‘livelihood outcomes’ as higher or lower material well-being, reduced or increased vulnerability and poverty, and (v) the resources that are possessed or accessed by people, which can be classified into five different ‘assets’ or ‘capitals,’ i.e. human, financial, physical, natural and social capitals (DFID 1999; Ellis 2003).

There are potentials for synergy between the SWA and the SLA as there are some points of interplay (Armitage et al. 2012). The multi-dimensional perspective of the SWA is consistent with the SLA, particularly with the recognition that development cannot be assessed solely in narrow income or commodity ownership terms (Armitage et al. 2012). Through its notion of five capitals (Farrington et al. 1999), the SLA remains one of the most holistic approaches to assess the socio-economic aspects of fishing communities. It is therefore a perspective that incorporates explicitly or implicitly the material and relational dimensions of wellbeing, although it has a weaker analytical ‘grip’ on the subjective dimension (Weerantunge et al. 2014). The SLA links local wellbeing perspectives to policy to make management decisions in an international development context (Carney 2003). In line with the objectives of the SLA, Coulthard et al. (2011) also argue that social wellbeing is a potentially valuable tool to bridge the gap between natural resource sustainability and socio-economic development, which is one of the typical goals in fisheries policy.

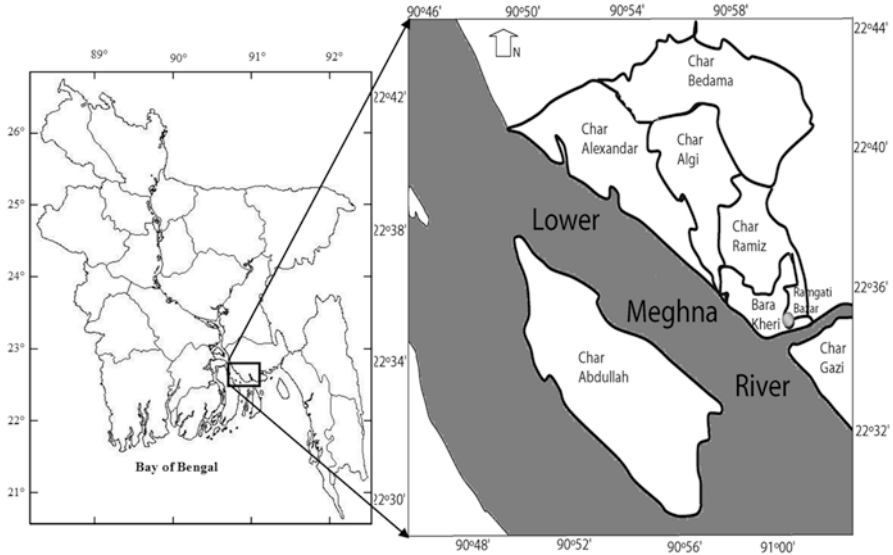
### 9.3 Study Area and Methods

The study took place in the fish landing site of Ramgati bazar in Ramgati upzilla (sub-district) of Lakshmipur district (Fig. 9.1). Ramgati upzilla is situated on the central coast of Bangladesh on the bank of the Meghna River. This section of the Meghna River (about 90 km long), is part of a hilsa sanctuary, which was declared in 2005 by the Department of Fisheries to protect hilsa stocks from over-exploitation.<sup>1</sup> Fishing of juvenile hilsa (smaller than 25 cm in length) in the sanctuary is prohibited from November to June each year. In addition, a 22-day closure is imposed during the full moons in October and November to ensure the safe breeding of hilsa. During peak hilsa fishing season (usually from June to October each year), fishers from the nearby districts of Bhola, Barisal and Chandpur temporarily migrate here, partly in search of better catches. Nomadic fishers are long-term migrants from nearby Bhola and Barisal districts, who have been settled on the Ramgati coast since the 1990s. They particularly prefer Ramgati because it is situated in the middle of their migration trajectories. From Ramgati they can easily move upstream and downstream along the Meghna River to chase fish and to avoid saline water during winter.

The study combines participatory and qualitative methods for primary data collection, which took place from June 2011 to September 2011. A total of 75 individual

---

<sup>1</sup>To protect the hilsa fishery from overfishing of juveniles and brooder fish, the government of Bangladesh declared four hilsa sanctuaries in 2005. A fifth sanctuary was added in 2011.



**Fig. 9.1** Map of the study area

interviews (representing 36% of the total nomadic households) were conducted, using a semi-structured interview format. The interview was designed to collect data using the SLA as main theoretical framework. Since many elements of the SLA can be interpreted using SWA, a good portion of data collected was re-analyzed in the present study. However, since there are some mismatches between the two approaches, a second visit was made in May 2015 to the same community, this time with questions explicitly designed to capture social wellbeing aspects. Since nomadic fishers are mobile and migratory and the site is in a remote location, a convenience sampling method was employed. Interviews lasted about 45 min on average and interviewees included nomadic fishers, men and women. Other non-nomadic people related to the fishery such as fish traders (*bapari*) and land-based fishing crews (who work with nomadic fishers) were also interviewed. In the second phase of fieldwork, several key issues were covered by individual interviews, including livelihood assets, contribution of the hilsa fishery to income and wealth generation, job satisfaction, livelihood strategies during crises, migration trajectories, aspirations for the future, and vulnerabilities in their livelihoods. An open-ended, informal interview was also conducted with some knowledgeable and interested persons who wanted to provide more information. These in-depth interviews were conducted with 10 people, in two to three sessions for each person, with each session lasting about 30 min. In cases of contradictory information, cross-validation interviews were carried out with key informants. The interviews were mostly audio recorded, except when interviewees were uncomfortable with voice recording, in which case interviews were reconstructed from notes taken by a research assistant.

#### 9.4 The Hilsa Fisheries of Bangladesh: Economic, Social and Cultural Importance

Hilsa shad (*Tenualosa ilisha*) constitutes the largest and the single most important fishery of Bangladesh, with an annual catch of about 351,000 mt or about 10.5% of the country's total fish production (FRSS 2014). The fishery employs about 287,000 people, with an additional 2–2.5 million people involved in various stages throughout the value chain, such as transportation, marketing, processing and other post-harvesting activities (Rahman et al. 2012). The fishery has a total annual value of USD 1.3 billion (BOBLME 2012), and contributes about 1% to the GDP of Bangladesh (Rahman et al. 2012), with the government earning an average of \$630 million from export annually (Fig. 9.2). Bangladesh accounts for about 60% of the total hilsa catch within the Bay of Bengal region, with the remainder coming from Myanmar and India (Mohammed and Wahab 2013). The hilsa fishery in Bangladesh is mainly concentrated in the Meghna and Padma rivers and along some coastal areas in Bangladesh (Mohammed and Wahab 2013).

The cultural and heritage value of hilsa in Bangladesh is immense as it is a popular fish in many religious and during festive events. Hilsa is considered 'the king of fish' by most Bengalis and is honored as the national fish of Bangladesh. To celebrate the first day of the Bengali New Year, *Pohela boishakh*, it is customary to have



Fig. 9.2 Hilsa shad constitutes billion-dollar fishery in Bangladesh

hilsa with *panta bhat* (a dish of rice soaked in water overnight). In Bengali Hindu culture, a pair of hilsa fishes (Bengali: *Joda Ilish*) are bought and offered on auspicious days such as during religious festivals. Similarly, the festive event of inviting a newlywed son-in law to dinner is considered to be incomplete unless hilsa is on the menu (Sharma et al. 2012). These celebrations in Bengali Hindu culture in India's state of West Bengal depend on imported hilsa from Bangladesh. In order to meet local demand, the Bangladesh government sometimes needs to impose an export ban on hilsa to West Bengal, causing discomfort between two neighbors particularly during social occasions and religious events.<sup>2</sup> Globalization has made it possible for hilsa to reach the Bengali diaspora across the world. Each year a three-day long Hilsa Festival is observed in Chandpur district, Bangladesh, when various aspects of hilsa along with different cultural programs are featured (Wahab et al. 2014).

### 9.5 The *Bede*<sup>3</sup> – The Riverine Nomads in Bangladesh

The *Bede* are mobile migratory people who live on houseboats and travel throughout Bangladesh. They have roamed Bangladesh's extensive river networks for hundreds of years. Ethnically they mainly belong to the Mong-tong (Mangta) ethnic group of Arakan, Myanmar, who migrated to Bangladesh in 1630s.<sup>4</sup> Culturally, the *Bede* are distinct from the main Bengali ethnic group and they have their own language called *Thet* or *Ther* (Khan 2006), which they use within their own communities. Depending on which clan they belong to, they earn a living as snake charmers, treating snake-bitten patients, diving for river-oyster pearls, as traditional healers and talisman sellers, as fishers, practicing magical tricks or palmistry, or as sellers of utensils, jewelry and spices. Modernization of Bangladesh society has marginalized these professions, except for fishing, because people no longer go to the *Bede* practitioners for traditional treatments or recreation. Thus, the income earning opportunities of many nomads has been lost. With reduced income, they often live in chronic poverty, with 98% of the *Bede* living below the poverty line and 95% illiterate. Only 2% of the *Bede* children are immunized against preventable diseases, and the *Bede* households have an average of 7.5 members, compared with the national average of 4.5 (Maksud and Rasul 2006; Halder 2012; Das 2013).

While the majority of the *Bede* still retain riverine dwellings, an increasing number, particularly among the younger population, have moved to permanent accommodations on land. Non-nomadic people generally avoid the *Bede* people because of their unusual lifestyle, food habits, customs and traditions. To overcome such exclusion, nomads are shifting from traditional to more mainstream professions. As a consequence, some authors assert that nomadic culture is slowly dying (Karmakar

<sup>2</sup>The export of hilsa to West Bengal is sometimes put on the agenda of bilateral discussion between Bangladesh and India. Hilsa is often sent as a gift of well wishes to India at the state level.

<sup>3</sup>The term *Bede* and nomad are used interchangeably in this chapter.

<sup>4</sup>Some nomads trace their origin from the Bedouin of Arabia, so their name is derived as *Bede*.

and Khan 2014; Das 2013). In addition to social pressure, environmental changes and pollution have caused many rivers, canals and streams to dry up, limiting possibilities for nomads to migrate to remote areas to make a living (Khan 2009). In recent years, the Bangladesh government has launched a campaign to motivate the *Bede* to live in government-built homes, for ease of access to health and education services. The government also gave them the right to vote for the first time in 2009. While some nomads are giving up their nomadic way of life due to economic pressures, the distinctive culture of the *Bede* remains. Given that this uniqueness is part of the cultural mosaic of Bangladesh (Maksud and Rasul 2006), *Bede* culture should be better understood, recognized and nurtured.

## 9.6 The Case Study of Nomad Fishers in the Meghna River Estuary

This case study of social wellbeing is about the *Bede* community that settled in Ramgati bazar of Lakshmipur district along the banks of the Meghna River. The fishing *Bede* appear to have escaped the extreme pressure facing the larger *Bede* population. Through fishing, they have obtained material success, which has had relational and subjective benefits. *Bede* fishers are full time migratory fishers who move along the length of the Meghna River (Fig. 9.3). They experience a slack fishing period in winter (December to February), when the fishable area in the river gets



**Fig. 9.3** Nomad fishers' fleet in the Meghna River, Bangladesh

constricted and saline water intrusion from the estuary causes the retreat upstream of freshwater. The *Bede* move up the river to find suitable fishable areas and to avoid the increased salinity in the river, which makes the water unfit for daily uses like bathing and cooking. Salinity change also causes a reduction in the availability of their target freshwater species. In their migration trajectory, nomad fishers settle for 6–8 months each year in Ramgati, where the study took place.

Nomadic fishers mostly depend on the hilsa fishery for their employment and income (Table 9.1). Living on the water, they have easy access to fishery resources and all able-bodied *Bede* are employed in fishing. The majority of the interviewed nomadic fishers expressed their satisfaction with their fishing income, which ranges from 80 USD to 220 USD per month, depending on manpower involved and the type of fishing technology employed. Income can even sometimes exceed 260 USD in a day during the peak hilsa fishing period. Fishing gives them protein, food security and cash for buying basic dietary needs such as the staple food rice. It is estimated by some key informants that from 80 to 90% of the animal protein consumed by nomadic fishers comes from their own catch. Fishing income also helps in improving their shelter situation, as savings from fishing income are normally used to buy a boat designated for fishing while the original one is retained as a dwelling. Some nomadic fishers were found to buy land to make more permanent houses for family members.

In their fishery-dependent riverine way of life, nomadic fishers experience restrictions of hilsa fishing during the closed season, seasonal fluctuation in fish availability, and subsequent income shortfalls due to low catches. They overcome these stressful situations by adopting a number of strategies that include spatial mobility and the use of multiple fishing gears depending on species availability. Most nomads have at least five types of fishing gears and one fishing boat. “*They pile up different nets like storing seeds of food grains by farmers*” said one key informant. For instance, they use different types of gill nets with various mesh sizes for catching adult hilsa (*Tenualosa ilisha*), juvenile hilsa (*jatka*), croaker (*Otolithoides pama*), pangus (*Pangus* species), and cat fish (*Arius* species). Some of them also use baited hooks. Depending on the seasonal availability of certain species, they use specific fishing gears such as gill nets, which enable them to switch target species easily, thus taking advantage of the full potential of their productive assets.

As career fishers who have lived on the water for generations, nomadic fishers possess strong ecological knowledge, particularly with regard to finding rich fishing grounds. One nomad fisher said “*We were born on the river, so we know the river better. We have experience so we can catch fish from deeper waters. We know which fish eats which type of bait and which ingredients are needed to prepare these baits*”. Sometimes land-based non-nomadic fishers follow nomadic fishers, especially during the pangus season, in order to identify productive fishing grounds. Once nomadic fishers identify a fish habitat and get a good catch, the next day local non-nomadic fishers will gather in that area. “*Nomadic fishers earn more than local non-nomadic fishers with the same fishing gear - mainly due to the skills of the first group and their fishery related knowledge,*” said one fish trader at Ramgati bazar. The cultural distinctiveness of nomadic fishers is also reflected in their own

**Table 9.1** Summary of the hilsa fishery's contributions to the social wellbeing of nomadic fishers, fisheries related non-nomadic communities, and the wider society of Bangladesh

Social wellbeing elements	Nomadic fisher	Nomadic fisher community	Non-nomadic fisheries related groups	Wider society, government, and humanity
<b>Material:</b> (income, wealth, assets, physical access to natural resources, institution, a healthy environment, adequate shelter, and food security)	Income generation, year round employment, strong ecological knowledge of fisheries	Employment opportunity for marginalized ethnic group, own language or dialect	Main economic activity of the area reaching non-nomadic residents such as fish traders, waged crews, employment in supporting necessary supplies e.g., ice, fuel and fishing gear parts	High economic value to national economy, value in export trade. Very high 'market' value both domestic and global market
<b>Subjective:</b> (Identity, perceptions, aspirations, beliefs, values, norms, satisfaction)	Forefather's profession, part of identity with strong feelings of happiness, freedom, self-esteem and satisfaction, appreciation from mainstream society	Fishing is the basis of tradition and identity for nomadic community, wealth generated helps to perpetuate the cultural heritage of aquatic way of life	Profitable investment from local fish trader ( <i>bapari</i> ) increases their wealth, satisfaction with business of high-valued fish species, consumption as delicacy	Highly demanded fish both home and abroad, ardently taken as a delicacy and treating others in festivals
<b>Relational:</b> (Social relations, trust, social learning, equity, leadership, social cohesion, sense of belonging, social recognition, reciprocity)	Empathy for fellow fishers, strong family bonding, foreseeing better future for children, relational factors such as having good neighbors and a peaceful co-existence	<i>Sardar</i> leadership, strong bonding in the clan, equity in income sharing, moving together during migration	Patron-client relationship with fish traders, empathy with hired land based crew, equity in income distribution	Important for strengthening bilateral relationship with India, demarginalization of fishing communities

language. Though nomad fishers speak Bengali, some interviewed nomadic fishers expressed their pride in their native Thet language.

Despite their cultural distinctiveness, nomadic fishers maintain close relationships with neighboring land-based communities. They create employment for the latter, hiring them to help with fishing operations, fish processing and marketing and transportation, and by supplying local markets with high quality fish. As one nomadic fisher pointed out “the *whole of Ramgati bazar depends on the hilsa fishery. The hilsa fishery is like fuel oil for a lamp. If incomes from fishing activities dry up, then bazaar activities also decline. When hilsa abounds in the river then the lamp flourishes again. We are also part of this contribution*”. The grocery stores, fuel stops, restaurants, shops for nets and other ancillaries all receive income from nomadic communities. Almost all nomadic fishers hire people who live on land. Working with nomadic fishers offers better income than working with land-based fishers. Most of the land-based fishers are seasonal hilsa fishers, and depending on natural fluctuations of catch, sometimes there is no or little income. On the other hand, nomads are full-time fishers, and when hilsa catches decline, they can use other gear and switch to other species. They are more skilled and more mobile<sup>5</sup> than land-based fishers. In terms of income sharing, nomad fishers are more equitable than land-based fishers. In the land-based sharing system, the total cost of fishing is first deducted from total income. The remaining income is equally divided into two portions, where the first one goes to *mohajon* (the craft and gear owner) and the other is further equally divided among crews and *majhi* (skipper), who receives one extra share. In the case of nomad fishers, who are both *mohajon* and skipper, no extra share is taken. Thus after deduction of fishing operation costs, income is truly equally shared by all members of the fishing team. Some old men and women who go out fishing with their sons, daughters and sons-in-law also get equal shares. “*In our community no able-bodied one is without income, all work,*” said one nomad.

Nomadic fishers are traditional<sup>6</sup> fishers with a strong sense of cultural identity with the profession and the mode of life. They refer to fishing as an occupation of choice, something they prefer and enjoy and that gives them satisfaction and comfort. Some well-to-do families shift family members, especially old, women and young members, to land but they continue fishing; staying on the boat. One nomadic fisher explained: “*The boat has always been my home. It was the home of my forefathers, so was the profession of fishing. I have transferred my family on to land for better living conditions and for better schooling for my children. But I will continue my fishing profession until death because it is my forefather’s profession and by this means I earned all my fortune.*” The nomad fishers interviewed for the study agreed that life on the water is vulnerable to water-borne disasters but the living cost is low since there is no rent and they can freely move to different locations without being

---

<sup>5</sup>Fish catches are largely influenced by the lunar cycle of spring and neap tides. Depending on the lunar cycle and on fish availability, nomadic fishers shift their whole fishing fleet and families to different parts of the river bank.

<sup>6</sup>A few fishers in the interviewed community came to mobile fishing profession by marriage, or due to loss of home from riverbank erosion.



harassed by anyone. On land, on the other hand, settlement by landless people often creates conflicts with local elites over land acquisition. The sense of freedom and enjoyment of life on the boat is expressed as followed, “*Seeing live fish in my net is the best entertainment,*” and “*I can give fresh fish as food to my children, this is my satisfaction, if I were not a fisher, my children would never see a hilsa in a year*”. When asked if they would like their children to be fishers, the responses were mixed. Some nomads already had their children involved in the fishing profession, with no education and trainings in other skills, so they wanted their children to be ‘good’ fishers with sufficient income to lead land-based lives with a better future for the third generation. Younger respondents wanted better education for their children to get a good job on land. Other respondents talked about the intense competition due to high population growth and fishery decline while some mentioned that living on water is becoming hazardous due to water-borne disasters and heavy traffic on river that might hit their boats.

The majority of the respondents expressed their satisfaction with the fishing profession, partly because they earn more than in other alternative occupations. Importantly, fishing is their forefathers’ profession, it is part of their identity, and it is culturally embedded in their lives. The identity dimension can be well understood as the sense of belonging to the aquatic ecosystem, upon which they stay and live and from which they make a living. A few other nomad fishers think that changing to other profession with lower income is “shameful” for them. As one key informant nomad fisher explained, “*nomadic fishers grow up under the open sky, they start to earn at very early age, thus the sense of freedom and independence is very much part of their feelings. So they don’t prefer to be hired by other people. Further, they do not have other training, so cannot get a decent job even if they wish to change their profession*”. In a reply to a question why he likes fishing, one nomad fisher provided several reasons: his fondness for hilsa as the king of the Bangladesh fishery, his happiness with the flexible working hours and leisure time, and also being his own boss within the community. Further, fishing was seen as an easier way to make money (for 1 kg of hilsa, consumers normally have to pay 15 USD; on special occasions such as Bengali New Year celebration, the price may go up to 40 USD).

The subjective dimension of social wellbeing of nomad fishers can be understood within the context of the wealth creation role of hilsa fishery (Table 9.1). A number of nomad fishers have their own savings; some even have savings sufficient to meet demand for significant capital outlays, such as for buying land for sedentary settlement or solar panels to produce the electricity used in their boats. Some nomad fishers even buy life insurance schemes for their family members. Thus, hilsa fisheries contribute to the material wellbeing of individual nomads, nomadic households and community, and beyond. Land-based non-nomadic groups who are hired by nomadic fishers and fish traders to whom nomadic fishers sell their catch also benefit. This wealth creation ultimately contributes to the national economy as the hilsa fishery, as previously stated, contributes 1% of Bangladesh’s GDP. The cultural benefits are also great given the primacy of hilsa in secular and religious festivals, in rituals of welcome for guests, and in national identity.

The role of fisherwomen is particularly important in wealth generation. Traditionally, in all nomadic communities in Bangladesh, women are the primary breadwinners who sell their products, while men stay at home and do housework (see Das 2013). However, in nomadic fishing communities, men and women go fishing together. In addition, women do household work like preparation of food for their husbands and children, washing clothes, taking care of children, while men are predominantly involved in value chain activities such as selling fish and buying fishing gears. In the practice of fishing, women are equally involved in hard work such as paddling the boat to the fishing ground, hauling net from the river, or net mending. Several key informants indicated that in nomadic fishers' households, women usually work the hardest, and crisis situations usually place greater hardship on women than on other family members. In response, as one nomadic fisherwoman put it, they develop saving habits and make their own spending choices. When we asked whether nomadic fisherwomen take part in decision making, all of the respondents replied affirmatively.

The relational dimension of social wellbeing is particularly evident in nomadic fishing communities (Table 9.1). Nomadic fishers usually help each other in different ways, and sharing of fish for food is common. If someone doesn't go fishing, usually a neighbor will give him or her some fish. "*Helping another nomad is like insurance. If you send some gift during his need, he will reciprocate during your period of want*" explained one nomadic fisher. This empathy for fellow fishers also extends to hired local laborers who work as crew for nomadic fishers. When there is no income due to poor catches, a nomadic fisher usually gives money to his or her crew from his own savings so that they can cover their family costs. Nomads regularly offer fish as a gift to hired crews. They also send fish as gifts to land-based local elites to build good relationships with them. They are well known for their hospitality in entertaining people with tea and snacks in local restaurants and for making good relations so that landed people will offer help in the case of a crisis.

Due to insufficient support from government and non-governmental organizations, nomadic fishers rely on strong ties of trust, reciprocity and altruism with family members and community members that shape their participation in the social institution of the *samaj* or clan. All nomad fishers belong to same clan with the leadership of a *sardar* or head. Though nomads are mostly closely linked to their extended family, they usually have separate boats for each nuclear family that forms the extended family network. Bonding capital ties all members of each clan in a very closely knitted manner as they live and move together in adjacent boats (see Fig. 9.3). Clan-based nomads are united, if any member faces any problem such as a conflict with land-based fishers, all nomads will come together to support them. In the community with which we interacted, the *sardar* system appeared able to settle internal conflicts, negotiate and arrange marriages, and take decisions about the timing and routing of new migrations.

Through interviews and informal conversations, we identified a number of constraints and stressors facing nomadic fishers. Because they live on the water, nomadic fishers are disadvantaged by their limited access to infrastructure and facilities such as permanent houses, clean drinking water, road connections, and sanita-

tion, health and education facilities. A few nomad fishers have been able to buy homestead land in Ramgati. The other fishers speak about their aspirations for owning a dwelling on land. Nevertheless, sedentary nomadic fishers still continue and wish to continue fishing as before. Without any permanent home or collateral assets on land, most nomadic fishers do not have access to institutional credit or any governmental support. In response, they tend to develop patron-client relationships with local fish traders known as *bapari*.

In these patron-client arrangements, *bapari* provide fishers with credit (known as *dadon*) to buy nets, ice, and fuel and other daily necessities for their households. In return, fishers show a sense of loyalty towards their respective patrons. This is different from the situation two decades ago when most of the fish traders in Ramgati were involved in the shrimp and prawn post-larvae trade for aquaculture. They avoided nomadic fishers who were, at that time, involved in bait and hook fishing. Driven by over-exploitation, the shrimp and prawn post-larvae stock drastically reduced, which made their trade unprofitable. Fish traders had then to search for other fish species for their trade. At that time, *bapari* gave nomadic fishers fishing gear and cash to catch hilsa and other commercially important fish species. Nomadic fishers quickly became good at hilsa fishing and expanded the range of their productive assets and target species to year round fishing. At the same time, fish traders also have made good money, and thus both parties are generally happy with the arrangement. Almost all respondent fishers take *dadon* to buy fishing gears or to cope with crises. A number of respondents speak about the important role of the hilsa fishery in the demarginalization of their community. This trajectory of change is evident in an observation made by a respondent that, “*Ten years ago land-dwelling people avoided us, they even didn’t respond to our requests to help to unload our fishing baskets from our heads. Now people from the land work with us. They come to us because we are better fishers and we catch good quality fish*”.

## 9.7 Discussion

Globally, a number of studies clearly indicated that small-scale fishers view fishing as a way of life rather than just an occupation. Small-scale fisheries offer a rich and satisfying way of life, a sustainable life with hope for a better future for their children, and a life that permits freedom and the expression of identity (Onyango 2011; Jentoft et al. 2011). Fishing as an occupation leads to satisfaction, happiness, and pleasure, and is not limited to economic or material values (Ginkel 2009). As illustrated in the present study, the small-scale hilsa fishery is important for income, employment and food security for riverine nomads, who are one of the most marginalized professional groups in Bangladesh. These fishers are engaged in fishing not only to address their material impoverishment, but also because they value it as an activity that provides satisfaction, pride and meaning in life (cf. Bebbington 1999; Gudeman 2001).

### ***9.7.1 The Hilsa Fishery as a Vehicle for Adaptation to Changing Situations***

This section presents the contrasting livelihood situations and wellbeing outcomes of two groups of nomads associated with fishing and non-fishing occupations in Bangladesh. Both groups have practiced a nomadic life style as their way of life for hundreds of years. However in the context of rapid environmental changes, the modernization of Bangladesh society, and limited economic prospects, nomads with non-fishing occupations are facing ongoing threats of cultural extinction, and the loss of their occupation, life style and language. New economic and ecological challenges have forced them to leave ancestral occupations (e.g. snake charming, palmistry etc.) and to turn to more standard professions. Thus, they are struggling to preserve their centuries-old culture. Older members of nomadic communities are particularly concerned, as they experience the loss of their cultural heritage and the difficulty of maintaining their preferred life style or acquiring new skills to enter into new occupations (Das 2013). While the younger members prefer to get more socially normal professions, the expertise and skills they develop are non-convertible, generate insufficient income and receive little recognition to the wider society. As a whole, they are seen as outcasts by the wider society, which offers them little space for assimilation. Consequently, nomads are largely excluded from mainstream economic and development process.

The wellbeing scenario is starkly different for the fishery-dependent nomad group. Using river and riverine fisheries as the centerpiece of their livelihoods, nomad fishers are able to maintain their wellbeing. To cope with environmental changes and fluctuating fisheries resources, they adopt different livelihood strategies such as diversification of fishing gears and mobility along the river. These strategies ensure year round income and employment of nomadic and non-nomadic people in fisheries. Living on a boat is certainly risky and challenging, and people may be exposed to waterborne disasters or accidents due to river traffic. Nevertheless, no nomadic fishers interviewed expressed their wish to change their profession; rather they expressed a strong subjective preference for fishing as an occupation as they want to continue the occupation. They are satisfied with their income and continue to trust their forefather's profession to securing better future for the next generation. Interviewed nomads speak about their attachment to their fishing occupation and other subjective dimensions such as feelings of self-esteem, the legacy of their forefathers' profession, the freedom and independence of being one's own boss, aspirations for family wellbeing, and 'fishing as a way of life' (Onyango 2011; Jentoft et al. 2011). Small-scale fishing gives them the confidence to speak about their aspirations for better lives for themselves and a better future for their children.

### 9.7.2 *The Hilsa Fishery and the Wellbeing of Nomadic Fishers and the Wider Society*

As indicated in the above discussion, fishery-dependent nomads are more resilient than other groups of nomads in Bangladesh. This is because they achieve material, subjective, and relational wellbeing from the hilsa fishery and from other small-scale fisheries in the Meghna River system. There are also strong indications that nomadic small-scale fisheries have an important role in the local economy that benefits both nomadic fishers and local land-based groups. The government also earns revenue from the hilsa fishery trade. In nomadic fishing communities, women are active fishers with relevant skills. Their involvement in fishing helps them to exercise considerable control over decision-making and to provide them space for agency. This goes against the assumption that fishing is gender-biased occupation, and shows that fisherwomen can act as agents of wellbeing (Britton 2012). Given that fish is the second staple food after rice in Bangladesh, fishing directly ensures the food security of nomadic households and the broader population. Fishing is thus a key determinant of material wellbeing in Bangladesh that has important subjective implications (Belton 2016). The small-scale fisheries of the Meghna River are, in other words, directly connected to the national food security of Bangladesh.

Despite these indications of occupational success in fishing, the *Bede* fishers typically aspire for their children to have the stable future and prestige of land-based work. This accords with a globally observed view among fishers that “the fishery is an undesirable future for their children” (Trimble and Johnson 2013: 41; Islam 2011). The contradiction between relative economic success and *Bede* pessimism about the long-term future of their occupation can be understood in relation to the considerable material, relational, and aspirational changes in the lives of nomadic fishers in the last few decades. These changes have failed to address the sense of vulnerability felt by the *Bede*. Socially, there is still a widespread feeling among nomadic fishers that they are undervalued and unrecognized in the wider societal context, and that prevalent power relations in Bangladeshi society disadvantage nomadic groups (only in 2009 did nomadic communities achieve their voting rights). The only available option they see to overcome such marginalization is to merge with mainstream society, which would plausibly help them shape a better future for the next generation. The ecological situation of fishery is also important since the *Bede* think that catch is decreasing due to relatively high population growth rates for the nomadic fishing groups and consequently increased competition. The establishment of hilsa sanctuaries reflects the government’s seriousness about improving the health of the hilsa fishery; however little has been done so far to include fishers in sanctuary management (Islam et al. 2016). Given low levels of education, the *Bede* communities feel that they lack the training and appropriate skills to shift to alternative occupations in case fish stocks decline sharply. The *Bede* fishers also feel vulnerable to unsafe living conditions, particularly their high exposure to waterborne disasters (Islam 2011; Islam and Herbeck 2013). The *Bede* fisher communities constitute an important part of the cultural mosaic of Bangladesh

society, thus their contribution deserves greater social and government appreciation to make them feel that they are valued partners in coastal fisheries management (cf. Trimble and Johnson 2013).

### 9.7.3 *Adopting the Social Wellbeing Approach for Livelihood Analysis*

One of the main aims of this chapter is to identify the scope for integrating the SLA into the SWA, and vice versa. One of the aims of the SLA is to link local well-being perspectives to policy to make management decisions in an international development context (Carney 2003). The SWA provides a powerful framework for exploring multi-faceted dimensions of the development process (Belton 2016). Thus the SLA and the SWA are connected and they intersect in ways that are valuable in theorizing and more effectively analyzing sustainable livelihoods, particularly in relation to the five assets that provide the building blocks of livelihoods and well-being (Farrington et al. 1999). The analysis of social wellbeing, as elucidated by the nomad fishing communities of the present study, includes many elements that can be interpreted as the elements of the SLA. Particularly all three elements of the SWA can adequately describe the five capitals of the nomad fishing communities. The material dimension of the SWA adequately addresses financial capital (e.g. income, employment), physical capital (e.g. shelter, physical infrastructure), natural capital (access to natural resources), and human capital (strong ecological knowledge regarding fisheries resources, own language or dialects) of the SLA. Further, social capital (e.g. trust, reciprocity within community members, the relationships between the fishing *Bede* and on-shore patrons) and human capital (e.g. leadership) can be explained through the relational dimension of the SWA. Livelihood outcomes of the SLA result in material well-being of the SWA (adequate shelter, access to natural resources, institutions, food security, wealth, and a healthy environment). SWA is useful to explain the role of relationships and luck in community livelihoods (Armitage et al. 2012). Additionally, in contrast to the SLA, social wellbeing incorporates cultural values, norms, and belief systems, individual and shared hopes, fears, and aspirations; expressed levels of satisfaction or dissatisfaction; trust; and confidence (White 2009), all of which are important to live well. In adopting both approaches it has been possible to analyze the livelihoods of nomadic fishers in a fuller way. Nevertheless both approaches miss some variables that are important for the wellbeing analysis of small-scale fishers. Fisheries are an “inexhaustible mine” of studies on the poverty-fisheries nexus in respect to power relationships (Béné 2003). For poverty alleviation and social well-being in small-scale fisheries it is also important to see how power works (Jentoft 2007; Islam 2011; Belton et al. 2017) but the SWA does not capture it (Armitage et al. 2012). Similarly, the SLA also does not adequately address power inequalities, which still need fuller attention in both approaches. The *Bede* fishers and the larger *Bede* community are largely devoid of

any political power, having almost zero participation in any decision-making that might shape their future. Governance agencies are generally inattentive of their needs and often fail to include them in decision-making regarding the resources on which they depend for their livelihoods. Their dependence on middlemen for security is an illustration of their powerlessness. This evidence of low power creates frustration among the *Bede* fishers and contributes to making fishing an undesirable profession for their future generations.

## 9.8 Conclusion

This chapter presents an analysis of nomadic fishers' livelihoods through a social wellbeing lens. It reveals the important contribution of small-scale fisheries to the wellbeing of communities that depend on them and to the wider society of Bangladesh. It also considers how a mixed SWA and SLA approach generates a more comprehensive and nuanced analysis of the importance of small-scale fisheries in socio-economic and cultural livelihoods of fishing communities.

For the fishing *Bede*, the hilsa fishery first brings material success, which further leads to multiple relational and subjective benefits. All these achievements put the fishing *Bede* in a better position to preserve their culture and sustain their livelihoods when compared to other non-fishing nomadic groups. The relationships between the fishing *Bede* and on-shore patrons indicates the role of hilsa fishery as a vehicle for building extensive social and economic connections that are leading to the demarginalization of the nomadic fishing communities. This is a very distinctive situation, as other nomad groups are on the verge of cultural extinction due to their inability to respond to changing situations. Though mainstream society in Bangladesh cares little about the existence of nomadic culture, it should still be acknowledged as an important part of the cultural mosaic of Bangladesh. This proposition aligns well with the assertion made by the UNESCO Universal Declaration on Cultural Diversity (2001) that cultural diversity is one of the driving forces of development. Governmental intervention directed towards livelihood improvement by nomadic groups should consider the cultural, social, political, and economic dimensions of their livelihoods. At present, governmental response for the rehabilitation of nomadic fishers into stable living conditions and housing only aims at their material survival. Inability to address the cultural, subjective, and relational dimensions of community livelihoods could lead to the failure of policy interventions. This argument is made to acknowledge that people's ability to make choices is an important factor in explaining their actions and behavior. If governmental intervention coincides with the choices of the *Bede* fishers with regard to how they want to live, they could use this freedom to choose a sustainable life (Sen 2009; Onyango 2011). Otherwise, there are likely to be consequences with regards to resource exploitation and livelihood sustainability. Hence, formulation of any strategy for poverty alleviation and sustainable small-scale fisheries should ensure that the *Bede* fishers have an opportunity to pursue the kind of life they want, and whether

they have the environment in which they can choose to live such a life (Sen 2009). In a similar vein, there is a clear and pressing need in Bangladesh to address the challenges faced by the non-fishing *Bede*, the majority of the *Bede* that do not have access to fishing. The nomad fishers face ostracism by other communities, a lack of access to social services, neglect by the government, as well as the absence of NGOs. There is thus a clear need for interventions to maintain *Bede* culture through protecting their livelihoods and creating economic opportunities for them through facilitating their trade and skills.

The management of the hilsa fishery is a priority of the Bangladesh government. The preservation of nomads' livelihoods, cultural identity, and social relations could be a central part of the strategy to sustain hilsa stocks because of the strong indigenous knowledge that the *Bede* have of the fishery habitat in the Meghna estuary. Participation in hilsa management could also be a further factor that positively contributes to the process of demarginalization that appears to be taking place for the fishing *Bede* at present. Given the economic importance of the hilsa fishery for Bangladesh, a strategy of management and development premised on a more encompassing set of wellbeing inspired objectives could also perpetuate important material benefits to Bangladesh.

**Acknowledgements** This chapter is drawn largely from a previous version of the manuscript, prepared for the PhD thesis of the first author, submitted to the University of Bremen, Germany. The PhD project was funded by German Research Foundation's Excellent Cluster Initiative. The authors would like to thank the two editors, Derek Johnson and Julie Urquhart, for their very useful comments.

## References

- Armitage D, Béné C, Charles AT, Johnson D, Allison EH (2012) The interplay of wellbeing and resilience in applying a social-ecological perspective. *Ecol Soc* 17(4):15
- Bebbington A (1999) Capitals and capabilities: a framework for analyzing peasant viability, rural livelihoods and poverty. *World Dev* 27(2):2021–2044
- Belton B (2016) Shrimp, prawn and the political economy of social wellbeing in rural Bangladesh. *J Rural Stud* 45:230–242
- Belton B et al (2017) Labour, identity and wellbeing in Bangladesh's dried fish value chains. In: Johnson D, Acott TG, Stacey N, Urquhart J (eds) *Social wellbeing and the values of small-scale fisheries*. Springer, Cham
- Béné C (2003) When fishery rhymes with poverty: a first step beyond the old paradigm on poverty in small-scale fisheries. *World Dev* 31(6):949–975
- BOBLME (2012) Management advisory for the bay of Bengal hilsa fishery. Regional fisheries management advisory committee. Bay of Bengal Large Marine Ecosystem (BOBLME) project. Phuket, Thailand, p 6
- Britton E (2012) Women as agents of wellbeing in Northern Ireland's fishing households. *Maritime Stud* 11:16
- Carney D (2003) Sustainable livelihoods approaches: progress and possibilities for change. Department for International Development, London
- Coulthard S, Johnson DS, McGregor JA (2011) Global fisheries in crisis: a social wellbeing approach to poverty and sustainability. *Glob Environ Chang* 21:453–463



- Das B (2013) Rough sailing for Bangladesh river-gypsies. <http://www.Aljazeera.Com/indepth/features/2013/01/201312181138776540.Html>. Accessed 8 July 2015
- DFID (1999) Sustainable livelihoods guidance sheets. Numbers 1–8. Department for International Development, London
- DoF (2014) Annual Report, 2013. Department of Fisheries. Ministry of Livestock and Fisheries Bangladesh, p 70
- Ellis F (2003) A livelihoods approach to migration and poverty reduction. Department for International Development (DFID), Norwich
- FAO (2015) Voluntary guidelines for securing sustainable small-scale fisheries in the context of food security and poverty eradication. Food and Agriculture Organization of the United Nations Rome, p 18
- Farrington J, Carney D, Ashley C, Turton C (1999) Sustainable livelihoods in practice: early application of concepts in rural areas. In: Natural resources perspectives 42. Overseas Development Institute, London
- FRSS (2014) Fisheries statistical yearbook of Bangladesh. Fisheries Resources Survey System (FRSS), Department of Fisheries, Bangladesh, 30, p 52
- Gatewood JB, McCay BJ (1988) Job satisfaction and the culture of fishing: A comparison of Six New Jersey Fisheries. *MAST* 1(2):103–128
- Ginkel RV (2009) Braving troubled waters: sea change in a Dutch fishing community. Amsterdam University Press, Amsterdam
- Gough I, McGregor JA (eds) (2007) Wellbeing in developing countries: from theory to research. Cambridge University Press, Cambridge
- Gudeman S (2001) The anthropology of economy. Blackwell, Oxford
- Halder S (2012) The Bede Community of Bangladesh: a socio-legal study. *North Univ Law* 3:76–86
- Islam MM (2011) Living on the margin: the poverty-vulnerability nexus in the small-scale fisheries of Bangladesh. In: Jentoft S, Eide A (eds) Poverty mosaics: Realities and prospects in small-scale fisheries. Springer Science+Business Media, Dordrecht, pp 71–95
- Islam MM, Herbeck J (2013) Migration and Translocal livelihoods of coastal small-scale fishers in Bangladesh. *J Dev Stud* 49(6):832–845. doi:10.1080/00220388.2013.766719
- Islam MM, Islam N, Sunny AR, Jentoft S, Ullah MH, Sharifuzzaman SM (2016) Fishers' perceptions of the performance of hilsa shad (*Tenualosa ilisha*) sanctuaries in Bangladesh. *Ocean Coast Manag* 130:309–316
- Jentoft S (2007) In the power of power: the understated aspect of fisheries management. *Hum Orga* 66(4):426–436
- Jentoft S, Eide A, Bavinck M, Chuenpagdee R, Raakjær J (2011) A better future: prospects for small-scale fishing people. In: Poverty mosaics: Realities and prospects in small-scale fisheries. Springer, Dordrecht, pp 451–469
- Karmakar P, Khan MR (2014) Gypsies saying bye to rivers. <http://www.TheDailyStar.Net/Gypsies-Saying-bye-to-Rivers-26549>. Accessed 8 July 2015
- Khan JA (2006) Bede. *Banglapedia, the encyclopedia of Bangladesh*. Retrieved from <http://en.Banglapedia.Org/index.Php?Title=Bede&oldid=18063>. Accessed 8 July 2015
- Khan KH (2009) Bangladesh's river gypsies forced on to dry land. *Mail & Guardian*, 26 Sep 2009.
- Maksud AKM, Rasul G (2006) The Nomadic Bede Community and their mobile school program. The paper presented in the conference on “What Works for the Poorest: Knowledge, Policies and Practices”, jointly organized by BRAC, Chronic Poverty Research Centre Partnership and Brooks World Poverty Institute, University of Manchester. December 3–5, 2006, BRAC Centre for Development Management (BCDM), Gazipur. Bangladesh
- McGregor JA (2008) Wellbeing, poverty and conflict. *WeD Policy Briefing* 01/08
- Mohammed EY, Wahab A (2013) Direct economic incentives for sustainable fisheries management: the case of Hilsa conservation in Bangladesh. International Institute for Environment and Development, London

- Murray BC, Pendleton L, Jenkins WA, Sifleet S (2011) Green payments for blue carbon: economic incentives for protecting threatened coastal habitats, Nicholas Institute for Environmental Policy Solutions, Duke University, Durham
- Onyango PO (2011) Occupation of last resort? Small-scale fishing in Lake Victoria, Tanzania. In: Jentoft S, Eide A (eds) Poverty mosaics: Realities and prospects in small-scale fisheries. Springer Science+Business Media B.V, Dordrecht, pp 97–124
- Pollnac RB, Poggie JJ (2008) Happiness, well-being and psychological adaptation to the stresses associated with marine fishing. *Hum Eco Rev* 15(2):194–202
- Pollnac R, Pomeroy R, Harkes I (2001) Fishery policy and job satisfaction in three southeast Asian fisheries. *Ocean Coast Manag* 44:531–544
- Rahman MM, Haque MM, Akhteruzzamam M, Khan S (2002) Socioeconomic features of a traditional fishing community beside the old Brahmaputra river, Mymensingh, Bangladesh. *Asian Fish Sci* 15:371–386
- Rahman MA, Alam MA, Hasan JS, Zaher M (2012) Hilsa (*Tenualosa ilisha*) fishery management in Bangladesh, 40–46. In: Anon (ed). Hilsa: status of fishery and potential for aquaculture. Proceeding of the regional work held in Dhaka, 16–17 September 2012. The WorldFish Center Bangladesh and South Asia Office, Dhaka 238
- Sen A (2009) The idea of justice. The Belknap Press of Harvard University Press, Cambridge
- Sharma AP, Roy NC, Barman BK (2012) Hilsa: its social, cultural and religious importance, 216–223. In: Anon (ed) Hilsa: status of fishery and potential for aquaculture. Proceeding of the regional work held in Dhaka, 16–17 September 2012. The WorldFish Center Bangladesh and South Asia Office, Dhaka 238
- Trimble M, Johnson D (2013) Artisanal fishing as an undesirable way of life? The implications for governance of fishers' wellbeing aspirations in Coastal Uruguay and Southeastern Brazil. *Mar Pol* 37:37–44
- Wahab MA, Phillips MJ, Mohammed EY (2014) Payments for Hilsa fish (*Tenualosa ilisha*) conservation in Bangladesh. In: Mohammed EY (ed) Economic incentives for marine and coastal conservation: prospects, challenges and policy implications. Routledge, Oxon, pp 170–189
- Weeratunge N, Bene C, Siriwardane R, Charles A, Johnson D, Allison EH, Nayak PK, Badjeck MC (2014) Small-scale fisheries through the wellbeing lens. *Fish Fish (Oxf)* 15(2):255–279
- White SC (2010) Analysing wellbeing: a framework for development practice. *Dev Pract* 20(2):158–172

**Mohammad Mahmudul Islam** is an assistant professor at Sylhet Agricultural University in Bangladesh. He received his PhD from the University of Bremen in Germany. His PhD research contextualized poverty and vulnerability in the livelihoods of coastal fishing communities in Bangladesh. His research interests include coastal and marine conservation policy, climate change impacts, well-being analysis of small-scale fishers. He is currently involved in research related to disaster risk reduction of small-scale fishers in Bangladesh.

**Ratana Chuenpagdee** is Professor at Department of Geography, Memorial University of Newfoundland, St. John's, Canada. She held the position of Canada Research Chair in Natural Resource Sustainability and Community Development at Memorial University from 2006-2016. Her research emphasizes interdisciplinary approaches to coastal, fisheries, and ocean governance, focusing particularly on small-scale fisheries, marine protected areas, community-based management, and food security. She has worked in several countries including Cambodia, Canada, Malawi, Mexico, Spain and Thailand. Dr. Chuenpagdee is a project director of the Too Big to Ignore (TBTI) global partnership, and has co-edited the book *Interactive governance for small-scale fisheries: Global reflections* (2015), with Professor Svein Jentoft for TBTI.

# Chapter 10

## Labour, Identity and Wellbeing in Bangladesh's Dried Fish Value Chains

Ben Belton, Mostafa A.R. Hossain, and Shakuntala H. Thilsted

**Abstract** Dried fish products play an important role in the diets of fish consumers and in the livelihoods of actors in fisheries value chains throughout Africa and Asia. In Bangladesh, a large proportion of marine and freshwater fish landings are processed by drying. The scale and significance of dried fish production, trade and consumption is rarely acknowledged and poorly understood, however, in part because of a tendency for fisheries research to focus on fishers, thereby overlooking actors and processes in mid- and downstream value chain segments. Adopting social wellbeing as an analytical framework, this chapter explores the material conditions faced by labourers engaged in drying fish in Bangladesh, and the ways in which their subjective experiences and objective circumstances are mediated by and constituted through a range of social relations. Case studies are presented from three field sites, where laborers with very different social origins are employed in fish drying under a diverse mix of relations of production, resulting in widely variable but frequently negative social wellbeing outcomes for the women and men involved. The case studies reveal how institutions and identities that constitute important components of social wellbeing for fishers may also be implicated in the exploitation of subordinate groups of labour.

**Keywords** Social wellbeing • Labour • Small-scale fisheries • Dried fish • Bangladesh

---

B. Belton (✉)

Department of Agricultural, Food, and Resource Economics, Michigan State University,  
East Lansing, MI, USA

WorldFish, Bangladesh and South Asia Office, Dhaka, Bangladesh

e-mail: [beltonbe@msu.edu](mailto:beltonbe@msu.edu)

M.A.R. Hossain

Department of Fish Biology and Genetics, Bangladesh Agricultural University,  
Mymensingh, Bangladesh

e-mail: [marhossain@yahoo.com](mailto:marhossain@yahoo.com)

S.H. Thilsted

WorldFish, Bangladesh and South Asia Office, Dhaka, Bangladesh

e-mail: [s.thilsted@cgiar.org](mailto:s.thilsted@cgiar.org)

## 10.1 Introduction

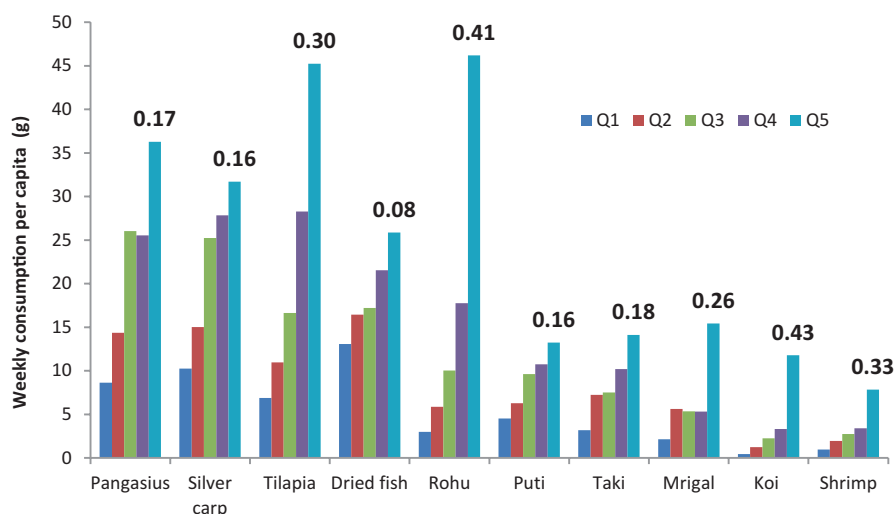
The edited volume of which this chapter is part makes the case for small-scale fisheries as repositories of multiple values. These include obvious material contributions (e.g. GDP, food, employment), as well as less easily quantifiable social-relational and cultural dimensions, arising from the meanings and social connections that small-scale fisheries provide to the actors who engage in them (p x). Social wellbeing is presented as a framework for investigating and conveying these qualitative values, in order to support a “positive re-evaluation” of small-scale fisheries (p x). Attention is directed toward “community [which] is affirmed by notions of fairness, share systems, kinship connections, locally adapted legal systems, shared attachment to place and profession, and subjectivities which draw these elements together” (p x). This approach places small-scale fishers, and the depth of attachment that many feel towards their profession, front and centre when, “valuing the contributions of productive activity in affirming social relationships and identity” (p x).

This chapter also adopts social wellbeing as an “integrative” theoretical lens (Camfield et al. 2009) through which to analyze the material realities faced by labourers engaged in drying fish in small-scale fisheries in Bangladesh, and the ways in which their subjective experiences and objective circumstances are mediated by and constituted through a variety of social relations. A primary focus on workers engaged in the processing of dried fish, rather than on fishers themselves, generates empirical findings which problematize some of the assumptions outlined above. Although the introduction to this volume acknowledges the need to be wary of romanticizing small-scale fisheries and indicates that their existence has the potential to perpetuate social or economic inequalities, analysis in the present chapter goes further. Here we argue that wellbeing as experienced by fishers may, in fact, sometimes be gained at the expense of other less visible actors. These originate both from within and outside fishing communities, and are exposed to various forms of exploitation as a result of interlinked deprivations (e.g. subordinate positions in relations of gender and ethnicity, and deficits in capabilities, economic resources and social capital). As the chapter shows, everyday discourses of fisher identity and notions of community can play an important role in legitimating and naturalizing this exploitation.

The remainder of the chapter is divided into four parts. The first provides a brief rationale for a focus on dried fish by highlighting the material importance of its consumption and production in Bangladesh. The second describes the concepts and research methods employed. The body of the chapter is comprised of three case studies focusing on the wellbeing of workers employed in fish drying at three locations under sharply contrasting sets of labour relations. The concluding section provides a comparative synthesis of results, and reflection on the application of the concept of wellbeing in small-scale fisheries research.

## 10.2 Background: Why Dried Fish?

Before elaborating upon research methods and results, it is necessary to explain why this chapter adopts the production of dried fish as its focus. Interest in dried fish initially arose from analysis of food consumption data derived from household surveys. The authors' analysis of a nationally representative survey of rural households conducted by the International Food Policy Research Institute (IFPRI) revealed that, after adjusting for wet weight, dried fish accounted for the fourth largest share of fish consumed in Bangladesh (Fig. 10.1).<sup>1</sup> In addition, at 0.08, the weighted Gini coefficient of consumption of dried fish was lower than that of any other type of fish, indicating a higher degree of accessibility to consumers in all



**Fig. 10.1** Average weekly consumption per capita (g) and weighted Gini coefficient of consumption of the 10 most consumed fish species in rural Bangladesh (Source: Derived from the of Bangladesh Integrated Household Survey 2011–2012 dataset) (Notes: Q1 = expenditure quintile 1, etc.; Gini coefficient of consumption values indicated in bold text above each bar; Values reported for dried fish are wet weight equivalents, calculated using a conversion factor of 3.5)

<sup>1</sup>Data for 56 types of fish were analyzed. Only the 10 most important in terms of consumption are presented. The dataset can be accessed at: <http://www.ifpri.org/dataset/bangladesh-integrated-household-survey-bihs-2011-2012>

income groups than any other fish product.<sup>2</sup> Belton et al. (Belton et al. 2014) also reported that dried fish were eaten more frequently than any other type of fish in some regions of Bangladesh, and that the contribution of dried products to total fish consumption was disproportionately important for low-income consumers.

These characteristics mean that dried fish may contribute significantly toward food and nutrition security – achievement of which is fundamental to material well-being – in a country that continues to experience severe levels of malnutrition and associated health problems (Toufique and Belton 2014). Despite its evident significance, dried fish has received little attention in the fisheries literature and associated policy debates in Bangladesh, or elsewhere. A literature review conducted early on during the research process revealed a dearth of published information on dried fish production, with most work addressing the subject focusing on exclusively technical matters such as preservation techniques and food safety.<sup>3</sup> These realizations led to the initiation of a study, intended to provide a broad overview of the status of dried fish production, trade and consumption in Bangladesh.

The study was preceded by a telephone survey of sub-district level employees of the Department of Fisheries, to identify the major fish drying locations (this was later supplemented with additional information obtained during field visits). Commercial fish drying sites were identified in 56 sub-districts (*upazila*) in 22 districts (Fig. 10.2).<sup>4</sup> These run almost the entire length of the coastline, which is situated at the apex of the Bay of Bengal: from Cox's Bazar (bordering Myanmar in the southeast) to the Sundarbans mangrove forest (abutting the Indian state of West Bengal to the west); and inland: throughout the Haor Basin (a large expanse of seasonally flooded wetlands in the Northeast); along the floodplains of the Meghna River; around Chalan Beel (a large seasonal wetland in the northwest); and beside Kaptai lake (Bangladesh's largest reservoir, located in the Chittagong Hill Tracts). The number and spread of drying sites is indicative of the geographical extent of drying activities and the significance of their contributions to rural livelihoods in these areas.

---

<sup>2</sup>Further analysis of the dataset indicated that consumption of dried fish products was unevenly geographically distributed. Consumption levels of more than 1000 g (dry weight)/capita/annum were found in Sylhet and Chittagong Divisions to the east, while intakes in the northern Divisions of Dhaka and Rangpur averaged around 800 g/capita/annum. Much lower levels of consumption were found to the west and south in Rajshahi, Barisal, and Khulna Divisions, the latter with a consumption of just 11 g/capita/annum. These differences reflect strong local cultural preferences, the historical origins of which are unclear.

<sup>3</sup>The book *Slaves for a season: Bonded child labour in the dried fish industry* (Blanchet et al. 2006) is a notable exception.

<sup>4</sup>This list is probably not exhaustive, so some commercial coastal and inland fish drying may occur in locations not reported here. Household based drying of small quantities of fish for subsistence is also thought to occur widely, particularly in inland areas, but this was not investigated.

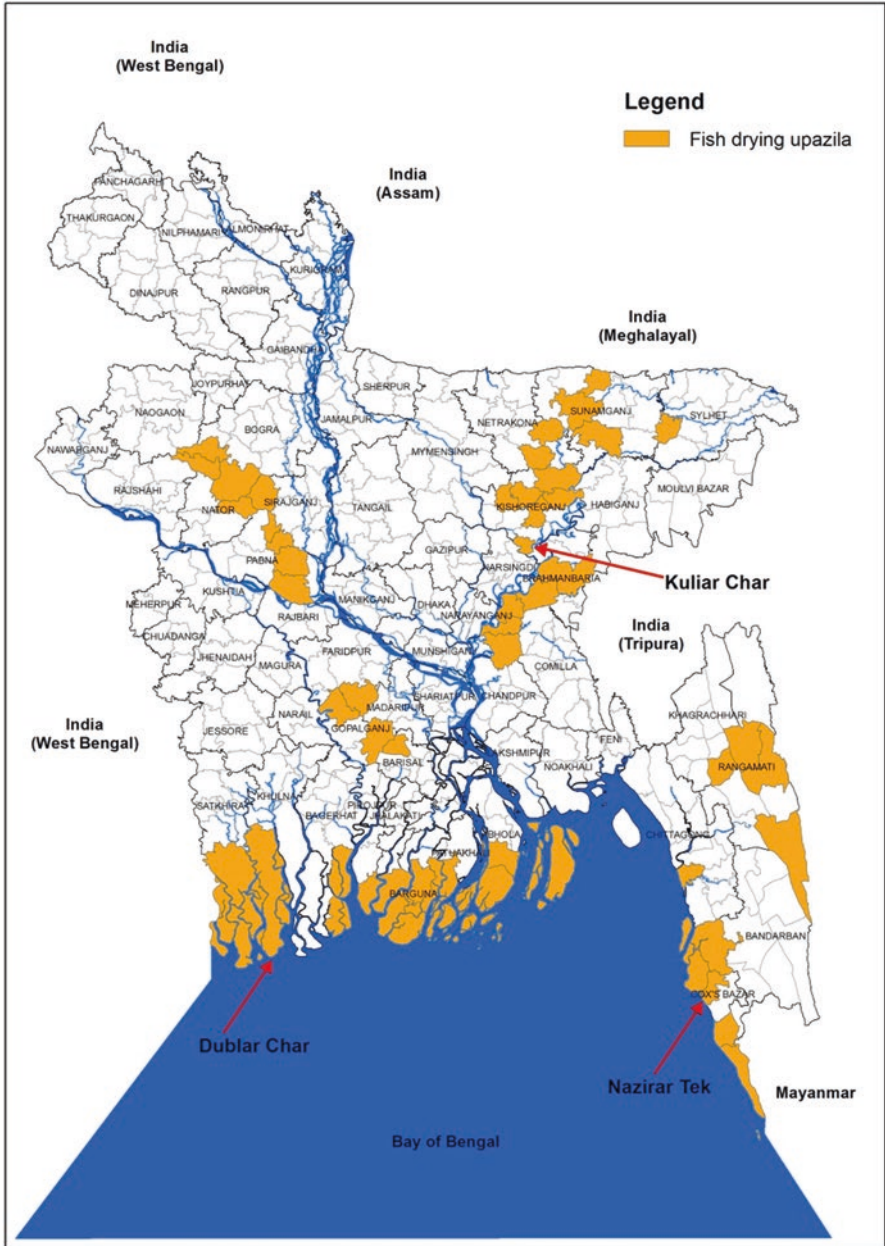


Fig. 10.2 Location of fish drying sites in Bangladesh (Source: Authors' own survey)

### 10.3 Methodology

A value chain study was initiated with the intent of generating a comprehensive overview of dried fish production and consumption in Bangladesh. In keeping with standard analytical approaches to value chains (e.g. Reardon et al. 2012), the study sought to establish: (1) the structure of the sector, spatially, in terms of the size and location of drying sites and markets, and functionally, in terms of the roles and numbers of actors operating at different nodes; (2) the conduct (behavior) of these actors in terms of their production and provision of goods and services and the nature of their relationships with other actors in the chain; (3) the performance of the value chain as a whole in terms of inclusiveness, efficiency and product quality. The decision was made to focus mainly on the midstream (fish drying) and downstream (marketing) segments of the value chain as it was felt that exploring this range of issues fully with upstream actors (particularly fishers) was not feasible within the time available.<sup>5</sup>

During preliminary research it became apparent that fish drying work was highly gendered, and performed under varied conditions, many of which appeared quite exploitative. As a result, a more explicitly wellbeing focused approach was pursued during subsequent rounds of fieldwork, in an attempt to produce deeper understandings of the livelihoods of labourers involved in fish drying, including relational dimensions of power and identity, and their subjective and material consequences. This concept of wellbeing aligns with the “social wellbeing” approach adopted in the introduction to this volume (see also Weeratunge et al. 2013; White 2010). Value chain actors’ wellbeing was assessed qualitatively through interpretive analysis of their responses to questions pertaining to a wide range of wellbeing indicators.

Between February 2012 and February 2013, visits were made to a total of ten wholesale markets, 13 retail markets and 17 fish drying sites, located in 13 districts throughout the country. During this period, 255 partially structured individual and group interviews were conducted with actors involved in dried fish value chains, or pursuing livelihoods in locations where fish drying took place (Table 10.1). Respondents were sampled purposively in an attempt to ensure coverage the broadest possible range of actors (both in terms of roles in the value chain and their social characteristics, including gender). Despite these efforts, unless otherwise indicated in Table 10.1, all those interviewed were men. The highly uneven gender distribution of actors indicates that fish drying work is by far the largest ‘niche’ in which women are able to engage directly as economic actors in capture fisheries value chains in Bangladesh. Although inland and marine fisheries in Bangladesh that sup-

---

<sup>5</sup>Following Reardon et al. (2012), the dried fish value chain was divided into three segments for analytical purposes. In the context discussed here, ‘upstream’ refers to all supply chains providing raw materials (most importantly fresh fish) and other inputs and services that support activities in the ‘midstream’ segment. ‘Midstream’ includes all activities related to the transformation of fresh fish into processed product, and its distribution as far as primary wholesale markets. ‘Downstream’ includes all activities that facilitate trade in and marketing of finished product, from primary wholesale to consumer.



**Table 10.1** Summary of interviews conducted with actors in the dried fish value chain

Upstream		Midstream		Downstream		Other associated actors	
Fresh fish trader	8	Dried fish producer	59	Dried fish trader	50	Pharmacy worker	3
Fisher	6	Fish drying labourer (female)	22	Dried fish retailer (male)	27	Government official	2
Fishing boat owner	3	Fish drying labourer (male)	18	Fish meal trader	4	Grocery shop worker	2
Boat rental services (transport)	1	Shidol producer <sup>a</sup>	7	Market labourer	4	Barber	1
Investor in shidol production <sup>a</sup>	1	Labour head	5	Dried fish retailer (female)	2	Delivery truck toll collector	1
Trader of earthen jars <sup>a</sup>	1	Dried shark producer	3	Dried fish trader's labourer	1	Herbal doctor	1
		Shrimp trader	3	Shark fin trader	1	Local government official	1
		Owner of warehouse for shidol storage <sup>a</sup>	3			Mobile phone service worker	1
		Shidol processing labour <sup>a</sup>	2			NGO worker	1
		Fish drying labourer (child)	2			Priest	1
		Fish processing byproduct trader	2			Tea stall owner	1
		Fishmeal producer	2				
		Accountant	1				
		Fermented shrimp producer	1				
		Financial service provider	1				
<b>Total number of interviews</b>	<b>20</b>		<b>131</b>		<b>89</b>		<b>15</b>

Note: <sup>a</sup>*Shidol* (also called *chapa*) is a fermented fish product, widely eaten throughout North Bengal. It is usually produced using freshwater *puti* (*Puntius spp.*), or marine *phaisa* (*Setipinna spp.*) which is first dried, then soaked in water, drained and matured for several months in earthen jars

ply raw material for drying are overwhelmingly small-scale in nature, falling along the spectrum of what Johnson (2006) refers to as ‘domestic commodity production’, for reasons discussed above, actors involved principally in fishing activities accounted for only a small fraction of interviewees.<sup>6</sup>

## 10.4 Labour, Identity and Wellbeing: Three Case Studies

This section presents case studies detailing labour relations and fish worker wellbeing at three major sites of production – selected for their contrasting characteristics in terms of organization of production and related wellbeing outcomes – which, together, contribute a substantial share of domestic dried fish supply.<sup>7</sup> These are: Nazirartek, Bangladesh’s second largest marine fish drying site, close to the city of Cox’s Bazar; Dublar Char, an island deep inside in the Sundarbans mangrove forest, which is the location of the country’s largest concentration of marine drying operations, and; Daspara, one of the largest freshwater fish drying sites in northern Bangladesh (Fig. 10.2).

### 10.4.1 *Nazirartek*

#### 10.4.1.1 History and Organization of Fish Drying at Nazirartek

Cox’s Bazar is the principle city of Cox’s Bazar district. Fish drying takes place on an accreting strip of coastal land called Nazirartek, located immediately to the west of Cox’s Bazar airport, at the mouth of the Bhakkali River. Most fish drying in Nazirartek is controlled by former inhabitants of Kutubdia, an island 45 km to the north. Residents of coastal fishing communities in Kutubdia were granted formal permission to settle an area of emerging land close to the airport in 1987, after being displaced from Kutubdia by severe coastal erosion. These Muslim migrants occupied land and established fish drying operations on the seaward side of the new settlement. A second larger wave of in-migration from Kutubdia occurred 4 years later, in 1991, in the aftermath of a devastating cyclone which left part of the island submerged.

Between 1987 and 2013, the beach shifted 2 km seaward, creating new land on which additional dwellings and drying operations were constructed, and the size of the settlement and fish drying area grew to 140 ha, attracting new migrants from

---

<sup>6</sup>Some of the dried fish producers interviewed operated fishing boats, but utilized most of their catch for drying. They are recorded as dried fish producers in Table 10.1.

<sup>7</sup>Bangladesh is a net importer of dried fish, sourcing significant quantities of dried marine product from neighbouring India and Myanmar, particularly outside the periods of domestic peak production.

Kutubdia and elsewhere in the country. The number of permanently settled households has grown to around 4500, most of which possess at least one member involved in activities related to fishing or fish drying, for a total permanent population well in excess of 20,000. The expansion of drying operations in Nazirartek coincided with the displacement of 250,000 Rohingya refugees from Myanmar to Cox's Bazar district in 1992 (Ahmed 2010).<sup>8</sup> During the fish drying season from mid-August to mid-April, the permanent population is swelled by more than 5000 seasonal workers and their family members. Many are Rohingya, while others originate from other parts of Cox's Bazar and more distant regions of Bangladesh. These workers and their families are housed in extremely basic accommodation, constructed close to the drying area, with most families sharing a single room hut made of bamboo and reeds, rented at a cost of around USD 5/month.<sup>9</sup>

Enclosures where fish are dried are called *khola*. Around 80% of *khola* at Nazirartek belong to families originating from Kutubdia. The peak fishing season runs during the six post-monsoon months of October to March. Fish landings are very closely related to the lunar cycle, peaking several days after the full and new moon when boats (which are motorized, and fish principally with set bag nets), return from several days at sea. More limited volumes of fish are landed in between these times. Boats with owners originating from locations in Cox's Bazar and neighbouring Chittagong district land fish for drying daily on the nearby beach. Landings are comprised mainly of small species, juveniles and damaged or partially spoiled fish, all with a low market value. Higher market value fish are generally sold direct to traders in fresh form at wholesale markets in other locations. The four species dried in the largest volumes are *chhuri*, (hairtail), *loitya*, (Bombay duck), *poa* (panna croaker) and *phaisa* (Gangetic anchovy). Heavily spoiled fish and aquatic organisms such as small crabs are dried separately for use in the production of fish and animal feeds. Drying usually takes around 3 days for each batch of fish.

With the exception of product sold into markets in the immediate area, all dried fish produced at Nazirartek is sold through Bangladesh's largest dried fish wholesale market, Asadganj, located in the large port city of Chittagong, 130 km to the north. All dried fish traded at Asadganj is sold through large traders (*arotdar*), who provide advances of output-tied working capital at the beginning of the fishing/drying season. Boat owners who need funds to furnish advanced wages in order to secure the services of crews for their fishing boats are the main recipients of this form of credit (*dadon*), but it is also provided to some *khola* operators without boats, as well as to smaller itinerant traders who act as collectors. This practice guarantees large volumes of trade for *arotdars*, who receive a commission for brokering sales between dried fish producers and wholesalers at Asadganj.

---

<sup>8</sup>The Rohingya are an ethnic group of South Asian origin who practise Islam and inhabit Rakhine State, in the west of Buddhist majority Myanmar. They have been rendered stateless and subjected to state-led persecution and communal violence since the mid-twentieth century, resulting in several mass migrations to Muslim majority Bangladesh.

<sup>9</sup>USD 1 was worth approximately BDT 80 during the period when fieldwork took place.

#### 10.4.1.2 Labour, Identity and Wellbeing

Demand for fish drying labour corresponds with the lunar cycle, with two high and two low weeks each month. A flexible labour force is thus required, and most workers are hired on a daily basis. These casual labourers, who often lack alternative employment options, are usually able to find work for around 15 days per month, but sometimes as few as 10. The working day runs from dawn to dusk (roughly 6.00 am to 6.00 pm). There is a strong gender division of labour. Men perform tasks that include washing fresh fish, applying pesticides to prevent fly infestation, hanging fish up to dry on scaffolding, weighing and bagging dried product and loading it onto trucks. Women are responsible primarily for sorting fresh fish by species, tying pairs of churri and loitya together so that they can be hung up, and turning and further sorting of mixed fish species during the drying process. At least 50% of the casual labourers employed are women.

Women and men casual labourers earn USD 1.85 and USD 2.50 respectively, for a full day's work. This figure is reduced when the working day is shorter due to insufficient supplies of fish. Wages are distributed in cash at the end of each day. Children of both genders are employed in significant numbers, with children under 12 years accounting for an estimated 10% of the total casual workforce. Starting from the age of 6 or 7 years, children earn from USD 0.40–0.60/day and, by around the age of 15 years, up to an adult equivalent wage. No food is provided to casual workers by their employers. A typical khola also employs several male supervisors (*nila*) on a seasonal basis. Nila earn a lump sum of USD 400–600 for a 9 month season, part of which is paid as a cash advance, and are provided accommodation in the khola and a daily ration of rice, fish and vegetables.

At least half the women and child casual workers involved in fish drying at Nazirartek are Rohingya. Most Rohingya in Bangladesh are not formally registered as refugees and are thus undocumented and ineligible to receive formal humanitarian assistance or basic public services (Ahmed 2010). Fish drying workers of Bengali ethnic origin are mainly landless seasonal migrants from elsewhere in Cox's Bazar district and more distant parts of the country where there are few employment opportunities, as well as the poorest of the former inhabitants of Kutubdia to have settled permanently at Nazirartek. Although members of all three groups are evidently extremely poor, they appear to experience slightly different levels of deprivation, with those originating from Kutubdia at the least severe end of the scale, and those from Myanmar at the worst. Rohingya and Bengali (Bangladeshi) workers receive the same daily wage, but it is widely reported by Bengali workers and khola operators that the availability of Rohingya labour has depressed average wage rates considerably. This perception, which was also reported by Blanchet et al. (2006), is a source of resentment among Bengali workers.

In part because of this economic competition, relations between the two groups are often strained. Bengali interviewees originating from Kutubdia referred to themselves as "*sthanio lok*" (local people), in contrast to the "*bideshi*" (foreign) Rohingya, who they widely characterized as troublemakers or thieves and criticized for "contaminating local culture" by practising polygamy or cohabiting. It

was noted that Bengalis rarely ate food cooked by Rohingya or allowed them to visit their homes, and that arranged marriages never occurred between the two groups. As a result, most Rohingya felt their position to be precarious, a sentiment captured in the comment that “[our] status is always lower than that of Bengalis. We bow our heads [in front of them]”. Rohingya also confront a variety of more systemic exclusions from wider society, in addition to those engendered by everyday discursive practices. As undocumented refugees, they are vulnerable to harassment by the authorities when moving outside Nazirartek, and reported arbitrary arrests by the police, often followed by extortion or violence, to be commonplace. They are also disqualified from receiving relief occasionally disbursed by NGOs and the government and unable to access formal microfinance, and Rohingya children are prohibited from attending the few NGO- and community-run schools in the vicinity of Nazirartek.

The proportion of women without husbands as a result of widowhood, divorce or abandonment, is very high among all casual female labourers employed in fish drying (estimated at more than 1/3), but this tendency is seemingly particularly acute in the case the Rohingya. Blanchet et al. (2006) also reported that 58% of child workers employed at Nazirartek had lost one or both parents. Whilst all of these groups are highly vulnerable, Rohingya women and girls without the protection of a husband or male family member are particularly at risk of sexual violence and exploitation, especially from male khola managers with the power to grant or withhold work. This situation prevails in part because Rohingya exist outside of local moral society (*samaj*), and have little recourse to or faith in the justice dispensed by informal community hearings (*salish*), which are controlled by khola operators (c.f. Blanchet et al. 2006). This extreme vulnerability appears to be reflected in the high prevalence of polygamous marriages among Rohingya in Nazirartek. Such marriages, which informants reported did not occur among Rohingya in Myanmar, may be interpreted as a “Faustian bargain” on the part of many of the women involved, entered into in the desperate pursuit of a degree of security (Wood 2003).

In addition to relational determinants of ill-being specific to Rohingya workers, all fish drying workers interviewed confronted numerous common material impediments to wellbeing. Sanitation around the areas of permanent and rented worker accommodation is very poor, with communal open pit latrines used by very large numbers of people. Working conditions are harsh (long hours exposed to the elements and frequent contact with pesticides), and the diet is poor, comprised mainly of rice and low quality fish. Meal skipping was reported as a very common coping strategy on days when no work is available. A range of common health complaints, including diarrhea, backache, headache, sunburn and skin conditions were reported. Access to education is limited, even for the children of Bengali workers eligible to attend school, because, apart from the costs associated with doing so, children are often required to care for their younger siblings whilst parents work, or to contribute to household income by working themselves or by scavenging fish in and around the khola.

### 10.4.1.3 Fisher Wellbeing

It is instructive to compare the conditions experienced by fish drying workers with those of members of the fisher community originating from Kutubdia. Crews of fishing vessels are exclusively male. They perform a variety of skilled and semi-skilled work essential for successful fishing operations, resulting in competition among boat owners to recruit them prior to the fishing season. The salary for a 9 month season ranges from USD 450 to 1500, depending on experience, with 50% paid as an advance to secure the worker's commitment. Members of fishing crews received four meals a day while at sea, in recognition of the degree of physical exertion involved in their work. In order to cover these and numerous other costs, boat owners borrow heavily before the start of each season, from traders of both dried and fresh fish, in the form of output-tied credit (*dadon*), committing them to sell exclusively through these creditors.

Fishing is dangerous and physically demanding, with death and injury due to bad weather and piracy relatively frequent occurrences. Unlike fish drying labourers, fishing boat crews and captains both have professional associations which represent their interests in the case of disagreements with employers. Most crew members originate from the same communities and clans as boat owners and thus share common place and kin-based identities. Although professional fishers openly self-identify as such, their status is ambiguous. In discussing their work, fishers originating from Kutubdia made reference to the hard-earned skills and long experience needed to fish successfully which, they argued, would be impossible for an "outsider" to replicate, suggesting a degree of pride in their work. However, respondents also recognized that, as hereditary fishers, they were involved in a 'dishonourable' profession (Barman 2008),<sup>10</sup> and wished for their children to pursue different occupations. Acknowledgement of this low social status and physical insecurity was reflected by a boat owner who noted that, "If I have a girl and I want to her to get married, I will always look for a man with a permanent job and will try to avoid a boat captain". As a community, the former inhabitants of Kutubdia have attempted to ensure this social mobility can occur, by making investments in education, including building schools and sending their children to university to enable them to obtain jobs in state institutions.

Fishers from Kutubdia possessed sufficient social and political capital to enable them to secure official permission to colonize the areas around Nazirartek after the natural disasters that affected Kutubdia during the 1980s and early 1990s, as well as access to capital from traders that enabled them to rapidly rebuild their fishing livelihoods in the face of massive losses of productive assets. As a result, they proved

---

<sup>10</sup>In Bengal, fishing was traditionally a profession dominated by specific low-caste Hindu groups. However, fishing and fish trading were also the hereditary professions of several groups of Muslims, for whom caste-like characteristics in terms of the social segregation to which they were subject were applied (Barman 2008). More recently, the entry of Muslims from outside these hereditary groups into fishing businesses has increased. Recent entrants are not subject to the same degree of stigma as those who inherited their profession. However, as the text above indicates, this persists to some degree for those whose forebears were professional fishers by birth.

far more resilient to displacement than the Rohingya who work for them. The Rohingyas' statelessness deprives them of one of the most basic conditions of political identity, subjecting them to extreme marginalization, and rendering them an abundant source of cheap and easily disciplined labour, exploitation of which contributes to the material wellbeing of the fisher community.

Although members of male fishing crews perform a role which entails a high degree of physical risk and some social censure, it also affords them a degree of satisfaction and belonging, as well as financial conditions which, while by no means comfortable, are considerably better than those enjoyed by women fish drying labourers. Wellbeing outcomes for the former group are therefore generally mixed. For the latter group, fish drying work appears to represent little more than a survival mechanism of last resort, entered into from a position of extreme economic and social disempowerment, and symptomatic of extremely low overall levels of social wellbeing.

## **10.4.2 Dublar Char**

### **10.4.2.1 Fish Drying on Dublar Char**

Dublar Char is a remote island in Bagerhat district, at the southernmost tip of the Sundarbans Reserve Forest; a protected area which contains the largest intact mangrove ecosystem in the world. The island, which lies a 10 hour boat journey away from the nearest urban centre, has no permanent residents, but is the location of the greatest concentration of fish drying operations in Bangladesh. Fishers from Chittagong and Cox's Bazar districts have made the annual 250 km boat journey across the Bay of Bengal to establish seasonal fishing camps on Dublar Char for more than 200 years. The first fishers to frequent the island were Hindus belonging to a low status professional fishing caste. Muslims began to enter the Dublar Char fishery in increasing numbers from the 1970s, but Hindus appear to remain in the majority.

Fishing camps run for around 5 months (October–February) in four locations; Alor Kol to the southwest of the island, and Majer Killa, Meher Ali and Office Killa in the south and southeast.<sup>11</sup> There are around 700 khola at Alor Kol, where fishers are comprised of a mix of low-caste Hindus and Muslims from the nearby districts of Khulna, Shatkhira, Bagherhat, Barguna and Pirojpur, many of whom are relative latecomers to the fishery. Much smaller numbers of khola are found at each of the other three sites in the south and east of the island. These sites are occupied by fishers originating from southeast Bangladesh and operate on a large scale, each producing around six times more fish products on average, than those at Alor Kol (Huda and Haque 2001). The total population of Dublar Char during fish drying season

---

<sup>11</sup> Fish drying also occurs at four sites on a nearby island sometimes also considered part of Dublar Char, but these are of lesser importance, and were not visited in this study.

was reported to be 24,840 in 2000 (Huda and Haque 2001), and 28,000 in 2004 (Blanchet et al. 2006), but interviewees in 2013 provided a lower estimate of around 20,000.<sup>12</sup>

All khola operators on Dublar Char own fishing boats, and only dry fish that they themselves land. Boat owners (*bohaddar*) from southeast Bangladesh usually operate several vessels, each around 45 ft in length. Those from southwest Bangladesh tend to operate fewer, smaller vessels, closer to shore. Most boats are motorized, and fish using set bag nets. Some high value fresh fish and shrimp (together comprising about 15% of landings) is sold to traders operating depots on the island. Around 70% of the total catch is dried for sale as human food, and the remaining 15% is ‘trash fish’, which is dried for use as an ingredient in fish and animal feeds.

Dublar Char has no women inhabitants or workers. Interviewees explained this with reference to the belief that women’s presence on the island (which is considered sacred by Hindus) outside of a large annual pilgrimage (*Rash Mela*) would “pollute” it. The fishing camps on Dublar Char are monitored by the Forest Department, which levies taxes on fishers for the use of wood, operation of fishing boats and export of dried fish out of the forest reserve. The coast guard and police also have an occasional presence, but neither institution has the capacity to protect fishers against pirate gangs, which frequently kidnap fishers for ransom.

The presence of fishers on the island in the face of this insecurity is facilitated by the presence of a powerful shrimp trading business. The business is operated by a former army Major; a military sub-sector commander in the Sundarbans during Bangladesh’s war of independence against Pakistan in 1971, who continues to maintain an independent armed presence in the region. The Major’s business has commandeered three public cyclone shelters as operational bases on the island. Although controlling this territory in a semi-autonomous manner (placing them in an ambiguous position vis-à-vis the state), the Major and his business associates have cooperated closely with the police’s paramilitary wing in coordinating raids against pirate gangs, and also act as an informal court, arbitrating disputes among fishers on the island.

In return for the patronage they receive, *bohaddar* at the three drying sites in the south and east of the island, located close to the shrimp trader’s bases, are compelled to sell all of the fresh shrimp they land to the Major’s business, at very heavily discounted rates.<sup>13</sup> Anyone caught attempting to sell shrimp on the open market is punished, and expelled from the island. *Bohaddar* working out of these three sites are also bound to provide all of their ‘trash fish’ to the shrimp trading business, free of charge. The protection from piracy received by *bohaddar* at Alor Kol is more limited, and they are free to sell their ‘trash fish’ as they wish, earning several hundred dollars per season from doing so. However, many of the Alor Kol based *bohaddar*

---

<sup>12</sup>This difference may be due to declining numbers of fish drying operations on the island since 2010, as a result of piracy.

<sup>13</sup>The protection afforded from piracy is not total. In 2010, a *bohaddar* was captured in a mass raid on his fishing camp at Meher Ali, and held at ransom for USD 70,000. The extremity of this event caused a reduction in fishing activity in subsequent years.



dar also take cash advances (dadon) from the shrimp business, obligating them to sell all the fresh shrimp landed to its agents at heavily discounted prices.

The shrimp trading business provides a range of additional services to fishers which would be otherwise difficult to obtain on the remote island. These include selling provisions and fuel, supplying engine parts, repairs, emergency credit and providing mobile phone access through signal boosting aerials. The shrimp business also runs two cargo boats with a monopoly on the transport of fish dried from Alor Kol to the port of Mongla (use of which guarantees that the cargo will not be stolen on route by pirates), and manages subsequent transport of this product by road to wholesale markets in Chittagong (Asadganj), and Syedpur in the northwest of the country.

#### 10.4.2.2 Labour and Wellbeing on Dublar Char

The fishing and drying operations run by fishers at Alor Kol are smaller on average than at the three other drying sites on Dublar Char. Some boat owners based at Alor Kol work on their own vessels, and fishing crews participate in drying activities on-shore. A small number of additional staff are also employed exclusively for drying fish in each khola. The majority of these workers originate from the same areas of southwest Bangladesh as the boat owners, though not always from the same communities, and are not always hereditary fishers by profession. Labourers who only dry fish earn wages of USD 250–375 for a 5 month season; around 50% less than boat crew members. All these workers are usually paid an advance at the start of the season equal to 2 months' wages, and are free to leave the island if the value of the advance has been worked off. Some pay visits to their homes in neighbouring districts on one or more occasions during the drying season.

Different relations of production prevail at the three other drying sites, where fishers originate mainly from the more distant southeastern districts of Chittagong and Cox's Bazar. Bohaddar at these locations never fish themselves, managing operations from shore and assigning leadership of fishing crews to boat captains (*mahji*). Bohaddar provide cash advances directly to mahji and their crews (most of whom originate from the same communities as their employers), prior to the start of the fishing season. There is a strong degree of commitment from the bohaddar to his fishing crews, to the extent that he will always pay the ransom demanded for a crew member kidnapped by pirates, even if it means selling his business to do so. Fishing operations at these drying sites are much larger than those found on Alor Kol, boats are at sea for longer periods of time, and fishing crews do not participate in fish drying. Fish drying work at these sites is performed by two distinct groups of labour (*kuliya* and *dhulabanga*), recruited and employed under different conditions.

Kuliya are recruited mainly from within the same fishing communities as their employers, by fishing camp managers (*kuliya mahji*). They are mainly of young men and adolescents, with a minority aged as young as 10 years old. Bohaddar specify the number of kuliya they require and provide cash advances to kuliya mahji with which to recruit them, paying a fixed amount per worker. Kuliya mahji make

their income for the season from the difference between the amount received for hiring workers and the cost of paying and feeding them. The wages earned by kuliya are within the same range as those earned by workers drying fish at Alor Kol (USD 250–325 per season plus meals). Kuliya receive part of their wages as an advance, which secures a commitment to work for the entire season. The origin of most kuliya, kuliya mahji and bohaddar within the same communities ensures a certain degree of reciprocal responsibility; providing some insurance against the former absconding with advance wages, while the latter may be held somewhat accountable for the welfare of the workforce.

In contrast, dhulabanga originate from outside fishing communities, mainly from the landless, unemployed and often homeless ‘floating population’ (Blanchet et al. 2006) who migrate from all over the country to Chittagong city in search of work. Although dhulabanga are characterized predominantly as children in some accounts (e.g. Jensen 2013), the general trend observed during the fieldwork was for children to be less frequently represented among the dhulabanga than among kuliya. It is possible that this tendency reflects the impact of successive media exposés and ensuing raids on fishing camps by the authorities.

Also in contrast to previous reports, including Blanchet et al. (2006), dhulabanga appeared to be fewer in number than kuliya, with their presence only immediately apparent at Meher Ali, where they accounted for roughly 70% of the labour engaged for fish drying, and about one third of the entire workforce including fishing crews. The total population of dhulabanga in the four khola operating on Meher Ali was estimated at around 300. This is far fewer than 10,000 estimated to have worked on the whole of Dublar Char during the 2003–2004 drying season by Blanchet et al. (2006). This apparent decline in numbers may reflect the effects of both pressure from the authorities and the declining number of drying operations on the south and east of the island since 2010 due to rampant piracy.

Responsibility for recruiting dhulabanga is out-sourced by bohaddar to labour heads (*dhulabanga mahji*), prior to the beginning of each season. Dhulabanga mahji recruit some labour themselves, but are usually unable to obtain sufficient numbers, and are thus reliant on brokers (*dalal*) from Chittagong to bring them workers. Dalal recruit with promises of well remunerated work under good conditions, and transport workers to fishing villages in Chittagong and Cox’s Bazar, where they are handed over to dhulabanga mahji for a fee of USD 6–8 each; a transaction known as *puya bikri* – literally meaning, “selling a boy” (Blanchet et al. 2006).

During the period prior to their journey by boat to Dublar Char, dhulabanga are accommodated by dhulabanga mahji under good conditions, and are well fed and provided with new clothing and footwear. This treatment changes dramatically after they board the boat to Dublar Char (Blanchet et al. 2006). Once on the island, they are put to work at cutting wood to construct drying areas and housing, unloading fish and nets from boats, sorting fresh fish prior to drying, collecting fire wood, preparing nets and fetching drinking water. This work begins early in the morning, and can continue long into the night when large quantities of fish are landed.

Bohaddar do not pay dhulabanga mahji for their services in cash. Instead, they provide payment in kind, at the rate of two baskets of fresh fish out of every 30

unloaded from the fishing boats by their workers (a 7% share of the total catch). In addition to their work obligations to bohaddar, dhulabanga are required to dry this fish for their mahji, who sell it to visiting traders. The seasonal profit earned by a dhulabanga mahji is the gross value of sales of the fish dried by his team, minus the costs of purchasing these workers from the dalal and covering their living costs and wages during the fishing season. This calculation provides an incentive reduce costs as much as possible, by 'squeezing' the dhulabanga, particularly in poor fishing years.

The food provided to the dhulabanga is poor, comprised primarily of two meals a day of rice and fish, with few vegetables. Stomach complaints, health problems and work injuries are commonplace. Snacks and medicines are available for dhulabanga to purchase from shops on the island, through a line of credit to their mahji. The costs, which are inflated, are deducted from their salaries at the end of the season, along with outlay on the clothes provided prior to the journey and any other items purchased during their stay on the island. Thus, although most dhulabanga are promised a wage of USD 65–125 for the entire season by their mahji (a figure much below that initially offered by the dalal who recruited them), once all costs are deducted at the season's end, many receive no cash at all. They are, in the words of Blanchet et al. (2006), 'slaves for a season'.

The extremely remote location of Dublar Char, together with the risk posed by the presence of tigers and crocodiles in the mangrove forests that surround it, make escape from the island difficult, and the possibility of encountering these animals is used by dhulabanga mahji as an instrument of fear, to reduce the temptation for dhulabanga to run away. In order to ensure acquiescence under the heavy workloads and poor conditions, dhulabanga are also heavily disciplined, both verbally and physically. As one interviewee observed, on their arrival to the island, "they are [treated] like wild animals; they are beaten until they surrender". Blanchet et al. (2006) also reported that sexual abuse is common.

All of these factors equate to what can only be described as extremely low levels of all dimensions of wellbeing among the dhulabanga. The material deficiencies are obvious: most dhulabanga are destitute even before coming to Dublar Char, a status which does not improve during their time on the island, being poorly nourished, un- or under-paid, and subjected to extremes of physical endurance and punishment. Damage to their subjective wellbeing wrought by this experience was apparent in the emotions of anger, regret, fear and frustration with which they relayed their life stories. These feelings were captured succinctly by a former garment factory worker, who stated categorically that Dublar Char was "like hell", that the biggest mistake of his life was being tricked by the dalal, who he hoped would be punished somehow, and that he wished only to return to his old life and never come back to Dublar Char.

Relational dimensions of wellbeing are particularly important in contributing to these material and subjective outcomes. As in Nazirartek, the distinction between "locals" (belonging to the fishing communities of southeast Bangladesh) and "foreigners" (placeless dhulabanga recruited from the 'floating population' of Chittagong city) was emphasized in the discourse of the former. For fishers, this

dichotomy serves the function of locating the dhulabanga outside their own moral society (samaj), thereby absolving them of the type of social obligations extended to kuliya and fishing boat crews. The consequences of this discursive practice are reinforced by out-sourcing responsibility for the management and recruitment of dhulabanga; from bohaddar, to dhulabanga mahji, to dalal.

Blanchet et al. (2006) report that dhulabanga are referred to by their mahji as *goru* (cows); a similar discursive practice which serves, symbolically, to dehumanize the dhulabanga and legitimate their exploitation. In contrast, although bound to their employers by cash advances and unable to leave the island at will (and thus, by definition, unfree labourers), kuliya are hired at market rates and perform work which is less physically demanding (mainly sorting and drying fish) and for fewer hours each day, than that of the dhulabanga. The surplus value of labour extracted from “foreign” dhulabanga, thus to some extent subsidizes that of “local” workers, originating from within fishing communities.

### 10.4.3 Daspara

#### 10.4.3.1 Fish Drying Organization and Community

Daspara is a village with a population of around 5000, located immediately adjacent to the small town of Kuliarchar in Kishoreganj district, northern Bangladesh. The town and village are accessible by surfaced road, and are served by several primary and secondary schools, a girls’ high school, several government offices and a fresh fish wholesale market. Both settlements lie on a tributary of one of Bangladesh’s three great rivers, the Meghna, and 15 km from the town of Bhoirab, home to one of the country’s largest fresh fish wholesale markets. Daspara’s inhabitants are Hindus belonging to the low status *Jhol Das* (literally, “water slave”) professional fishing sub-caste. All are members of a single *gushti* (patrilineal clan). The village’s residents own very little agricultural land or livestock, and the vast majority of families are involved in fishing or fishing-related activities to some degree.

Fish drying has taken place in Daspara for at least 100 years. The drying season runs for five and half months, from October to mid-March. The main species dried from October to December are *puti* (a small fish, which is the most prolific flood plain species in Bangladesh). Larger, higher market value species including cat-fishes, snakeheads, and Indian minor carp (*boal*, *ayr*, *gozar*, *shol*, *gonia*), account for a greater share of the catch later in the season. Drying takes place on bamboo platforms (*dangy*), elevated about three meters above the ground on stilts, which are constructed during late monsoon before deep floodwaters subside.

Puti are prepared for drying by descaling and removing the internal organs with a sharp blade. Larger fish are usually de-scaled, de-headed, cleaned, butterflied, sliced and soaked in salt water before drying. In both cases, the fishes’ internal organs are retained. Heads and entrails of some of the larger fish are sold fresh for food in the locality, while swim bladders are dried and traded. When boiled, the

intestines of puti and gonia produce oil which is used for coating earthen jars used in the production of a fermented product (*shidol*), made from dried puti.<sup>14</sup>

#### 10.4.3.2 Labour and Wellbeing in Daspara

Dangy are usually managed as a family enterprise, in which husband and wife are often both actively engaged. Dangy owners' extended family members are often given preference as labour, with additional casual workers recruited from within the village, as required. Owner's children sometimes contribute their labour when not at school, but almost all children in the village (both girls and boys) are educated to class eight or beyond, and only 1–2% of the dangy workforce are children under 12 years of age. All workers, with the exception of immediate family members, are paid for their labour. Women perform all work related to the preparation of fish for drying, with the exception of washing and salting. This is done by men, as is purchasing fresh fish for processing, guarding the dangy at night, stacking, weighing, bagging and selling dried fish, and making shidol.

Permanent male workers are paid a little over USD 60 per month plus meals. Temporary male labourers earn just over USD 3 per day in cash. Women receive most of their wages as payment in kind in the form of fish processing by-products, but may also receive a cash piece rate for certain tasks. Women workers processing fresh puti retain the fishes' intestines and, following each shift, spend around a further hour at home boiling them to render oil that can be stored and sold to shidol makers. Women who specialize in processing larger species retain the heads and internal organs, which are sold immediately to local hawkers who peddle them in neighbouring villages as a cheap food. Boal and gonia swim bladders are dried and sold back to dangy owners, to be re-sold to visiting traders for export.

Although not connected to the lunar cycle, the intensity of fish drying work at Daspara depends on both the stage of the season and volume and species of fish available in local wholesale markets, and is thus quite variable. Working hours are determined by the quantity of fish to be processed in the dangy, and can last anywhere from a few hours in the morning, to long into the night. Furthermore, the quantity of oil that can be extracted from puti declines as the season progresses and the fish near sexual maturity. These complexities make it very difficult to ascertain the exact cash equivalent value of women's in kind earnings. However, rough approximations suggest that these amount to considerably less than men's daily wages, and are of a similar order to, or in some cases perhaps even less than, the daily wages of women labourers at Nazirartek, despite the availability of a much larger reserve army of labour at the latter location.

Despite comparable earnings, the general wellbeing of women fish drying workers at Daspara and Nazirartek appears very different. This reflects, in part, differ-

---

<sup>14</sup>A marine fish, phaisa, is increasingly used in shidol production as a substitute for the freshwater puti, which is becoming scarcer and more expensive. The lower value shidol produced using phaisa is consumed almost exclusively in the impoverished Northeast of the country.

ences in the degree of social inclusion/marginalization experienced by the two groups. Rohingya women workers at Nazirartek exist precariously, outside the “local” society of the fishing community and at the hidden margins of the wider nation state. In contrast, women drying fish in Daspara are deeply embedded in their own community and its moral economy. This status is double-edged; affording a sense of belonging and security that is completely absent among the Rohingya in Nazirartek, but obliging them to perform work out of a sense of duty to employers (often relatives or neighbours) under poorly remunerated conditions, in order to maintain harmonious relations within the community.

To the extent that they are intimately tied to their employers through interlinked kinship and place-based identities, women’s work in Daspara can be seen as the self-exploitation occurring at the collective, community level, rather than at the individual or household scale, as usually conceived in agrarian political economy. However, voluntary as it may be, the burden of communal self-exploitation falls almost entirely on women, as is evident from comparison with male fish drying workers, who are invariably paid in cash and receive approximately twice the daily wage of their female counterparts.

At Nazirartek, earnings from fish drying are fundamental to the day-to-day survival of women workers and their families, with little option but to, quite literally, work or starve. In contrast, money earned by women in Daspara makes an important, though usually non-essential contribution to the household economy, and is also spent by women on discretionary purchases such as cosmetics, clothing, jewelry, or (in the case of one interviewee) snacks for grandchildren. This position of relative material wellbeing is in stark contrast to that of Rohingya women workers in Nazirartek, one of whom commented bleakly that, “Our small children never even get to buy five taka [USD 0.06] worth of snacks”.

## 10.5 Conclusions

### 10.5.1 *Explaining Labour Relations in Terms of Identity and Wellbeing*

As the case studies presented above demonstrate, small-scale fishing in Bangladesh (particularly in the marine environment) is an economic activity characterized by a high degree of risk and uncertainty (Allison and Ellis 2001; Islam 2011). These characteristics result from factors that include the temporal and spatial variability of fish stocks, an unpredictable and often treacherous environment (e.g. coastal erosion, storms, cyclones), and piracy. Fishers’ dependence on patrons for access to capital and (on Dublar Char) physical security, results in additional, though more predictable, financial pressures. Fish drying, which utilizes the vast majority of fish landed in the two marine fisheries studied, as well as a substantial proportion of landings in the inland fishery, is labour intensive. Competition for the limited pool

of specialized labour necessary for successful fishing efforts is stiff, as evidenced by the large advances paid to secure fishers' commitment to work. As such, the unskilled labour utilized for fish drying is one of the few areas in which there is scope for fishing enterprises to reduce operating costs.

Operators of fishing and drying enterprises thus attempt to minimize costs and exposure to risk by transferring them, wherever possible, to fish drying workers. Strategies for the exploitation of fish drying labour (in both a Marxian and a more normative sense) assumed different forms in each of the cases studied, reflecting adaptations to the opportunities and circumstances apparent in different geo-social settings. These arrangements encompass a variety of free and unfree labour relations, as well as gendered forms of collective self-exploitation. At Nazirartek, settlement of newly formed land by fishing households displaced by natural disasters and the expansion of marine fish drying, coincided with an influx of Rohingya refugees from Myanmar, lowering labour costs by creating competition with members of poorer households within the fishing community for work. On Dublar Char, demand for cheap and pliant workers was met in part through the creation of a pool of unfree labour operating under conditions of transitory slavery; an arrangement made possible by the island's remoteness which places it almost beyond the reach of state governance, rendering it an effective prison colony. In Daspara, much of the burden of providing cheap and flexible labour was shifted onto women members of the fishing community itself, in part through everyday discourses around duty and belonging.

In addition to taking large cash advances to cover operating costs, dried fish producers are also often obliged to sell part of their output on credit, resulting in frequent difficulties with cash flow. All the labour arrangements described above serve the purpose of minimizing cash outlays and ensuring the existence of a constantly available but highly flexible supply of low-cost labour which can be utilized on demand to process widely fluctuating volumes of raw material. Evidence for this is provided by the existence of payment in kind and piece rate work at all sites studied. This was most obvious at Daspara (where the vast majority of women workers' income was in the form of fish processing byproducts), but was also evident on Dublar Char (where dhulabanga mahji received a share of the catch as payment, transferring the risk of a poor season from bohaddar to dhulabanga mahji and, ultimately, to the dhulabanga.) In Nazirartek, khola operators gave small quantities of fresh fish to workers from time to time, but in some cases allowed workers opt for a small cash payment instead, indicating the implicit function of fish provided in this way as a wage in kind. By minimizing risk and expenditure for the producer, all of these arrangements are also designed ultimately to maximize extraction of the surplus value of labour from workers.

At all sites, exploitation of labour was legitimated through a variety of discursive practices, often involving identity. In both Nazirartek and Dublar Char, these centered on the invocation of a binary insider/outsider definition (locals versus foreigners), whereas at Daspara, this distinction was inverted, with female extended family members and neighbours of dangy owners participating in fish drying activities, in part, out of a sense of communal identity and the obligations which this entailed.

However, for Daspara's women fish workers, the decision to participate in the labour force was consensual, and influenced by the opportunity to earn discretionary income and thereby, greater autonomy. Thus, they did not experience their exploitation in the same manner as the Rohingya of Nazirartek or the dhulabanga of Dublar Char. The status of the former group as highly vulnerable and impoverished outsiders forced them to work at any available opportunity, out of an urgent economic compulsion, whilst the latter group did so under the threat of physical force. These different sets of conditions and their attendant labour relations can be understood to have resulted in markedly different subjective wellbeing outcomes for the workers involved; broadly positive overall in the former instance, and strongly negative in the latter two.

### ***10.5.2 Revisiting Wellbeing in Small-Scale Fisheries Value Chains***

This chapter presents empirical findings on the livelihoods and identity of labour employed in dried fish production in Bangladesh. Wellbeing – conceived of in terms of overlapping material, subjective and relational spheres – provides a powerful integrative framework for addressing these issues. The adoption of a value chain approach in defining the scope of the research complemented an emphasis on wellbeing by decentering fishers (the usual focus in fisheries research) in the analysis. In doing so, attention was directed toward the largely 'invisible' women and men labourers engaged in producing dried fish; itself a largely 'invisible' product, despite a large proportion of marine and freshwater landings in Bangladesh and many other Asian and African countries being processed in this way (e.g. Hortle 2007; Ruddle and Ishige 2010; Gordon et al. 2011).

Although the 'value' in value chains is usually conceived of in purely economic terms, in the context of this book's analytical framework and empirical evidence presented in this chapter, there is an obvious link to be drawn to a more broadly defined range of values embedded within the networks of relationships, interactions and exchange that constitute small-scale fisheries value chains. Linking to the social wellbeing framework, the multidimensional values associated with fisheries value chains span the material (e.g. the nutritional value of fish to which processing and distribution facilitates consumer access), the subjective (e.g. feelings of pride or associations of shame linked to membership of hereditary fishing and fish trading communities), and the relational (e.g. values reproduced through discourses around gender and identity, which shape the terms under which women and men engage in, or are excluded from, employment in different value chain segments).

Approaches that emphasize wellbeing and value chains are also highly compatible with those that foreground political economic analysis, because of the attention to relationships and materiality that both demand. In fact, many of the fundamental questions to be addressed when attempting to understand the wellbeing of actors in



value chains are the same as Henry Bernstein's 'four key questions of political economy': "who owns what?", "who does what?", "who gets what?", and "what do they do with it?" (Bernstein 2010, p22). Making this agenda more explicitly wellbeing oriented simply entails adding a fifth question; "how do they experience this?" Answering this final question requires paying attention to the intersection of economic and power relations with interpersonal social relations and cultural and discursive practices. Linking together the material, subjective and relational in this way provides a broad, nuanced frame of analysis, capable of capturing and accounting for some of the complexities of social life as experienced by actors in small-scale fisheries or, for that matter, in any other social system.

However, as the findings presented here indicate, turning attention away from fishers themselves and redirecting it toward the labour employed by fishers and fish driers has potential to upset the "notions of fairness, share systems, kinship connections, locally adapted legal systems, shared attachment to place and profession, and subjectivities which draw these elements together" commonly espoused with reference to fishing communities (this volume, p. x). Instead, we see that these institutions and identities, whilst important components of fisher wellbeing, may also be implicated in relations of dominance over and exploitation of subordinate groups, both external and integral to fishing communities. This implies the need for a high degree of precision and rigour in assessments of wellbeing in small-scale fisheries, particularly where targeted at the level of community, the concept of which has itself long been critiqued (e.g. Stacey 1969). These findings also underline the need to recognise that wellbeing can have a dark side; that one group or person's wellbeing is sometimes achieved at the expense of another's.

**Acknowledgements** This chapter is a contribution to the CGIAR Research Program on Agriculture for Nutrition and Health (A4NH). The authors wish to thank Mr. Mofizur Rahman for his contributions to the fieldwork and preparation of Fig. 10.2, and Ms. Naveen Abedin for her assistance with preparing Fig. 10.1. They are also very grateful to Dr. Thérèse Blanchet for taking time to read an earlier draft.

## References

- Ahmed I (2010) *The plight of the stateless Rohingyas: responses of the state, society and the international community*. The University Press Limited, Dhaka
- Allison E, Ellis F (2001) The livelihoods approach and management of small-scale fisheries. *Mar Policy* 25:377–388
- Barman RK (2008) *Fisheries and fishermen: a socio-economic history of fisheries and fishermen of colonial Bengal and post-colonial West Bengal*. Abhijeet Publications, Delhi
- Belton B, van Asseldonk IJM, Thilsted SH (2014) Faltering fisheries and ascendant aquaculture: implications for food and nutrition security in Bangladesh. *Food Policy* 44:77–87
- Bernstein H (2010) *Class dynamics of agrarian change*. Kumarian Press, Boulder
- Blanchet T, Biswas H, Dabu MH (2006) *Slaves for a season: bonded child labour in the dry fish industry*. Save the Children Sweden–Denmark, Dhaka

- Camfield L, Crivello G, Woodhead M (2009) Wellbeing research in developing countries: reviewing the role of qualitative methods. *Soc Indic Res* 90:5–31
- Gordon A, Pulis A, Owusu-Adjei E (2011) Smoked Marine fish from Western region, Ghana: value Chain assessment. USAID integrated coastal and fisheries governance initiative for the Western region. WorldFish Center, Ghana, 46pp
- Hortle KG (2007) Consumption and yield of fish and other aquatic animals from the lower Mekong Basin. MRC Technical Paper No. 16. Vientiane, Mekong River Commission, 87pp
- Huda MS, Haque ME (2001) Current status of Dublar Char winter fishery and option for improvements. Draft report prepared for the Sundarban Biodiversity Conservation Project, Aquatic resources division
- Islam MM (2011) Living on the margin: the poverty-vulnerability nexus in the small-scale fisheries of Bangladesh. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer, Dordrecht, pp 71–95
- Jensen KB (2013) Child slavery and the fish processing industry in Bangladesh. *Focus Geogr* 56(2):54–65
- Johnson DS (2006) Category, narrative, and value in the governance of small-scale fisheries. *Mar Policy* 30:747–756
- Reardon T, Chen K, Minten B, Adriano L (2012) *The quiet revolution in staple food value chains: enter the dragon, the elephant and the tiger*. Asian Development Bank, Mandaluyong City
- Ruddle K, Ishige N (2010) On the origins, diffusion and cultural context of fermented fish products in Southeast Asia. In: Farrer (ed) *Globalization, food and social identities in the Asia Pacific Region*. Sophia University Institute of Comparative Culture, Tokyo
- Stacey M (1969) The myth of community studies. *Br J Sociol* 20(2):134–147
- Toufique KA, Belton B (2014) Is aquaculture pro-poor? Empirical evidence of impacts on fish consumption from Bangladesh. *World Dev* 64:609–620
- Weeratunge N, Béné C, Siriwardane R, Charles A, Johnson D, Allison EH, Nayak PK, Badjeck MC (2013) Small-scale fisheries through the wellbeing lens. *Fish Fish* 15(2):255–279
- White SC (2010) Analysing wellbeing. A framework for development policy and practice. *Dev Pract* 20(2):158–172
- Wood G (2003) Staying secure, staying poor: the “Faustian bargain”. *World Dev* 31(3):455–471

**Ben Belton** is an Assistant Professor of International Development at the Department of Agricultural, Food and Resource Economics, Michigan State University. He has worked extensively in South and Southeast Asia, and is currently based fulltime in Myanmar, where he conducts research on agriculture and the rural economy. A rural sociologist, his work focusses particularly on the political economy and political ecology of aquaculture and capture fisheries development, agrarian change, food and nutrition security, and poverty.

**Mostafa A.R. Hossain** is a Professor in Aquatic Biodiversity in the Department of Fish, Biology & Genetics, Bangladesh Agricultural University. His research fields are aquatic biodiversity & conservation in inland and marine ecosystems, climate change adaptation and disaster risk reduction in fisheries & aquaculture, dried fish value chains, wetland management, fish and shellfish production systems and sustainable livelihoods of stakeholders in aquatic value chains. He also works as reviewer of several international journals, chief editor of FAN – Fisheries & Aquaculture News, Focal Point, CEM-IUCN Bangladesh and Lead Assessor (Crustacean) in updating the Species Red List of Bangladesh.

**Shakuntala H. Thilsted** is Research Programme Leader, Value Chains and Nutrition at WorldFish, stationed in Phnom Penh, Cambodia. Her broad area of research and expertise is food-based strategies for improved food and nutrition security. She has carried out research in low- and mid-income countries in Africa and Asia, focusing on the potential of nutrient-rich small fish in

combating and preventing micronutrient deficiencies, in particular, vitamin A, vitamin B12, iron, zinc and calcium. Together with WorldFish partners, she has developed fish-based products, using dried small fish, for women and children in the first 1000 days of life. These products can improve dietary diversity and supply multiple nutrients which are essential for optimal growth, development and cognition in infants and young children. She plays a pivotal role in promoting fish in food systems approaches for improved nutrition as well as the importance of the fisheries sector in contributing to achieve the Sustainable Development Goals (SDGs), in many international, regional and national fora.

# Chapter 11

## Risk, Reciprocity and Solidarity: The Moral Economy of Fishing in Trincomalee, Sri Lanka

Gayathri Lokuge and Mohamed Munas

**Abstract** This study explores the role of religious values at the individual and community levels in relation to the moral economy of fishing in Sri Lanka. Comparing daily interactions among Sinhala Buddhist, Tamil Hindu and Muslim fishers in the eastern coastal district of Trincomalee, this chapter explores how fishers choose and mix different value systems to justify various decisions and behaviours. Both religious and fishing motivations are examined. Our findings indicate that people take advantage of the malleable nature of seemingly static religious doctrine to mix, match and choose from different religions to suit the current need and the occasion. Religious beliefs and ideologies also create and sustain socio-political differences, which are further constructed by macro-level political discourses. This chapter also analyses how discourses on religious identity play out in everyday life and how economic rivalries over fishing resources spill over into—or are reinforced by—religious and ethnic tensions in the post-war context. In terms of fisheries governance, the analysis shows that managers need to recognise and understand the role of religion and value systems in shaping the moral economy of fishing, as well as the processes by which religious beliefs and ideology can create and sustain social cleavages.

**Keywords** Fishing • Moral economy • Religion • Sri Lanka • Value systems

### 11.1 Introduction

Question: Do you go to the *kovil* [Hindu temple]?

Answer: Yes. To the *Kali kovil* [temple of the Hindu goddess, *Kali*].

Question: Do Sinhala [Buddhist] people also go to the *kovil*?

---

G. Lokuge (✉)

Wageningen University, Wageningen, The Netherlands

Centre for Poverty Analysis, Colombo, Sri Lanka

e-mail: [gayathri@cepa.lk](mailto:gayathri@cepa.lk)

M. Munas

Centre for Poverty Analysis, Colombo, Sri Lanka

e-mail: [munas@cepa.lk](mailto:munas@cepa.lk)

Answer: Yes, of course. Why, all those who fish donate thousands of rupees to the *Kali kovil*. They make offerings of fruits and break coconuts before they leave on fishing trips. They tell the *Kaliamma* [Mother *Kali*] before they set out in their boats. (Wife of a boat owner and operator, Sinhala Buddhist)

The above conversation took place in Trincomalee, on the east coast of Sri Lanka, between one of the researchers and a Sinhala Buddhist woman. This woman counts her family among the many Sinhala Buddhist fishers who, she claimed, worship and offer coconuts, money, fruit, sweets and other items to the Hindu goddess, *Kali*, before their fishing trips. These fishers believe in a profound supernatural influence on their fishing livelihoods. However, their religious identities seem blurred and shifting: Buddhists borrow or accommodate Hindu deities in their spiritual practices, continuing an exchange between the religions that goes back centuries in Sri Lanka (Pfaffenberger 1979). The post-war context adds new significance to this practice, where group identities, such as religion, are continuously shifting, clashing and forming alliances. Religious beliefs are often a strong cultural factor in people's decision making, and, as in other areas of life, these beliefs are frequently central to how people understand fisheries (Brown 2008). Because of the risky and unpredictable nature of fishing, where people are at the mercy of the elements on the open seas (Acheson 1981), fisher communities are deeply dependent on forces more powerful than themselves to ensure a successful venture.

In contrast to the shared religious practices between Hindus and Buddhists in Trincomalee, Muslims, the third largest religio-ethnic group in Sri Lanka, remain distinct and absent from shared religious spaces. Further, because Muslims in Trincomalee are closely linked with illegal fishing practices, they are often viewed with hostility by Tamils and Sinhalese people. During our research, a Muslim fisher not engaged in illegal fishing explained an incident that occurred between a group of Muslim illegal fishers and a Tamil fisher:

[Muslim illegal fishermen] use dynamite on big rocks in the sea to catch fish. Last week, there was a big incident. They had fought with another fisherman. Some of them were even injured and admitted to hospital. They fought with a boy from *Keeri*<sup>1</sup> [A Tamil community slightly north of Trincomalee town]. This is a place where about 25 boats gather to fish, but these people had gone there, and, by using dynamite, caught about 2000 kg of fish in 1 day. (Male, one-day boat fisher, Muslim)

Three decades of civil war in Sri Lanka ended in 2009, when the military brutally annihilated the Liberation Tigers of Tamil Eelam (LTTE). Despite hopes of peace, 'new' forms of identity-based violence are taking shape, mainly along religious lines (The Asia Foundation 2011; Gravers 2015; Hasbullah and Korf 2013; Stewart 2014). One such line of tension culminated in June 2014, when a Sinhala Buddhist mob, instigated by a group of extremist Buddhist priests, attacked the southern Muslim town of Aluthgama, causing damage to property. Although this incident (and similar ones in the past) had strong political motives, subsequent analysis revealed the underlying economic rivalry driving the violence: The commerce and trade sector in the country is historically perceived to be an area of Muslim

---

<sup>1</sup>To ensure anonymity, the name of this village has been changed.

domination (Stewart 2014). Further, the 2011 National Values Survey found that Sri Lankan society is generally becoming more religious, with this trend being strongest among Buddhists (The Asia Foundation 2011).

Most existing ethnographic studies of fisher communities have discussed their participants' religious affiliations, with some investigations focusing on the macro- or community-level influence of religion. However, extensive searches of the literature revealed no explorations of how religious beliefs shape the fishing occupation at the individual level. Previous research in Sri Lanka does extensively document the targeting of one religious group by others, based on economic rivalry in some instances and on opposition to religious and cultural beliefs in others. However, how these tensions play out or manifest in the lives of ordinary women and men is not captured in the academic literature. This chapter attempts to address these gaps by exploring how fishers reconcile their economic and moral values at an individual level. Further, the chapter endeavours to understand how religious ideology creates and sustains socio-political differences and relations based on those differences, which are at times also shaped by macro-level ideological discourses, through the case of Sinhala Buddhist, Tamil Hindu and Muslim fishers in Trincomalee.

## 11.2 Conceptual Approach

Anthropologists 'are often interested in how the value systems, worldviews, and social organizations of different peoples may be related to their modes of production, their ways of making a living' (Gatewood and McCay 1990: 15). Sayer (2004: 1) has argued that 'it is now commonplace to note the influence of rules, habits, norms, conventions and values on economic practices and institutions and to note how these vary across different societies'.

The terms 'morality' and 'value' figure prominently in our analysis. Morality, or ethics, concerns the (formal and informal) norms, values and dispositions regarding behaviour that affects others, implying certain conceptions of what is good or harmful (Sayer 2004: 3). Further, morality may be understood as goals other than the mere accumulation of profit, including social status and prestige, social cohesion and the sustainability of an economic system (Näre 2011: 400). Values refer broadly to underlying ideals (held values, such as bravery, fairness and happiness) and also the relative importance of things (assigned values, such as the monetary value of goods) (Brown 1984). Values come into play when people depend on the specific ideas or understandings that arise from their experiences in choosing particular actions (Biggart and Beamish 2003; Jentoft et al. 2010). Values may be the foundation from which cultural groups perceive and understand things (Chan et al. 2012), but it is also possible that values may have little effect on behaviour except when there is a conflict with opposing value systems (Swartz 1996). This may be partially explained by the difficulty of making some values explicit because of their deeply subconscious nature.

### ***11.2.1 Self, Society and the Moral Economy***

Early anthropological work on moral economy was closely linked to a number of discourses, including the gift economy (Cheal 1988), which highlights reciprocal relationships; political economies concerned with maintaining social cohesion and solidarity (Meillassoux 1981); reciprocity and the gift economy in relation to households (Silverstone et al. 1992); traditional views of social norms and obligations (Thompson 1971); and economic justice and exploitation (Scott 1976). This body of work has emphasised the moral economy as an alternative to the market economy (Näre 2011).

However, as Sayer (2004: 3) has emphasised, non-market and non-economic processes cannot completely escape market forces. Contemporary sociologists have, therefore, included various economic fields (such as markets) in their analyses of specific moral economies (Booth 1994; Näre 2011; Sayer 2004). The tradition of looking at the moral and economic spheres together goes back to the work of Adam Smith (1965), who held that all economic processes are embedded in the social world and cannot be understood independently of social morals and norms (Booth 1994: 653; Hollingsworth 2006: 103; Polanyi 1957: 46; Sayer 2004: 2).

Economic relationships are influenced by actors' moral sentiments and decisions (Sayer 2004: 2). Economic behaviour itself involves and depends on people assigning values—most obviously use-values and exchange values, but also ethical or moral values—directly or indirectly, to economic activities. A fitting example is Stirrat's (1988) discussion of fishers in a rural north-western Sri Lankan village. In this Christian community, the fishers' aim was to maximise their profit, but their approach was also mediated by an ethic of hard work, which the church encouraged. It is always possible for economic values and ethical or moral values to come into tension during the decision-making process (Sayer 2004: 4). For example, there may be instances where the greater public good is compromised in favour of self-interest. However, this discussion of tension may be taken forward by acknowledging that, rather than representing a simple dichotomy between egoism and altruism, these values exist on a spectrum, with a range of shades and complex combinations found between those two poles.

Just as economic activities may be influenced and structured by moral dispositions and norms, these moral norms may be compromised, overridden or reinforced by economic pressures (Sayer 2004: 2). In this chapter, we analyse how one such moral dimension—religion—influences the economic activity of livelihoods and how the economic pressures of the need to maximise profit override or reinforce moral/religious convictions.

### ***11.2.2 Religious Values and Fishing***

For the purposes of this study, we define religion as a cultural system encompassing a series of characteristics, as documented by Southwold (1978: 36–37). Several characteristics of religion that are salient to our analysis are as follows: (1) a central

concern with god-like beings and human beings' relations with them; (2) a dichotomisation of elements in the world into sacred and profane, as well as a central concern with the sacred; (3) ritual practices and beliefs that are neither logically nor empirically demonstrable or highly probable but must be held on the basis of faith; and (4) An ethical code supported by such beliefs, with supernatural sanctions on infringements of that code. The relational aspect with deities, which could take the form of negotiation, reciprocity or submission, is a central theme in our analysis. Moreover, because ritual plays a strong role in the religious interactions of the coastal people in Trincomalee, fear or respect of the supernatural is another important dimension of our analysis.

Trincomalee hosts people from each of the four main religions practiced in Sri Lanka: Buddhism, Hinduism, Islam and Catholicism/Christianity. Certain religions, including Hinduism, encompass all of the above characteristics, whereas others, such as Buddhism, encompass fewer. The main difference between Islam and Hinduism, on the one hand, and Buddhism, on the other, is that adherents of the former believe in only one god, whereas adherents of the latter believe in a pantheon of gods and goddesses.

Although the differences are not completely clear-cut, a distinction should be made between the religion of religious texts and scripture, and popular religion. Culture plays a role in creating deviations in actual practice from what is laid out in religious texts. Especially in multi-religious societies, such as Trincomalee, these transgressions are commonly practised and accepted. An example can be found among the Sri Lankan Buddhists; the *Therawadha* Buddhism practiced does not attribute a power of granting wishes to the gods, but in 'practical Buddhism', as Nash (1966) and Southwold (1978) have called it, Buddhists make offerings to gods and goddesses that are primarily Hindu in exchange for the fulfilment of material wishes.

In actual fishing practice, despite modern technological advances, fishers pit themselves daily against the forces of nature. Consequently, fishers look to the role of chance in fishing and the unpredictable nature of the catch to legitimise their dependence on the supernatural, as well as related rituals and beliefs (Kurien 1995; Ram 1991). This leads to a stronger sense of religiosity, with a vigour and depth of belief (Gupta 2003). However, in Buddhism, the power of the divine, closely linked to the supernatural in general, is arguably different from that of deities in other religions. While statues of both Hindu and non-Hindu gods are quite closely associated with Buddhist temples, the *stated* purpose of these statues is to transfer merit (a transferable energy generated by the wholesomeness of the devotee) to these gods, not to ask them for any material benefits. However, in practice, people do deviate from this stated purpose (Southwold 1978).

There is little research on how religion has affected natural resource management in contemporary societies (Brown 2008; Collet 2002). Religion is part of the culture of fishing societies the world over (Kurien 1995). One of the few studies discussing religion and fisheries (Brown 2008) has claimed that fishers' understanding of how fisheries works is based on 'powerful and sincerely held' religious beliefs (Brown 2008). However, we contend that these religious beliefs are neither



fixed nor static, but change based on the context or the need of the day. Thus, rather than sole devotion to one religion (or the basic premises of a particular religion), fishers attach meanings to, adopt and adapt basic religious tenets and ideologies that provide meaning and justification for their livelihood activities. This process can only be understood within a multi-religious environment.

Religious beliefs are very diverse, changing from person to person, and they are difficult to articulate. Religious values are also difficult to quantify. People may be categorised by 'their religious texts and their mythologies', but how individuals understand religion (Brown 2008: 7), or how they attach meaning to different religious tenets, is difficult to pin down. How they behave based on these meanings is even more difficult to understand. One could also question whether fishers (or people in general) use religious values to justify economically profitable decisions. Brown (2008) has argued that they do not. We wish to shed some light on this matter in our analysis.

We focused on the religious value systems attached to fisheries for several reasons. First, there is a complete dearth of literature on religious values and fisheries in Sri Lanka and in the South Asian region, except for two cases from Kerala (Houtart and Nayak 1988; Kurien 1995). These studies focused on the influence of religion on one particular fishing community. In contrast, our study examined different religious groups and communities interacting and borrowing from each other to show the blurring and crossing of boundaries among different religious practices and beliefs. Notably, there is a complete lack of previous work on Buddhism and fishing, which we also aim to begin to address through this chapter.

Second, it was our intention to study the valuation process, rather than value as an outcome or static product. To this end, an analysis of the inherently contradictory and complementary nature of religious/ideological values in the daily lives of the fisher communities of Trincomalee can add more depth and nuance to our argument. Rather than performing a descriptive analysis of how different values driven by religious/ideological beliefs impact fishing livelihoods, our aim was to bring out the complexities of the diverse value systems—or moral standpoints—at play in the everyday lives of coastal fishing communities in Trincomalee and to explore how people are able to reconcile these different value systems.

## **11.3 Study Context and Methods**

### ***11.3.1 Study Context***

The fisheries sector in Sri Lanka can be subdivided into coastal, deep-sea and fresh-water/culture fisheries. Small-scale marine fisheries fall into the first category and use traditional methods, crafts and equipment. Ampara, Batticaloa and Trincomalee Districts in the Eastern Province employ the highest number of fishers nationally in

absolute numbers and account for 40% of the total number of fishers in the country (Ministry of Fisheries and Aquatic Resources Development 2015).

Comprising 11 Fisheries Inspector divisions, Trincomalee is one of the biggest fishing districts in the country, both geographically and in terms of the number of fishermen (Fig. 11.1). Trincomalee has 32,970 active fishermen (Ministry of Fisheries and Aquatic Resources Development 2015), of a total of 72,504 employed men (Department of Census and Statistics-Sri Lanka 2016). In terms of demography, Trincomalee's population includes 27% Sinhalese, 30.6% Sri Lankan Tamils, 40.4% Sri Lankan Moors and 2% other ethnicities (Department of Census and Statistics-Sri Lanka 2016). Of the 230 *Grama Niladhari* divisions in Trincomalee (the smallest administrative unit in Sri Lanka, roughly corresponding to 'village'), approximately 80–100 host marine or brackish water fishers.

Fishers in Sri Lanka belong to one of four ethnic groups: Sinhalese, Tamil, Muslim, and Malay, who practice Buddhism, Hinduism, Islam, and Christianity/Catholicism, respectively. A group of indigenous (*veder* in Tamil) men and women engage in primarily beach seine fishing<sup>2</sup> on the east coast as well. The majority of fishers are Tamil and Sinhalese, with 80% belonging to the *Karawe* caste<sup>3</sup> (Tamil: *Karaiyar*)—the only caste in Sri Lanka that cuts across the two ethnic groups.

McGilvray (2008), who has done extensive anthropological research in Batticaloa District, which is also in Sri Lanka's Eastern Province, has described the eastern coastal strip as a closely interwoven mix of Tamil and Muslim cultures. Historical sociocultural interactions between these groups included household visits, food exchanges and gift-giving. Thus, eastern Muslims and Tamils, particularly in Batticaloa and Ampara Districts, have deep and longstanding cultural ties (McGilvray 1998). However, partly because of targeted violence, general mistrust increased among Muslim, Tamil, and Sinhalese people in the east during the protracted war, and their ethnic identities have heightened. Elite involvement facilitated the creation of polarised ethnic identities (Frerks and Klem 2005). McGilvray (2008) has argued that an important characteristic of the eastern communities is the explicit Muslim interest in establishing a non-Tamil identity, or an identity based on Islam, which shapes their ideas and beliefs, lifestyles and cultural norms.

The pattern of settlements in Trincomalee, with ethnic enclaves in relatively close proximity to each other, has contributed to cultural sharing through common norms and rituals. Different people living in the same location are likely to have interrelations with each other (Leach 1954). Muslim (loosely referred to here as those who follow Islam) and Tamil intermarriage has diffused cultural practices, except perhaps for the caste structures in eastern Trincomalee (McGilvray 1998). The overwhelming presence of Sinhala Buddhist fisher-folk—both women and men—at Hindu *kovil* (temple) festivals, fulfilling vows in the Hindu tradition, is

---

<sup>2</sup>A beach seine is a fishing net deployed from the beach that hangs vertically in the water with its bottom edge held down by weights and its top edge buoyed by floats. A group of fishermen sets and pulls the net. The number of fishermen required varies.

<sup>3</sup>Traditionally, fishers are associated with this caste, which is among the higher echelons in the caste hierarchy.

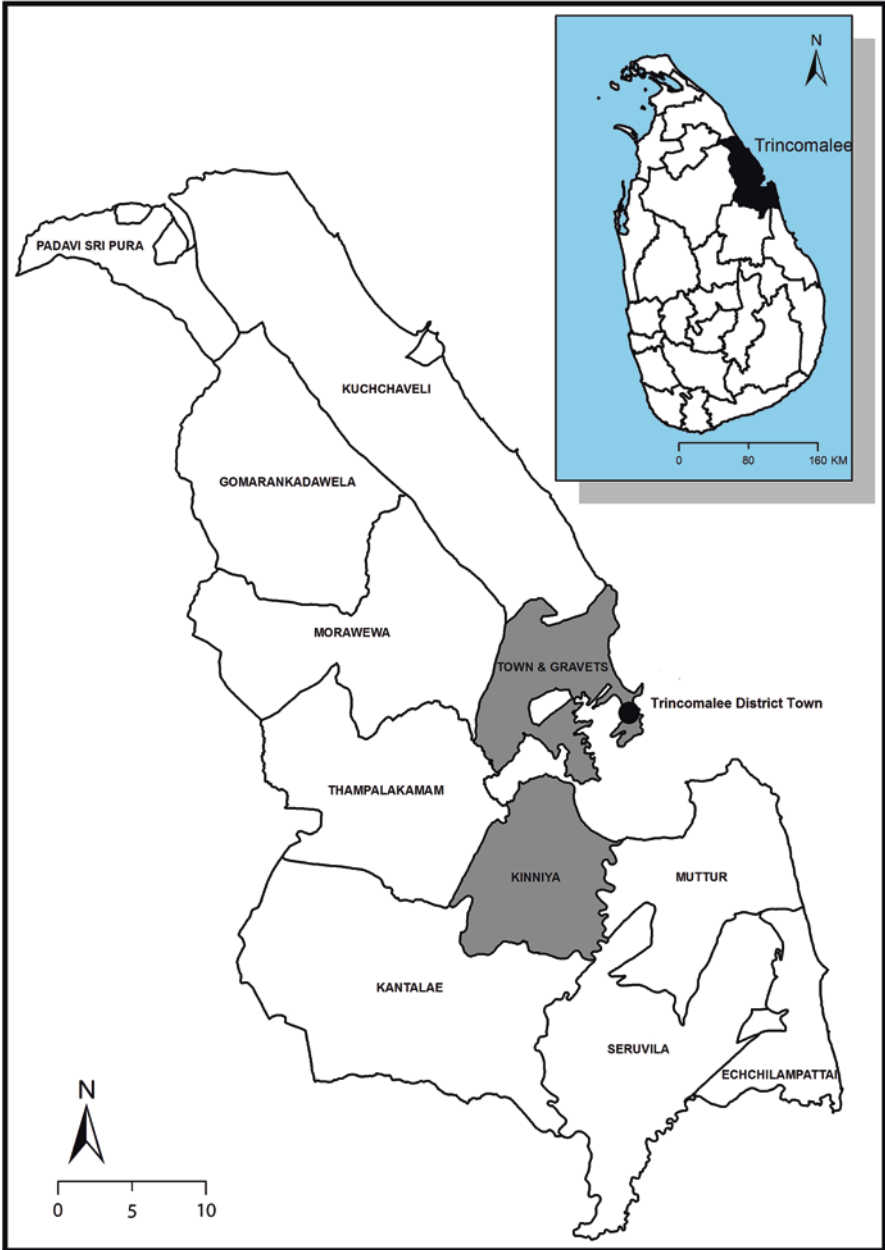


Fig. 11.1 Map of Trincomalee District showing the study site locations

another example of this diffusion. However, there is evidence of attempts to ‘purify’ certain areas in the east, such as Kattankudy (a Muslim town in the Batticaloa District), from ‘un-Islamic’ cultural elements. An example of this has been seen in the destruction of a Sufi mosque (Hasbullah and Korf 2013). Resistance to cultural diffusion can sometimes take a violent form.

Historically, religious tensions in Sri Lanka have been particularly acute between Buddhists and Muslims, Catholics and Buddhists, and Hindus and Muslims, the latter especially on the east coast (The Asia Foundation 2016; McGilvray 1998). These tensions tend to simmer for a long time and often fluctuate in response to local, national and international developments. Additionally, the tensions can manifest as violence when manipulated by political forces for electoral gains. The 1915 Muslim–Buddhist riots in the central part of the country were a major incident of this nature. The violence lasted more than a week and resulted in the loss of lives and damage to residential and commercial properties (Government of Sri Lanka 2009). Although thought to be rooted in Buddhist nationalism, economic causes such as the desire to eliminate Muslim business competitors may also have inflamed the riots (De Silva 2005; Jayawardena 1970). Sri Lankan history post-independence is rife with such religious tensions, and this includes all four major religions in the country. More recently, the 2001 riots between Muslims and Buddhists in Mawanella and Kegalle, although primarily driven by economic rivalry, were exacerbated by tensions between two political parties, the Muslim Congress and the *Jathika Hela Urumaya*, over land distribution in the east. Numerous internal and external factors fuelled these tensions: The 2001 destruction of the Bamiyan statues in Afghanistan, for instance, created a tense environment locally. Similarly, Sri Lanka shared the accelerated Islamophobia that followed the 9/11 attacks in New York (Lanka Newspapers 2013).

An escalation of tensions against Muslims is clear in post-war Sri Lanka, especially over the past 3 years; for instance, the Buddhist *Bodhu Bala Sena* (BBS) has spearheaded and incited anti-Muslim fervour, including a massive nationwide campaign against the Halal certification of food. Economic issues are clearly at the forefront of the most recent violence, as demonstrated by the BBS-led boycott of Muslim business establishments. However, although it was initially started for economic reasons, the BBS offensive then proceeded to denounce Islamic social, cultural and religious practices. Campaigns against cattle slaughtering, which were significant in accelerating the tensions, are closely tied to Hindu and Buddhist religious or cultural beliefs regarding the consumption of beef. Fuelled by political patronage, these tensions culminated in the Aluthgama riots between Muslims and Sinhalese people in June 2014, where three people were killed and 78 were injured (Bastians and Harris 2014).

### 11.3.2 *Methods and Data*

The data used for this chapter formed part of the PhD research of one of the authors (Lokuge). This larger study explored linkages between identity, intersectionality and coastal livelihoods. The data collection followed an ethnographic approach in five small- to medium-scale wholesale fish markets, three landing sites and 30 fisher communities. The data were drawn primarily from locations close to Trincomalee District town, complemented by two additional locations: Keeri, a predominantly Tamil Hindu community located slightly north of Trincomalee town, and Kinniya, a predominantly Muslim community located slightly south of Trincomalee town (Fig. 3.1). In 2012 and 2013, we interviewed, observed, and interacted with over 100 women and men in coastal Trincomalee District. Participant observation covered religious festivals and rituals organised within the communities, as well as the methods, types, and quantities of fish being landed, followed by the marketing process. These observations were mainly of small-scale fishers using either one-day mechanised<sup>4</sup> or non-mechanised boats, beach seine operators and crews, women who worked in beach seine fishing activities and engaged in gleaning activities,<sup>5</sup> and women and men engaged in retail and wholesale fish selling.

The analysis presented in this chapter draws upon narratives of men engaged in beach seining—both owners and crew members, one-day boat operators and wives of fishermen. They were Muslim, Tamil, and Sinhala individuals, following Islam, Hinduism, and Buddhism. We selected these groups to understand their religious values and the way they enact religion or spirituality in their livelihoods as fishers. Moreover, we used data gathered from members and committee members of fisheries and religious institutions (such as fisheries societies/cooperatives, Muslim and Hindu places of worship) to understand their perspectives on and roles in fisheries-related activities. The main researcher (Lokuge) is a Sinhala Buddhist woman, who worked with two Tamil-speaking female assistants during the data collection process. We worked as a team, speaking both local languages, depending on the context. The co-author of this paper (Munas) is a Muslim man. All of the data collected for the larger research project were coded using NVivo qualitative data analysis software, and the thematic nodes of religion, norms and rituals, societies and identity were used to build the arguments presented in this chapter.

A main contextual limitation of this study was the exclusion of Christians/Catholics, who are mainly long-term migrant fishers in Trincomalee. This is because the in-depth data collection focused on a radius of about 12 km from Trincomalee town, and the migrant Christian/Catholic fisher settlements are predominantly in the north of Trincomalee, beyond this radius.

---

<sup>4</sup>Boats with outboard engines for fishing trips that return within the day which use nets or long line hooks for catching fish.

<sup>5</sup>Collecting clams or mussels in the lagoon areas, usually using their hands.

## 11.4 The Role of Religion in the Fishing Communities of Trincomalee

At the individual level, religion takes a central place in a fisher's life, irrespective of their specific faith. Every activity in fisher communities—buying new boats, going to sea in the morning, going to market, opening a new shop—is performed after a religious ritual. For fishers and their families, these practices provide a sense of shared risk, and an acknowledgement of divine powers. Further, for Hindus and Buddhists, the deities are seen such that protection, prosperity and success are expected in a reciprocal relationship based on offerings and a sense of fear of, or subservience to, these divine powers. A Muslim fisher explained the rituals accompanying the launching of a new boat:

Tamil and Sinhalese people will place a banana tree<sup>6</sup> in the boat and light firecrackers<sup>7</sup> when they launch a new boat, but we don't do that. Instead, sometimes we give dates, banana, candy and biscuits to the children. (Male, one-day boat fisher, Muslim)

The adoption of Hindu rituals by Buddhists is neither new nor limited to coastal communities. This practice goes as far back as the times of the Buddhist Kandyan kings, who married Indian Hindu princesses (Gombrich and Obeyesekere 1988). We observed that, faced with a real need for protection and endowments from powers greater than human beings, Buddhist fishers turn to Hindu gods, goddesses and rituals. The strong belief in the supernatural is most explicit in reference to changes in weather sought through the enactment of religious ritual:

This is god's area ... so things are not bad for the Trincomalee people. There are *kovils* everywhere here. Until milk is poured into the sea, the sea is rough. The *Kali kovil* pours milk into the sea. Then the sea becomes calm, and it becomes possible to put out to sea. (Male, one-day boat fisher, Sinhala Buddhist)

In a community where beach seine fishing is still a main form of livelihood, the multi-ethnic and multi-religious fisheries society has supported the annual Hindu *kovil* festival, symbolically if not financially, for generations. Currently, this festival costs about 80,000 LKR (560 USD), with costs covered by funds collected from the beach seine operations, as well as individual donations of cash and labour from Muslim, Hindu, Buddhist, and Catholic villagers. A Sinhala Catholic beach seine owner, one of the community's pioneers, described the preparations, planning and financing for the *kovil* festival, and how these festivals bring the community together, irrespective of religion:

On the 30th of every month, we can set the beach seine as many times as we like, and anyone can set the net. Half of the income goes to the crew members and the other half to a fund for the *kovil* festival. The owners don't take anything from the income [on that particular day]. (Male, beach seine fisher, Sinhala Catholic)

---

<sup>6</sup>Primarily for prosperity.

<sup>7</sup>To ward off evil spirits.

At a broader, inter-community level, the Hindu–Buddhist sharing of rituals is most clearly visible at the main *kovil* festivals, where we saw people of both faiths fast, worship and fulfil various vows. Muslims are a group that is clearly excluded from these religious performances. The strong emerging trend of Muslim exclusion from the fishing areas is at least partially explained by their separation or exclusion from cultural practices. This exclusion manifests mainly in tensions over illegal fishing, with vehement Sinhala Buddhist allegations that it is the Muslims who mostly engage in this practice.

The centrality of religion in a fisher's life is not static; sometimes it needs to be negotiated through opposing value systems. In fact, religiosity does not always translate into strict adherence to religious practice and ritual. Although the performance of these practices is one indication of religiosity among fishers, individual and communal struggles to decide between contradictory religious and economic values are ever present. These internal negotiation processes take place through accommodating certain values at a given point of time and rationalising the decisions made, as part of the meaning making attached to daily activities.

## 11.5 The Impact of Conflict on Fisher Livelihoods: Shared Religious Experiences

The pervasive feeling of insecurity during the war undoubtedly strengthened people's need to seek divine protection. During the war years, fishers not only pitted themselves against nature; they faced risks to life and equipment at the hands of the Sri Lankan military and the LTTE alike. As one woman explained, Hindu–Buddhist boundary markers seemed to blur in the face of war violence:

Nothing wrong has happened to those people who go to the *Kali kovil* and *Koneshwaran kovil* [the temple dedicated to the god Shiva]. Even during the war, those people stayed safe. A lot of people who didn't worship died. Sinhala [Buddhist] people who also went against these things [i.e. didn't worship the gods] were punished. Those who destroyed *kovils* were punished. They died. They were killed by the LTTE. (Housewife, Sinhala Buddhist)

While making and fulfilling vows for the menfolk's success and safety at sea are an important part of the responsibilities of a woman from a fishing family, some of the Buddhist women's faith in Hindu divinity goes beyond these factors. Illness in the family or the desire for material benefits become occasions to seek divine intercession. The belief that these requests have been granted deepens faith as well. Such religious and cultural mixing and ambiguity also appear to be common among Indian fishers (Ram 1991). However, the woman quoted above seemed conflicted about her cultural mixing. Although she was devoted to the Hindu gods and goddesses and followed the rituals more strictly than some Tamil Hindus, she had very limited interactions with the Tamil women at the Hindu *kovil*. She communicated with others in the *kovil* in Sinhala, distinctly reluctant to interact with Tamil women. She explained her faith as follows:

When my family first arrived here, we didn't have a house to live in. So I made a vow to the *Kali* goddess: 'Please give me a house'. Within a week, one of our aunts here said, 'Take my land and build a house'. From that day onwards, I didn't stop believing in *Kali*. Since my son joined the Navy during the war, I have been taking the *Kaapu* thread [a ritual 20-day fast prior to receiving a red thread from the *kovil* meant to protect the wearer]. Because of this, he has been with the navy up to now without any problems. Even though a bomb exploded just in front of him, he didn't receive even a scratch on his body. I have faith in the *kaapu* thread. (Housewife, Sinhala Buddhist)

The shared experience of the war and its aftermath is likely to have produced new shared religious practices (Spencer et al. 2014). For instance, Lawrence's (1997) ethnographic accounts of local *Amman* temples in Batticaloa provide vivid insight into how women, especially, found solace through worshipping the goddess *Amman* at the height of the war. Coastal Trincomalee shows similar patterns to those in Lawrence's account, specifically in the Buddhist accommodation of Hindu rituals and practices as explained above. Additionally, in certain instances, shared religious rituals in the same physical space led to a feeling of solidarity.

## 11.6 The Religious Moral Economy of Fishing

In this section we discuss how religion shapes the moral economy of fishing in the fishing communities of Trincomalee through reciprocity, or negotiation between deities and mortals. These negotiations are based on offerings and sacrifices made in exchange for the divine protection of lives and equipment, as well as prosperity through fishing livelihoods. These practices also contribute to a sense of social solidarity within the community and a sense of sharing across religions or communities, with Buddhist adoption of Hindu rituals (to the exclusion of Muslims). The case of the Muslim fishers highlights a negotiation to reconcile contradictory economic and religious obligations.

### 11.6.1 Hindus and Fishing: Reciprocity and Social Solidarity

The photograph below, taken during the annual Hindu *kovil* festival in a community called Keeri just north of Trincomalee town, shows fishermen performing the temple rituals for the 10-day festival (Fig. 11.2). A fish dealer, with his own multi-day boat employing three men in his fish-buying outlet (*waadi*), was the person in charge of issuing tickets at the car park. The Hindu fishers depicted show that the dichotomisation of elements in the world into sacred and profane, mentioned earlier as a characteristic of religion, is far from simple and clear cut. In daily rituals, the sacred is dragged into the profane by establishing a relationship with the deity through offerings of fruit, flowers, incense and money. During the festival, however, there is an effort to embrace the sacred. At this time, the whole fishing community





**Fig. 11.2** Hindu *kovil* festival in Keeri, a community north of Trincomalee town

turns vegetarian. In return for their offerings to the gods and compliance with religious and cultural norms, these fishermen expect the protection of their lives and livelihoods.

The temple festivals have a major impact on fisheries livelihoods and related activities. For example, in Tamil Hindu communities, the entire village may stay away from fishing activities during *kovil* festivals, which last 5–10 days. Local demand and prices for fish decline, as many Hindu and some Buddhist villagers stop consuming fish and other non-vegetarian foods for spiritual reasons. Some people are even compelled to undertake alternative livelihoods during these lean periods in the local fishery. For a specific period, the fishermen in Keeri sacrifice their income and embrace a lifestyle in accordance with religious ritual. In other words, they embrace a moral economy defined by religion in this community during the *kovil* festival.

Every year during the *Kali kovil kaapu* [Hindu temple festival to give out the blessed thread], our business will be very slow, because people don't eat non-vegetarian food during that time. (Male, retail fish seller, Tamil Hindu)

This community illustrates that the salience, or importance, of religious identity predicts time spent on religious activities (Stryker and Serpe 1982). Although these activities cause economic loss to the fishers, they consider it an investment in protecting and improving their livelihoods in the future: a reciprocal relation with the deities in return for the fishers' devotion.

However, this is not their sole motivation. The *kovil* and the fish market in this community are so closely entangled that, to be a member of one, you have to be a member of the other. This is also seen as a way of showing community cohesion, solidarity and collective action. Thus, a lack of commitment to one's role of *kovil*

patron during the festival may result in the loss of meaningful relations to others, given that one's religious identity is forfeit (Stryker and Burke 2000). This will lead to far greater and more long-term setbacks than would the loss of profit during the festival season.

### 11.6.2 *Buddhism and Fishing: To Kill or Not to Kill?*

Irrespective of the Buddhist standpoint on consuming animal flesh, the taking of life is against its fundamentals. The first of Buddhism's five basic precepts states, 'I take upon myself the rule of training to abstain from taking the life of living beings' (Dahlke et al. 1963: 3). These precepts are self-governing rules of conduct and, in contrast to the Christian commandments, no pleasing of the divine is implied. This has implications for the fishers' status in the wider social fabric, especially in contrast to agricultural communities.

Gupta (2003), in her review of maritime ethnographies in South Asia, has claimed that fishing is despised as an occupation in Sri Lanka because it is fundamentally contrary to Buddhist ethics. However, Buddhists continue to engage in fishing, mainly along the southern coastline and in certain areas of the Trincomalee coast. One way Buddhist fishermen reconcile the ethical/moral dilemma in the need to kill for their livelihood on a daily basis is by turning to Hindu deities. This is particularly easy given that Trincomalee's multi-ethnic, multi-religious communities live in close proximity to each other. A fisherman interviewed explained this point:

We don't keep a Buddha statue in the boat. It is not good. We usually keep statues of the *Kali* and *Pathhini* goddesses and the gods *Shiva* and *Murugan*. They say *vas vadinava* [bad things will happen], so we don't keep [Buddha] statues.

We never paste stickers with sayings like *Budusaranai* [May Lord Buddha bless us]. We paste stickers that just say, 'May God bless us' or *Koneshwarandeviyopihitai* [May god *Koneshwaran* bless us]. People believe that if we display a sticker saying, 'May Lord Buddha bless us', things won't work out. If we have a sticker mentioning Lord Buddha in front of our eyes while fishing, we are unconsciously made to say 'May Lord Buddha bless us' over and over again ... but then that is not going to work with the catching of fish that we do. (Male, one-day boat fisher, Sinhala Buddhist)

Buddhist fishers further legitimise their belief in Hindu gods through the historic context of Trincomalee. There is a widespread belief among them that Trincomalee is a Hindu god's domain and under divine protection. One could argue that history lends itself to this belief. The word Trincomalee translates in Tamil as 'Sacred Hill of the Three Temples' (although there are also other interpretations of the name). The majority of Buddhist, as well as almost all Hindu, fishers (regardless of the scale of their investment) make vows and worship the Hindu god *Shivan* and goddess *Kali* before setting out in their boats. The size of the offering, the type of ritual and the amount of money offered differs: The multi-day boat owners, who are seen

to have more to lose and, consequently, at more risk, tend to be more devout. A mix of fear, awe, respect and affection colours peoples' attitude towards these deities.

All the multi-day boat owners go there [to the *Shivan kovil*].

You go to the *Shivan* temple by boat, break coconuts and go fishing. Even if a small problem comes up, they go to the *Koneshwaran* temple [*Shivan kovil*], place a *pandhura* [make a vow by tying a coin in a piece of cloth] and make a vow. The *Kali kovil* has a bigger income. Everyone who goes fishing, even the small-scale fisher, goes to *Kali kovil*. (Male, one-day boat fisher, Sinhala Buddhist)

This practice appears quite common among fishing communities, whether Hindu or Buddhist, given fishing's added risk of life on a daily basis and the resulting need for protection. These shared religious practices have also contributed to a sense of collectivity among Buddhists and Hindus, to the exclusion of Muslims. Still, suggesting overly simplistic notions of social cohesion and solidarity among the two former groups would be incorrect. Unrepaired ruptures resulting from decades of violence and tensions remain between Hindus and Buddhists in Trincomalee.

### ***11.6.3 Muslims and Fishing: Our Families Will Engage in Fasting for Us***

The case of Muslim fishers and *zakat*<sup>8</sup> practices also reveals a process of negotiation and rationalisation in decision making. Some Muslim fishers value donating a portion of their income to the mosque over earning the highest possible price for their fish. These fishers anticipate that their contributions will be used for collective *zakat* giving, although the mosque may utilise these funds for non-*zakat* purposes, such as the maintenance and payment of employees' salaries. A respondent explained:

You know there is something called *zakat*. We have to give something to the mosque. It is an opportunity to collect some merit. That's why the mosque also takes up a collection. It is an income for the mosque, through which they carry out maintenance or pay the salaries of whoever is working there. (Male, non-motorised boat fisher, Muslim)

Those who cannot or do not contribute regularly to the mosque funds try to fulfil their *zakat* obligation indirectly by selling their fish at an open auction on the beach managed by the mosque in a predominantly Muslim community south of Trincomalee. This market has fewer retail buyers, and the prices are sometimes lower than the wholesale prices in the main fish market. These fishers value their contribution to the mosque over earning profit in a market with higher demand and more competitive prices for their fish.

In other instances, Muslim fishers choose to compromise their religious obligations for economic activities. Our interactions with Muslim fishers revealed a strong

---

<sup>8</sup>Zakat is one of the five pillars of Islam. It is a tithe paid by eligible Muslims to provide for the most vulnerable groups of society.

awareness of their religious obligations (for example praying five times a day, attending Friday prayers, fasting annually during Ramadan for 30 days and providing *zakat* for the poor in their communities). A constructed discourse is that the difficulties and hardships of fishing impede Muslim fishers' attempts to carry out these religious duties. Nonetheless, Muslim fishers reconcile their inability to perform these duties through various strategies. For instance, some fishing activities are practiced in line with traditional religious obligations; for example, Muslim fishers avoid fishing on Fridays because of Friday prayers. However, when it comes to fasting during Ramadan, religious and economic values conflict, because skipping fishing for 30 days at a stretch is economically disadvantageous:

Fishing is a difficult activity. So while fishing, we can't fast. Islam says that you should work 11 months and save for the twelfth month of Ramadan. But we are small-scale fishers. We can't save. So we don't fast. All the others at home are fasting. (Male, one-day boat fisher, Muslim)

Muslim fishers perceive a choice between fasting and fishing. Hence, various rationalisations and justifications lead to a compromise. Some fishers who skip fasting hold that their livelihood enables other family members (who don't go out to sea) to observe the fast. The fishers themselves believe that the demanding physical labour and the heat out at sea preclude them from fasting, but they retain value and respect when other members of their households and communities fast. The fact that the fishermen who do not fast buy their lunch from the shops is an indication of this. Consequently, the usual response when Muslim fishermen are questioned about whether they observe the Ramadan fast is, 'I don't, but my people at home do'. The implication here seems to be that family members fast on behalf of the non-fasting, fishing, income-earning men. Such a justification accommodates and absorbs the obligation and value to perform religious rites within the family, as a unit.

## 11.7 Solidarity and Economic Justice

Following the war, trust among the three ethnic communities in Trincomalee District is still fragile, especially between Tamils and Sinhalese people. Nonetheless, Tamil Hindus and Sinhala Buddhists share common space and rituals in certain religious observances. In contrast, Muslims are almost completely absent from these shared religious spaces, ritual behaviours and beliefs. Although sharing has not led to broader communal solidarity between Tamils and Sinhalese people, it does create a sense of cohesion and a shared understanding of what is moral, good or bad, specifically in relation to their livelihoods. Moreover, national anti-Muslim discourses influence feelings of solidarity among Buddhists and Hindus in coastal Trincomalee, to the exclusion of Muslims.

For multiple reasons, a strong anti-Muslim movement is taking shape in Trincomalee, as reported by Tamils and Sinhalese people. This is part of increasing anti-Muslim racist tendencies witnessed throughout the country in the past few

years (The Asia Foundation 2011; Heslop 2014). Opposition has coalesced against Muslim cultural aspects (e.g. beef consumption), partly as a consequence of economic rivalry. In Trincomalee, the perception—and reality, based on Muslim admissions—that the majority of those using illegal and destructive fishing methods are Muslims has also contributed to simmering tensions. This is not to discount the fact that there are Muslim fishermen in Trincomalee who do not endorse or engage in these fishing practices.

The most common illegal fishing method is the use of the disco net. Called a *hembilidala* (in Sinhalese) and *surukkuvalai* (in Tamil), this is a trammel net meant for use in deep seas. Its use within seven kilometres of the shore is prohibited, and the mesh size cannot be less than one and a half inches. Other illegal fishing methods that are used are a powerful light at night to attract fish towards a purse seine net and the use of dynamite.

Illegal fishing was a cause of persistent tension in Trincomalee, mainly between Muslim and Sinhalese fishers, during our field work. This is neither to imply that illegal fishing is the exclusive domain of Muslims in Trincomalee, nor that tensions do not exist among all three communities with regard to illegal fishing. However, as reported by fishers of all three ethnicities and fisheries authorities, and based on our own observations, an overwhelming majority of those engaging in illegal fishing—particularly using the disco net—were Muslims.

In 2013, over 300 cases were filed against Sri Lankan fishermen for using illegal vessels and equipment. Of these cases, 109 were from Trincomalee (Daily News 2014). According to our primary data, in October 2013, 113 disco net fishers were arrested in Trincomalee: 89 were from Kinniya, where 96% of the population is Muslim (Kinniya Divisional Secretariat 2013). Tensions between those who engage in illegal fishing and those who do not are clear. In fact, as recently as August 2015, a Tamil fisherman went missing at sea, allegedly as a result of an attack by a group of illegal fishers (Santiago 2015). A Sinhalese fish trader elaborated on this point:

Disco nets are mostly used by Muslims, but they have powerful support and escape prosecution. It is the main practice in Kinniya, Irakkakandy, Pudavaikattu and Pulmodai [areas where a sizable Muslim population engages in fishing]. Rules should apply to all of us. They can't differentiate from person to person. It is a banned method. Everyone should respect the law. How will there be reproduction [of fish] if we catch within one and a half months the fish that needs one and a half years to grow? (Male, wholesale fish dealer, Sinhala Buddhist)

Muslim fishers, conversely, demonstrated a certain sense of pride and bravado about engaging in illegal fishing. One disco net fisher interviewed compared their type of fishing with the small-scale fishing engaged in by others:

*Naanga ellarum alli edukura party, ondu rendu pidika virupamillai* [We are people who catch things in one scoop. We don't like catching one or two.] (Male, disco net fisher, Muslim)

It was clearly in the Muslim fishers' interest to continue employing illegal fishing methods, not simply because of the profits, but also because of their sense of pride in being considered 'large-scale fishermen' among their peers and within their

communities. Their moral universe did not categorise disco net fishing as ethically immoral.

There was an acceptance of this fishing method among numerous Muslim fishermen and in society, including the mosque leaders, at least in Muslim-dominated areas like Kinniya. In fact, these fishers had the support of the mosques in the area, something that became apparent when we asked how they continued to use the disco net when it is against the law. The mosque leaders had spoken to the Department of Fisheries officers in Trincomalee on behalf of the fishers.

Those who opposed the practice viewed it through a lens of economic injustice, as over-exploitation of a resource that should not only be shared among the present generation of fishers but sustained for future generations as well. There is a clear clash of moral values in this instance. Attempts at regulation will be futile if the authorities fail to consider the moral position of Muslim illegal fishers and the support that the fishing activity has gathered at the local community level.

The powerful discourse that it is Muslims who engage in illegal fishing generates a sense of exclusion towards them and a corresponding cohesiveness among Tamil and Sinhala fishers (similar to effect of shared religious beliefs and rituals between the latter). This claim is strengthened by the discourse about consuming beef. In Sri Lanka, for religious reasons, a majority of Hindus and Buddhists choose to abstain from consuming beef. In the recent past, there has been a strong anti-beef consumption movement, spearheaded by a group of extremist Buddhist monks in the south. The tensions in Trincomalee reflect anti-Muslim sentiments seen throughout Sri Lanka—but especially in the South—that have resulted in a sense of isolation and oppression felt by Muslims in coastal communities. Further, the tendency of Muslims in eastern Sri Lanka to establish an exclusive identity based on Islam, clearly disconnected from Hindu practices (Hasbullah and Korf 2013; McGilvray 1998), partially explains the group identity dynamics developing in coastal Trincomalee.

## 11.8 Conclusions

This chapter has attempted to build understanding regarding the different value systems that apply to fishermen in their day-to-day practices and interactions with individuals belonging to other identity groups and within their own community. We were especially interested in understanding how these processes shape the moral economy of fishing in Trincomalee. At the individual level, religion takes a central place in a fisher's life, irrespective of their specific faith. Given the constant dangers to assets and lives, fishing as an occupation is profoundly shaped by religious beliefs and religious morality at the individual and family levels. This sense of risk was heightened during the civil war, when fishers not only pitted themselves against nature; they faced risks to life and equipment at the hands of both the Sri Lankan military and the LTTE. In light of these threats, turning towards the supernatural was common. However, individual and communal struggles to decide between

contradictory economic and religious values were also an ever-present aspect of the fishermen's religiosity. We found this process to be marked by rationalising and meaning making, embodied through the daily living experiences of these fishermen.

At the community level, although there are complex, historical tensions between all of the religious groups in Trincomalee, Hindus and Buddhists share considerable religious complementarity despite heightened tension and violence during the war years. Muslims are increasingly marked as separate—in spaces of religious ritual, such as the Hindu temples, and likewise in fishing livelihoods. Most Muslims also see themselves as separate.

At the individual level, there are interesting patterns of meaning making carried out by fishers that are shaped by their religious values. For Hindu fishermen, even though their role commitments as patrons of the Hindu *kovil* comes at a financial cost, they see this as compensated by the boost to their subjective religious identity and status within their community, as well as the protection it provides. Certain religious or philosophical doctrines, such as Buddhism, do not readily lend themselves to fishers' need to seek divine sources of protection or material benefits. Consequently, Buddhists borrow from Hinduism when they feel that the primary religious teachings they follow are inadequate to serve their needs. Nevertheless, this borrowing does not imply the abandonment of their own religious or ethnic identity to embrace the alternative religious doctrine in its totality. Rather, people take advantage of the malleable nature of seemingly static religious doctrine to mix, match and choose what suits the need and the occasion. Like Hindus, Muslim fisherfolk sometimes seem willing to compromise economic gain for religious values: They sell fish at lower rates in the small auction managed by the mosque rather than earning greater profits in the larger nearby wholesale market with higher demand and more competitive prices. However, in other instances, Muslim fishers choose to compromise their religious obligations for economic activities. An example of this is foregoing Ramadan fasting in the interest of generating an income by continuing to engage in fishing, rationalising this practice on the basis that they enable their families to fast by providing for them financially. In sum, fishermen engage in a form of forum shopping, borrowing from different economic and religious value systems and providing justifications for their decisions.

However, religious beliefs and ideology also create and sustain socio-political differences, which are further constructed by macro-level political discourses. Our analysis of the daily lived experiences of fisher communities in coastal Trincomalee has revealed the potential imprint that national-level discourses can have at the individual and community levels. The moral economy of fishing, therefore, is not only about how fishers seek to reconcile their economic activities with their moral values, but also how religious ideology generates socio-political differences and relations based on those differences.

In terms of fisheries governance, managers need to recognise and understand the role of religion and value systems in shaping the moral economy of fishing, as well as the processes by which religious beliefs and ideology can create and sustain social cleavages. Fisheries managers' interventions to reduce illegal fishing, for

example, will be more effective if they recognise that illegal fishing is motivated not only by the interest in short-term profit, but also by the sense of pride, value and identity that fishers attribute to it. A phasing out plan for disco net fishing, therefore, would necessitate greater sensitivity to the diverse values that underpin this practice. A lack of understanding or ignorance of these micro- and macro-level processes may result in fisheries regulatory policies that deepen existing social cleavages. This outcome would be detrimental not only to the fisheries as a livelihood, but also to the broader issues of social cohesion and the resolution of community tensions. Given that Sri Lankan society is still emerging from tensions and mistrust created by the three-decade civil war, directing attention towards rules and processes that fuel instead of contain such issues is of paramount importance.

## References

- Acheson JM (1981) Anthropology of fishing. *Annu Rev Anthropol* 10:275–316
- Bastians D, Harris G (2014). Buddhist–Muslim unrest boils over in Sri Lanka. *The New York Times* (New York edition), Jun 17, A7
- Biggart NW, Beamish TD (2003) The economic sociology of conventions: habit, custom, practice, and routine in market order. *Annu Rev Sociol* 29:443–464
- Booth WJ (1994) On the idea of the moral economy. *Am Polit Sci Rev* 88(3):635–667
- Brown TC (1984) The concept of value in resource allocation. *Land Econ* 60(3):231–246
- Brown S (2008) *Religion and fisheries management in coastal North Carolina* (unpublished doctoral dissertation). Duke University, Durham/NC
- Chan KMA, Satterfield T, Goldstein J (2012) Rethinking ecosystem services to better address and navigate cultural values. *Ecol Econ* 74:8–18
- Cheal D (1988) The ritualization of family ties. *Am Behav Sci* 31(6):632
- Collet S (2002) Appropriation of marine resources: from management to an ethical approach to fisheries governance. *Soc Sci Inf* 41(4):531–553
- Dahlke P, Silācāra B, Oates LR, Lounsbury GC (1963) *The five precepts*. Buddhist Publication Society, Colombo
- Department of Census and Statistics-Sri Lanka. (2016). *Census of Population and Housing of Sri Lanka, 2012*. <http://www.statistics.gov.lk/PopHouSat/CPH2011/Pages/Activities/Reports/District/Trincomalee/A36.pdf>. Accessed 13 Jun 2016, Jun 13
- De Silva KM (2005) *A history of Sri Lanka*. Vijitha Yapa Publications, Colombo
- Frerks G, Klem B (2005) Dealing with diversity: Sri Lankan discourses on peace and conflict. Netherlands Institute of International Relations ‘Clingendael’, The Hague
- Gatewood JB, McCay BJ (1990) Comparison of job satisfaction in six New Jersey fisheries: implications for management. *Hum Organ* 49(1):14–25
- Gombrich R, Obeyesekere G (1988) *Buddhism transformed: religious change in Sri Lanka*. Princeton University Press, Princeton/NJ
- Government of Sri Lanka (2009). *Peace and conflict timeline* <http://pact.lk/>. Accessed 16 Sept 2016
- Gravers M (2015) Anti-Muslim Buddhist nationalism in Burma and Sri Lanka: religious violence and globalized imaginaries of endangered identities. *Contemp Buddh* 16(1):1–27
- Gupta R (2003) Changing courses: a comparative analysis of ethnographies of maritime communities in South Asia. *MAST* 2(2):21–38
- Hasbullah S, Korf B (2013) Muslim geographies, violence and the antinomies of community in eastern Sri Lanka. *Geogr J* 179(1):32–43



- Heslop LA (2014) On sacred ground: the political performance of religious responsibility. *Contemp South Asia* 22(1):21–36
- Hollingsworth JR (2006) Introduction to part II: the moralization of the market in theoretical context. In: Stehr N, Henning C, Weiler B (eds) *The moralization of the markets*. Transaction Publishers, New Brunswick\NJ, pp 101–108
- Houtart F, Nayak N (1988) *Kerala fishermen: culture and social organisation*. Centre D'Analyse Sociale de la Culture, Louvain-la-Neuve
- Jayawardena K (1970) Economic and political factors in the 1915 riots. *J Asian Stud* 29(2):223–233
- Jentoft S, Chuenpagdee R, Bundy A, Mahon R (2010) Pyramids and roses: alternative images for the governance of fisheries systems. *Mar Policy* 34(6):1315–1321
- Kinniya Divisional Secretariat (2013). [http://www.kinniya.ds.gov.lk/index.php?option=com\\_content&view=article&id=4&Itemid=63&lang=en](http://www.kinniya.ds.gov.lk/index.php?option=com_content&view=article&id=4&Itemid=63&lang=en). Accessed 21 May 2016
- Kurien J (1995) The Kerala model: its central tendency and the outlier. *Soc Sci* 23(1–3):70–90
- Lanka Newspapers (2013). Suicide Buddhism [http://www.lankanewspapers.com/news/2013/5/83062\\_space.html](http://www.lankanewspapers.com/news/2013/5/83062_space.html). Accessed 13 May 2016
- Lawrence P (1997). *Work of oracles, silence of terror: Notes on the injury of war in eastern Sri Lanka* (unpublished doctoral dissertation). University of Colorado, Boulder\CO
- Leach ER (1954) *Political systems of highland Burma: a study of Kachin social structure*. Bell, London
- McGilvray DB (1998) Arabs, moors and Muslims: Sri Lankan Muslim ethnicity in regional perspective. *Contrib Indian Soc* 32(2):433–483
- McGilvray DB (2008) *Crucible of conflict: Tamil and Muslim society on the east coast of Sri Lanka*. Duke University Press, Durham
- Meillassoux C (1981) *Maidens, meal and money: capitalism and the domestic community*. Cambridge University Press, Cambridge
- Ministry of Fisheries and Aquatic Resources Development. (2015). *Fisheries statistics* <http://www.fisheries.gov.lk/content.php?cnid=ststc>. Accessed 17 Jan 2015
- Näre L (2011) The moral economy of domestic and care labour: migrant workers in Naples, Italy. *Sociology* 45(3):396–412
- Nash M (ed) (1966). *Anthropological studies in Theravada Buddhism* (cultural report series no. 13). Yale University Southeast Asia Studies, New Haven
- Pfaffenberger B (1979) The Kataragama pilgrimage: Hindu–Buddhist interaction and its significance in Sri Lanka's polyethnic social system. *J Asian Stud* 38(2):253–270
- Polanyi K (1957) *The great transformation: the political and economic origins of our time*. Beacon Press, Boston
- Ram K (1991) *Mukkuvar women: gender, hegemony and capitalist transformation in a south Indian fishing community*. Zed Books, New Delhi
- Santiago M (2015). Protesting Trincomalee fishermen obstruct Pulmoddai road. *News 1st*. <http://newsfirst.lk/english/2015/08/protesting-trincomalee-fishermen-obstruct-pulmoddai-main-road/108249>. Accessed 21 May 2016
- Sayer A (2004). *Moral economy*. Department of Sociology, Lancaster University. <http://www.comp.lancs.ac.uk/sociology/papers/sayer-moral-economy.pdf>. Accessed 16 Sept 2016
- Scott JC (1976) *The moral economy of the peasant: rebellion and subsistence in Southeast Asia*. Yale University Press, New Haven
- Silverstone R, Hirsch E, Morley D (1992) Information and communication technologies and the moral economy of the household. In: Silverstone R, Hirsch E (eds) *Consuming technologies: media and information in domestic spaces*. Routledge, London, pp 115–131
- Smith A (1965) *An inquiry into the nature and causes of the wealth of nations*. Modern Library, New York
- Southwold M (1978) Buddhism and the definition of religion. *Man* 13(3):362–379
- Spencer J, Goodhand J, Hasbullah H, Klem B, Korf B, Silva KT (2014) *Checkpoint, temple, church and mosque: a collaborative ethnography of war and peace in eastern Sri Lanka*. Palgrave MacMillan, London

- Stewart JJ (2014) Muslim–Buddhist conflict in contemporary Sri Lanka. *South Asia Res* 34(3):241–260
- Stirrat RL (1988) *On the beach: fishermen, fishwives, and fishtraders in post-colonial Lanka*. Hindustan Publishing Corporation, Delhi
- Stryker S, Burke PJ (2000) The past, present, and future of an identity theory. *Soc Psychol Q* 63(4):284–297
- Stryker S, Serpe RT (1982) Commitment, identity salience, and role behavior: theory and research example. In: Ickes W, Knowles ES (eds) *Personality, roles, and social behavior*. Springer, New York, pp 199–218
- Swartz D (1996) Bridging the study of culture and religion: Pierre Bourdieu’s political economy of symbolic power. *Sociol Relig* 57(1):71–85
- The Asia Foundation (2011) *The National Values Survey: Sri Lanka 2011*. The Asia Foundation, Colombo
- The Asia Foundation (2016) *Sri Lanka strategic assessment 2016*. The Asia Foundation, Colombo
- Thompson EP (1971) The moral economy of the English crowd in the eighteenth century. *Past Present* 50(1):76–136

**Gayathri Lokuge** is a Senior Researcher attached to the Centre for Poverty Analysis, in Colombo-Sri Lanka and a PhD candidate at Wageningen University, the Netherlands. Her broad research interests include livelihoods (especially in fisheries), post-war development, gender, and masculinities studies. Her geographic research focus is in the war affected North and East of Sri Lanka and her current research, primarily through her PhD, focuses on attempting to understand how overlapping identities of coastal people shape their livelihood activities and, in turn, how livelihood activities shape peoples’ identities in the aftermath of war.

**Mohamed Munas** is a Senior Researcher at the Centre for Poverty Analysis, in Colombo-Sri Lanka and a PhD candidate at Radboud University, the Netherlands. His research interests include poverty, conflict, fisheries, migration, and diaspora. His geographic research focus includes the war affected north and east of Sri Lanka, and Sri Lankan diaspora host countries such as Australia and the UK. His current research focuses on shifting diasporic engagement in post-war development.

# Chapter 12

## History and Social Difference in Arguments for the Societal Values of Small-Scale Fisheries in Gujarat, India

Derek S. Johnson, Rajib Biswal, and Jyothis Sathyapalan

**Abstract** In this chapter, we wrestle with the question that motivates this book: how to value small-scale fisheries? We do so in relation to an empirically rich case, the small-scale fishery of Gujarat, India. Our investigation of historical and social relational factors influencing the Gujarat fishery reveals the complexity of the notion of value. The fishery of Gujarat State is large, economically significant, internally diverse, and complex in organization and practice. Yet, even in comparison to other marginalized small-scale fisheries, Gujarat's small and large scale fisheries are peripheral to the consciousness of most Gujaratis. We reflect on how the predominant value orientation of Gujarat has shaped its fisheries' historical development and led to significant ecological and social contradictions in them. We argue that social wellbeing provides a productive analytical framework for understanding value in the Gujarat small-scale fishery in relation to history, social positionality, and scale. Our ethnographic evidence draws particularly on the researchers' familiarity with two small-scale fishing harbours to explore how fishing articulates with caste, religion, class, gender, and history.

**Keywords** Assigned and held values • Social wellbeing • Gujarat • Fisheries governance • Disvalue • Social positionality

---

Julie Urquhart, Tim Acott and Natasha Stacey provided valuable comments on an earlier draft this chapter. We would like to thank Elizabeth Johnson for her editorial suggestions. We are grateful for funding from the Social Sciences and Humanities Research Council of Canada, the grant Too Big to Ignore: Global Partnership for small-scale Fisheries Research, the International Development Research Council of Canada, and the Faculty of Arts of the University of Manitoba.

D.S. Johnson (✉)

Department of Anthropology, University of Manitoba, Winnipeg, MB R3T 2N2, Canada  
e-mail: [derek.johnson@umanitoba.ca](mailto:derek.johnson@umanitoba.ca)

R. Biswal

Natural Resources Institute, University of Manitoba, Winnipeg, MB R3T 2N2, Canada  
e-mail: [biswalr@myumanitoba.ca](mailto:biswalr@myumanitoba.ca)

J. Sathyapalan

Centre for Economics and Social Studies, Hyderabad, India  
e-mail: [sjyothis@CESS.ac.in](mailto:sjyothis@CESS.ac.in)

## 12.1 Introduction

The objective of this book is to explore how social wellbeing can frame understandings of the values of small-scale fisheries in order to more effectively argue for their virtues. In this chapter we argue that social wellbeing strengthens arguments for the values of small-scale fisheries in two principal ways. First, we see social wellbeing as grounded in a relational approach to wellbeing that can be translated with considerable analytical force to ideas of value and, particularly, the fundamental distinction between held and assigned values. Second, in its attention to three dimensions of wellbeing, material, relational, and subjective, social wellbeing provides a framework for analyzing the diverse assigned values of small-scale fisheries. Our chapter applies these guiding ideas to the illuminating case of small-scale marine fisheries in the northwestern Indian coastal state of Gujarat (see Fig. 12.1). The case



**Fig. 12.1** Central and southern India with Gir Somnath District, Gujarat, highlighted

illustrates two key aspects of the intersection of social wellbeing and value in analyzing the contributions made by Gujarat's small-scale fisheries. Both of these aspects speak to the relationality of values highlighted by a social wellbeing perspective. The first aspect concerns relationality across scale: Gujarat's fisheries are distinctive for their extreme peripherality to Gujarat society. We argue that a broader societal context of vegetarianism has had a profound influence on the historical development of the fishery, and current state of resource depletion, and may also influence fishers' own self-perceptions of the value of their occupation (see also Armitage and Johnson 2006). Second, the Gujarat fishery is internally highly diverse, with small and large-scale sectors, variations in technologies and practices, and major social cleavages along lines of caste, class, gender, and religion. This context of social differentiation requires another kind of relational analysis: how social positionality affects perceptions of value in the fishery.

Our chapter builds its argument about the intersection of wellbeing and value by taking these two aspects sequentially, while recognizing that the first influences the second. In the first part of the paper, after a more extended theoretical introduction and an explanation of methodology, we substantiate our argument about scale and history. We note that fisheries development in Gujarat has prioritized material economic (or exchange) value over the social relational, subjective, cultural, and intangible values that that fishery affords. While this orientation is characteristic of Indian national fisheries policy (see Jadhav, this volume), we think there is good reason to believe this it has been heightened in Gujarat for cultural reasons. Consequently, in Gujarat, perhaps even more than elsewhere, it is urgent to bring out the diverse contributions made by its small-scale fisheries. This task is further complicated as the entire sector of fishing in the state also produces a range of dis-values, including ecological degradation or socio-economic inequality. These dis-values are important indications of structural problems in the fishery, the most serious of which has been a profoundly flawed fisheries governance regime. We argue that this governance problem, in turn, reflects the underlying cultural undervaluing of fishing in the state.

With reference to our research in two fishing harbours, we then add the second central thread of our paper regarding the fishery's socio-economic diversity. Using a social wellbeing lens, we examine how the relationships among the diverse actors involved in the fishery are driven by divergent and sometimes competing values and perspectives on the fishery. This positionality-sensitive perspective shows that values are partial and often signify latent or overt conflicts. The comparison of the two fishing harbours shows the place-specific diversity of experience that is an important part of the richness of the fishery and also a shared, though specifically manifested, experience of governance failure and concern about ecological degradation. Our positional analysis of values in the fishery deepens the historical development narrative of the first part of the paper, adds subtlety to the assessment of values in the Gujarat fishery, and highlights significant challenges for governance.

In the conclusion, we return to our broader argument about values in a discussion section that draws out the historical, cross-scale, social positional, and governance implications of the preceding sections. We argue that policy, cultural context, and

opportunity have converged over the recent history of the Gujarat fishery to prioritize production for exchange value over other values. This orientation has profoundly shaped social relations and subjective perceptions of the fishery, and reinforced a path dependency which has closed down possibilities for governance that targets a wider range of values.

## 12.2 The Embeddedness and Positionality of Values

Value is a complex and multi-dimensional concept, but a crucial one in relation to the political assertion that small-scale fisheries are socially undervalued and deserve greater respect and support. A common distinction in value theory is between held and assigned values. The former are contextually-specific “principles or ideas that are important to people” (Lockwood 1999: 382). Held values are normative reference points, often clustered in particular value orientations such as environmentalism (Seymour et al. 2010), that people draw on when making choices. Assigned values are attributions of benefit or importance that people give to aspects of their environments. Assigned values may be divided further into instrumental values, or aspects of the environment that are important because they generate some other benefit (such as food), or intrinsic values in which the aspect of the environment is seen as important and necessary in and of itself. One effect of the idea of intrinsic value is that it provides a means through which the interests of non-human actors may be recognized regardless of whether their existence provides any benefit to humans.

Held and assigned values are reciprocally related: how we assign value to things, whether tangible objects, new ideas, or behaviours, emerges from the held values that constitute our value orientations in conjunction with our experience and our social relations. Our argument recognizes the dilemma highlighted in the introduction to this volume that, for political reasons, it is often necessary to emphasize the material assigned values of small-scale fisheries, particularly income, employment, and food security contributions, when we seek to defend them. Yet, doing so alone is inadequate, and indeed potentially even misleading and dangerous as it threatens to instrumentally reduce small-scale fisheries to just another producer of commodities or jobs to contribute to national economies. Small-scale fisheries are valuable for much more than that, and strategic political arguments for their material contributions should lead into discussions of their other values, including intangible ones, such as their subjective, relational, and intrinsic values that give space for small-scale fishers to pursue livelihoods that are meaningful to them in their own terms.

The social wellbeing approach provides a framework for productively wrestling with the tension between held and assigned values through relationality and the identification of material, relational and subjective dimensions of wellbeing. The three key dimensions of wellbeing reflect a categorization of core needs that humans need to live well (Gough et al. 2007). We require the satisfaction of our material requirements such as food, shelter, and health care; the meeting of our needs for

supportive and fulfilling social and social-ecological relations; and a sense that we are attaining individual and collective norms defining an appropriate or good life. But, as White (2010; White and Ellison 2007) makes clear, the three dimensions are not discrete from one another but, rather, are relationally co-constitutive of wellbeing (or relative illbeing). Thus, for example, subjective perceptions of how well one is doing are formed in social relationships while material achievement is judged according to shared cultural standards. Wellbeing is not a state, but rather a process that occurs in relation to others and the environment, and in relation to ideas of success and failure.

Held values from the social wellbeing perspective can thus be seen as subjective perceptions of what is right and good that are constituted by, and subject to, historically and situationally-specific social and social-ecological relations. Assigned values, equally, are political expressions of the value of material and other aspects of the environment in that they reflect particular held ideas of value, formed in historically particular social relations.

For us, the social wellbeing approach makes a philosophical claim about the human condition that has numerous implications familiar to a constructivist social science perspective. Of these implications, the following inform our analysis of value in this paper:

1. Human wellbeing is relational: our subjective perceptions of material satisfaction and achievement (what we value) are measured in relation to how others around us are doing (Coulthard et al. 2011; Deneulin and McGregor 2010). Our perceptions of what is necessary for material wellbeing are also culturally specific. Thus a person may be dissatisfied even when their needs appear to be reasonably well met because of negative comparisons with others or with perceptions of unattained cultural consumption values.
2. Relationality presupposes attention to the social differences that characterize human societies. In a fisheries context, it illuminates the collaborations and tensions that exist among actors in a fishery, and between them and their environment, as they seek to extract material benefits and satisfy the subjective values the fishery provides. With regard to human-environment relations, relationality shares a similar analytical foundation with co-constructionist approaches (Acott and Urquhart, this volume) and Viveiros de Castro's multi-naturalism (1998; cited in Cruikshank 2012).
3. Building on the previous point, relationality recognizes that fisheries are comprised of people in different subject positions, or standpoints (Harding 1992). Relationality suggests that these positions are associated with different, competing, and sometimes mutually incompatible, notions of value in a given fishery. Consequently, there is always a latent or overt value politics at play in fisheries that necessarily predisposes questions of governance about how trade-offs are made (Coulthard 2012), or ignored.
4. Fourth, the relationality of social difference and divergent values is a driving force behind change as different actors and groups ally with each other and compete for various material and social goods.

5. These relational implications of the social wellbeing approach help us move towards a more robust understanding of the notion of value that can inform governance. Specifically, through its attention to the positionality and change inherent in the diversity of values in a given place, it adds analytical weight to the idea of governance as a wicked problem, where interventions are necessarily a messy compromise between competing interests of those who may have very different readings of a problem, interventions are subject to the dynamics of power in a given social context, interventions have unintended consequences, and interventions may add further layers of complexity to a problem (Jentoft and Chuenpagdee 2009).

In the terms of interactive governance theory (Kooiman et al. 2005), social wellbeing shows the diversity, complexity, and dynamics of held and assigned values in small-scale fisheries. By this, we mean that social wellbeing provides an analytical lens to bring out the historically, culturally, and spatially situated complex social relations that characterize particular fishing places and links these to how features of social and social-ecological environments are made valuable. Social wellbeing, in other words, is a pathway to understanding particular moral economies of fishing (Lokuge, this volume, cf. Fischer 2014; St Martin 2007) in which different actors and groups who make value-based claims to or about the fishery. The dynamic relationships among actors in the fishery are themselves productive of new values, but also may result in negative ecological or social consequences, or disvalues.

### 12.3 Note on Methodology and Data Sources

Analysis of the values of the Gujarat small-scale fishery has to face the challenge of the fishery's scale. The Gujarat fishery directly supports more than 330,000 people and generates more than half a billion dollars in revenue annually. We cope with this challenge in one way pragmatically by limiting our scope to the coastline of what is now Gir Somnath and Junagadh districts (see Fig. 12.2),<sup>1</sup> with a focus on the two fishing harbours of Dhamlej and Saiyad Rajpara. While these are not representative of the entire Gujarat fishery, the contrast between them and the diversity within them still allows us to speak of crucial dynamics within the fishery. We bridge to the larger fishery through reference to complementary district and state-level data.

The data that we draw on in this chapter come from two sources that require background explanation in order to clarify an important limitation to our argument. Our paper draws on research conducted for different purposes at different times. Our macro-level observations about the material contributions of the Gujarat fishery and some of the data on Dhamlej come from a study of legal pluralism in Junagadh

---

<sup>1</sup>The research on which this paper is based was initially framed by the coastal extent of Junagadh District. In 2013, Junagadh was split into two. The new Gir Somnath District is comprised of the bulk of the old coastal area of Junagadh, and small area around Mangrol, which was retained by the reduced Junagadh District.



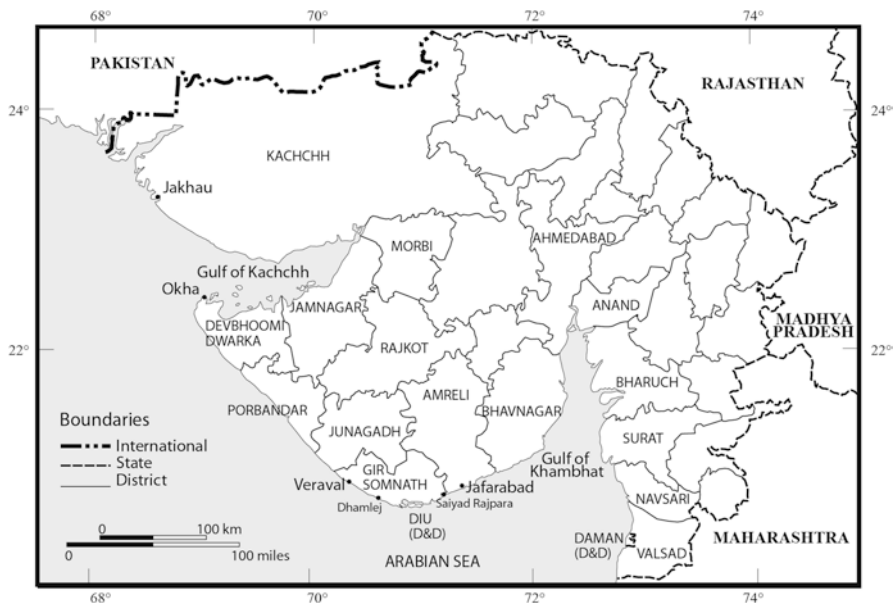


Fig. 12.2 Coastal districts of Gujarat State and research locations

District conducted jointly by Johnson, an anthropologist, and Sathyapalan, an economist, in 2004–2005. Other data on Dhamlej and observations about the Gujarat fishery derive from earlier research in 1997–1998 undertaken by Johnson on the history of the Gujarat fishery’s development since the 1950s. Data for both of these studies came from a combination of intensive ethnographic engagement, semi-structured interviews, and survey research. Neither of these research projects was framed in terms of social wellbeing or values theory, so our observations in this paper represent an exercise in re-analysis of our data. In some instances, we can speak relatively confidently of particular values or trends in the fishery, but our interpretations should be regarded as, to an important degree, hypothetical. We also recognize that our findings require a follow-up study to validate them for the current time period.

Our observations on Saiyad Rajpara, however, do offer a current look at one fishing port along the same stretch of coast, as Biswal did ethnographic field work under Johnson’s supervision in Saiyad Rajpara in 2014. He undertook 4 months of qualitative research in the village, which included participant observation and 69 semi-structured interviews. From Biswal’s research, we have a vantage point from which to assess trends observed in our earlier work, such as confirmation of ongoing resource depletion and governance failure. Biswal’s research also has the advantage of having been framed explicitly in relation to social wellbeing theory and ideas of values and we are thus able to speak more precisely about these themes in relation to Saiyad Rajpara, as no re-analysis of data is required. As will be evident from the

reporting of findings on Saiyad Rajpara, Biswal's research had a much more deliberate gender emphasis than that of Johnson and Sathyapalan.

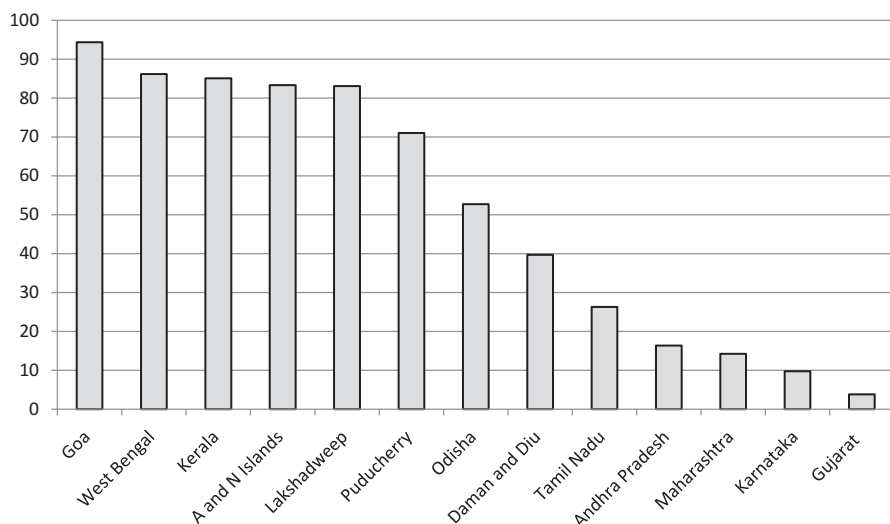
## **12.4 Values in the Gujarat Fishery**

The translation of our arguments about value into our interpretation of our data requires some introduction. Our strategy is to move from macro scale to micro: we begin by talking in very broad terms about the reasons to believe that ambivalent perceptions predominate with regard to fishing in Gujarat. We then counter these perceptions by presenting macro-level data that can be used to argue for the assigned values of the Gujarat fishery but then argue that these contributions have been at best partly recognized in Gujarat, which we believe accounts for the particularly intense productionist form that development has taken in the fishery. We then turn to our two fishing harbour case studies. We organize these according to a three dimensional social wellbeing logic, which we suggest gives us a framework to organize the values (and disvalues) of the two fisheries. This framing of the assigned values, or contributions, of Gujarat's small-scale fisheries is cross-cut by an implicit relationality of held and assigned values, particularly through the idea of social positionality, that we then make explicit in the conclusion as we reintegrate the threads of our substantive and theoretical arguments.

With regard to our two case studies, we argue that their small-scale fisheries have provided a robust basis for the steady growth and flourishing of sizeable populations. On this economic basis alone the fishery generates considerable assigned value. In addition, however, the fishery also supports distinct and vibrant sub-cultures and associated social relations, and makes direct contributions to the subjective wellbeing of its participants. At the same time, there are large and intractable material, relational, and subjective challenges (and, sometimes, disvalues) in the fisheries that threaten their survival and the wellbeing of their populations. Social wellbeing analysis thus brings out the assigned values in the two fisheries, and contradictions within and among them, that point to crucial governance challenges that must be addressed if the fishery is to continue to thrive.

### ***12.4.1 The Held Value Context***

A first key consideration to recognize in terms of the held value context of the Gujarat fishery is the distinctive cultural milieu in which the fishery is situated. A striking characteristic of fisheries in South Asia is the variability of their local importance. In areas like Kerala, Sri Lanka, and Bangladesh and West Bengal, fish are nutritionally and culturally central to diets and fisheries are a recognized part of the economic landscape. Gujarat stands at the other extreme from these major fish consuming regions. It is a significant producer, typically first or second in India's



**Fig. 12.3** Proportion of the population consuming fish by coastal Indian State or Union Territory (Source: Indian Handbook of Fisheries Statistics 2014)

national marine fish production standings, but in terms of consumption and cultural orientation towards fishing, it is an outlier. Figure 12.1 shows data on fish consumption of all coastal states and Union Territories in India. As the figure indicates, Gujarat is exceptional in the low proportion of its population that consumes fish. In terms of consumption by weight per person, the state is also the lowest ranking of all maritime states. On both measures, indeed, it consumes only slightly more fish than the 6 least fish consuming states and union territories in India, several of which are in the Himalayas (Fig. 12.3).

The explanation for Gujarat's anomalous fish consumption position lies in the strong prevalence of vegetarianism in the state. According to a poll conducted in 2006 by *The Hindu*, 45% of Gujarat is identified as vegetarian (Yadav and Kumar 2006) a culturally dominant ethical orientation that any longer term visitor to Gujarat will rapidly remark on. Gujarat's vegetarianism is markedly higher than other coastal states in the country and, again, only a few inland states such as Rajasthan, Haryana, and Punjab show higher proportions of non-meat eating in their populations (Yadav and Kumar 2006).

Vegetarianism is thus an important value orientation in Gujarat. It is made all the more powerful by its particular prevalence among the Hindu middle and upper class and caste groups who dominate Gujarat society, politics, and economy. As we have argued elsewhere, conjecturally, we believe that the preponderant ethic of vegetarianism has had important repercussions for fisheries management in the state (Armitage and Johnson 2006; Sathyapalan and Johnson 2008; Johnson and Bavinck 2010). Namely, it is at least part of the explanation for the disconnection that exists between most Gujaratis and the coast and the marine fishing sector. Unlike other

parts of India, and places like Kerala in particular, where coastal activities and livelihoods including fishing have significant visibility, the coast and fishing in Gujarat are distant from the lives of most Gujaratis. Indeed, one might almost say that the vegetarian and, historically, the agricultural orientation of Gujarat society meant a turning away from the sea and the coast. One indication of this was the historical injunction against travel overseas for upper caste Hindus in Gujarat that was prevalent even in Gandhi's time for his Modh Bania caste (Gandhi 2002 [1927]). One of the lingering effects of this landward orientation is that the coast in Gujarat has not had the positive association and value so common in other parts of the world. With some exceptions, like the temples of Somnath and Dwarka, and the holiday spot of Diu, much of the Gujarat coast is striking by the marked absence of residential or leisure developments that take advantage of its beauty.

Fishing is a particularly troubling activity from the point of view of a vegetarian morality and this surely explains why the occupation is practiced solely by low caste and Muslim groups in Gujarat. The largest caste group involved in fishing is the Kharvas, who dominate the most productive fishing centres in Gir Somnath, Junagadh and Porbandar districts (see Fig. 12.2). Our oral history reports provide evidence that they were historically treated as having untouchable status, although that has long since changed and they, and the related but distinct Koli Kharvas, have now raised their status, at least in economic terms. Other important fishing castes in our districts of focus are the Muslim Machhiyaras and the Hindu Ghediya Kolis, both of which are still considered low status. Each of these groups continues to maintain a sub-cultural identity, with distinctive dialects, caste-based institutions and histories, endogamous marriage practices, preferred fishing strategies, and some lingering differences in dress, particularly for women. Through our two case studies, we bring out specific expressions of the cultural values these attributes of these groups represent.

The social complexity of the fishery is intensified by other distinctions. Most obvious is the distinction between different craft and gear combinations, which we discuss in the next section. To an important degree, these different modes of fishing practice correspond to different caste groups. Kharvas and Koli Kharvas dominate the large-scale trawler sector, but also practice small-scale non-mechanized fishing. Machhiyaras and Ghediya Kolis largely engage in non-mechanized fishing, although some of the larger bag net fishing craft owned by Ghediya Kolis might better be identified with the large-scale sector. A second important distinction is the increasing presence of non-local fishers in Gujarat waters whose activities often conflict with local fishers. These external fishers most commonly come from the Mumbai area in Maharashtra, but in the past fishers from as far afield as Kerala came to Gujarat in pursuit of sharks.

### 12.4.2 *The Gujarat Fishery's Assigned Values*

In the Indian context, fisheries are broadly divided into mechanized and non-mechanized categories. Small-scale fisheries fall under the category of non-mechanized which, in contrast to the mechanized sector, generally employs relatively low horsepower engines for propulsion, smaller vessels, hand-powered gear, and goes for shorter fishing trips. In Gujarat, it is convenient to place trawler vessels and larger in-board motor gillnet and bag net vessels in the mechanized category while small in-board and outboard gillnetting and bagnetting operations can be placed in the non-mechanized category. This division is not perfect (see Jadhav, this volume) but is meaningful overall in distinguishing between small and large-scale types of fishing based not just on effort, but also on ecological impact and degree of commercial orientation. The trawler fleet has by far the highest intensity on both of the latter measures.

The Gujarat marine fishery is tremendously productive and resilient, and it is evident that it plays a significant role in generating material assigned values in terms of income, employment, livelihoods and food security of the non-mechanized small-scale fishing population. Since the late 1980s, state records show that it has consistently produced annual catches of greater than 500,000 tonnes. This high level of productivity is almost certainly an effect of the state's extensive continental shelf, and perhaps also its heavily indented coastline, the gulfs of which historically harboured exceptional marine biodiversity. Reflecting the state's preponderant vegetarianism and relative lack of local market, the fishery generates considerable export revenues. The estimated revenue for 2012–2013, for example, was roughly 530,000 million US dollars (Gujarat 2014).

In Gujarat, a large proportion of fishers (62,231 marine fishermen families with a total population of 336,181) is directly dependent on the marine fishery sector for livelihoods (Government of India 2010). Many of them are engaged in small-scale fisheries using both traditional and motorized fishing crafts. It goes without saying that fish play a significant role in the income, employment, livelihoods, and food security of these fishers. Based on our original 2005 data projected to 2016 at an annual growth rate of 2.6 percentage per annum, we estimate the total marine fish and crustaceans catch for Gujarat to be 653 thousand tonnes,<sup>2</sup> of which 352 thousand tonnes are from Gir Somnath and Junagadh districts together. This gives a value of 39.2 billion rupees at the state level, at an average 2014 price of 60 rupees per kilogram, or approximately \$US 663 million, a significant economic contribution by any reckoning. Gir Somnath and Junagadh districts are together the largest economic contributor to the fishery at 21.15 billion INR (Table 12.1).

The total landed quantity varies across fishing units, depending on the different craft and gear combinations. The dominant gears of the mechanized sector are trawl

---

<sup>2</sup>The total value of fish catch as estimated by the Gujarat Government is 695 thousand tonnes, which is more than the estimates we have arrived at using our primary data. For government data please see (<http://www.indiaenvironmentportal.org.in/files/file/handbook%20on%20fisheries%20statistics%202014.pdf>).

**Table 12.1** Material values of the fishery of Gir Somnath and Junagadh districts, Gujarat State

Particulars	Large scale	Small scale	Total
Quantity Landed (Tonnes)	241,626 (69)	110,943 (31)	352,569 (100)
Catch per Unit of Effort	427 <sup>a</sup>	177 <sup>b</sup>	412 <sup>c</sup>
Value Landed (In Billion Rs)	14.50	6.66	21.15
Primary Employment (in million Human days)	1.50 (41)	2.16 (59)	3.67 (100)
Secondary Employment (in million Human days)			6.2 (100)
Total Employment (in million Human days)			9.89
Average own consumption (in kgs)	40,468 (46)	46,605 (54)	87,073 (100)

Source: Based on Primary survey data, projected from 2005

Notes

Primary employment means employment in active fishing

Secondary employment indicates employment generated by the sector after landing fish

<sup>a</sup>Unit of effort is hours of hauling operations that are assumed to be 4 h a day for trawlers.

<sup>b</sup>Unit of effort is fishing trip since they are small vessels

<sup>c</sup>Catch per unit of effort is standardized with the value of dominant gear

Figures in parenthesis are percentage of raw total

nets and gill nets while non-mechanized (motorized and non-motorized) crafts primarily use gill nets. The contribution of the mechanized sector amounts to 241 thousand tonnes (69%), while it is 110 thousand tonnes (31%) for the small-scale motorized and non-motorized sector in Gir-Somnath and Junagadh districts. The small-scale fishery has a smaller share in total landings than the large-scale fishery, particularly that from trawlers, gillnetters, and bag netters. One important reason for the lower contribution of the small-scale sector is that its vessels operate near to the coast and their catch per unit of effort is low. Nevertheless, the contribution of the small-scale sector in terms of generating employment is significantly higher, which is evident in primary data that shows the small scale sector generates 2.16 million human days of employment in Gir Somnath and Junagadh districts as compared to 1.50 million human days in the large scale sector. The fishery sector also generates employment for many people, including non-fishers, in the fresh fish supply market, processing units, boat engine repair, net making, loading and unloading at various sites, sorting, drying, and fish sales in local retail markets. We estimated that such secondary employment comes to around 6.2 million human days in the two districts. The people working in these markets are poor and the majority are from the fishing population. As the small-scale sector appears to generate greater employment for poor fishers on the Gir Somnath and Junagadh coasts, this means that the role of the sector as a livelihood provider is quite significant as compared to its role as an income generator. The sector also supports the food and nutrition security of the poor living along the coast. Around 87,073 kilograms of fish is consumed by the fishing population directly, of which 54% (46,605 kilograms) is consumed by small scale fishers.

### 12.4.3 *The Gujarat Fishery's Development Trajectory*

From the earliest date at which Gujarat state catch records are available on an annual basis, 1961–1962, the fishery grew by about a factor of 10. Catches rose from 61,000 tonnes in that year until the 1990s when they plateaued at more or less their current level of 600,000 to 700,000 tonnes. One story of that growth is the successful generation of considerable economic value. Unquestionably, in material terms, fishers and their families saw a significant aggregate improvement in their material standard of living in that time period. The story has at least a couple of caveats, however. The direct material caveat is that for at least 20 years, fishers have been remarking on signs of ecological stress in the fishery (Johnson 2001) which appear to be intensifying, as we will discuss shortly in our case studies. Macro-level data strongly bear out local reports that overfishing is taking place (Bhathal 2014). A related caveat is that despite the clear economic benefits of the boom, other aspects of fisher material, relational, and subjective experience have not improved commensurately. The economic windfall of the successful economic development of the fishery, in other words, does not appear to have been particularly effective in more broadly improving the wellbeing of the fishing-dependent population.

In terms of private infrastructure, there is no question that the boom in the Gujarat fishery has been translated into material improvements. In rural areas, house construction has broadly shifted to more permanent construction, and ownership of a wide array of material goods from motorcycles to cell phones has grown dramatically. Public services have not kept pace, however, and there continue to major limitations in terms of sanitation, drinking water, educational facilities and quality, and health care provision, among others. Relationally, the intensification of fishing has not been matched by commensurate state leadership in fisheries governance. The Fisheries Department, indeed, is less proactive in terms of research, and has less capacity, than 20 or 30 years ago. Efforts to involve fishers more actively in governance have been notable by their absence. Without effective institutional coordination, therefore, the fishery has faced a *de facto* open access crisis that has been intensifying for at least 20 years. This crisis has been accompanied by recurrent conflicts between gear groups as they compete for limited resources. The subjective consequences of this mixed history of increased wealth but the lack of wide-ranging public investment in the sector has been a sense of increasing despair about the long-term viability of the fishery. Our survey results showed that in 2005, 52% of the fishing population indicated their pessimism about the future of the fishery by saying that they did not wish their children to work in the sector. Hindus were the more pessimistic, with 53% not wanting their children to continue in fishing; while 45% of Muslims felt that way. For the village of Saiyad Rajpara we have two data points, as Biswal asked the same question in his research in 2014. The comparison of responses for the two dates shows a dramatic deterioration in confidence about the future of the fishery, likely for the reasons we explain below. In 2005, 66% of fishers in Saiyad Rajpara wanted their children to continue in the fishery; in 2014 only 13% ( $n = 37$ ) wished that (Biswal et al. [forthcoming](#)).

This trajectory of boom and then crisis in fisheries is by no means unique to Gujarat. It exhibits a general pattern familiar in all parts of the world. Gujarat is distinct, however, in the degree of the gap between the economic value that the fishery has produced and the failure to convert that effectively into social goods and wellbeing for the population directly involved. To us, the at once extractive and neglectful approach to development and governance the marine fisheries in the state have experienced is explicable precisely because of the larger cultural context of vegetarianism in the state. Fisheries are a culturally peripheral and stigmatized sector in Gujarat, even more so than in other parts of the world. While production grew from the 1960s to 1990s, the revenues that it produced were welcome, but since growth peaked, the sector has suffered neglect. Another way of expressing this argument in the terms of this paper is that fisheries in Gujarat are seen as having instrumental economic value, but not intrinsic value.

#### **12.4.4 Saiyad Rajpara**

Saiyad Rajpara is a fishing village at the eastern edge of Gir Somnath district that has a population of over 6000 people, most of whom are members of the low status Gedhiya Koli caste (Koli for short). Historically, the Koli population was engaged in manual labour in agriculture and stone breaking. Food security was a major issue due to limited livelihood opportunities and the poverty of local agriculture. Life in the village underwent a major change after seasonal Machhi migrant fishers from South Gujarat introduced bag net fishing to the village approximately 70 years ago. Over the years, the entire village population has become directly or indirectly dependent on the fishery and the scale of the fishery has increased considerably. The bag net fishery now straddles the non-mechanized/mechanized divide. All boats are family owned, and crew are paid through a share system, but the large capacity and extended sailing time of the larger boats constitute an argument for putting them in the mechanized sector while the smaller boats would best be categorized as non-mechanized or small-scale. The fishery is organized along caste lines. Kolis predominate as boat owners and crew members. A few Muslims are crew members but the dominant profession for Muslims is the fish trade. Dalits are mostly involved in labour work such as the sorting and packing of dry fish and loading and transporting fish within the village. Since its introduction to Saiyad Rajpara, the bag net fishery has contributed enormously to the local economy but, after an economic boom in the early 2000s, the fishery is now showing increasing signs of ecological and social stress.

**Material Values in the Saiyad Rajpara Fishery** Materially, the bag net fishery in Saiyad Rajpara has contradictory effects that echo the larger pattern of fisheries development in Gujarat. The fishery has had clear material assigned values for the village and for the inhabitants of other nearby villages who work in the fishery or act as suppliers of materials and services to the fishery and to fishing households.



Food security is no longer a problem for village residents, and employment in the fishery has surged as boat numbers have increased. Between the early 2000s and 2014, boat numbers reportedly grew from 100 to 400. Fishers have a better standard of living than the past with concrete houses, motorbikes, and mobile phones. Many children from the village have access to better education in the nearby town of Una, which is more expensive than the local government school. The material conditions of work in fishing have also improved with the introduction of various technological innovations including nylon mesh nets, winches to haul in nets, and GPS units for the location of fishing grounds.

While the bag net fishery has had a major impact on the local economy by generating employment and stimulating business, the intensification of the local fishery has also resulted in overfishing and declining fish catches. That intensification has been driven by the increased commodification of fish; in the past 20 years the number of target species has grown and there has been a major shift in the fishery to higher value fresh fish from production of fish for the dried fish trade. This access to new market opportunities, coupled with incentives from fish traders, typically in the form of advance payments, has encouraged many fishers to adopt unsustainable fishing practices such as reducing the mesh-size of nets and harvesting egg-bearing fish. The recent adoption of high-frequency radios and GPS devices has enabled fishers to share the precise location of fish aggregations. The drastic increase in the number of boats has been accompanied by growing competition among local fishers for berthing spots and fishing locations at sea.

**Relational Values in the Saiyad Rajpara Fishery** The key axes of social relations in the village are gender, caste, economic status, and political organization. As the economic value of the fishery has increased over recent decades, there have been both positive and negative shifts in relational assigned values. Nonetheless, in recent years the trend is towards increasing social relational challenges in the fishery that in part can be traced to resource stress. In this regard, increasing competition among fishing operations is an indication of a larger coordination problem in the fishery that also includes local governance failure and ineffective relations with the Gujarat Department of Fisheries.

Consistent with fisheries in other parts of the world, fishing in Saiyad Rajpara depends on complementary work by men and women. While men do the actual fishing, women have the lion's share of domestic responsibility and provide crucial labour in dried and fresh fish processing. As the fishery has grown, so have employment opportunities for women, whose contributions to household income are valued. Another major change for women has taken place as the fishery has shifted away from dried to fresh fish, the processing of which takes less effort and time. Women have actually seen an easing of their time burden, in contrast to men, who have suffered the opposite. Women's financial independence has increased, as has their freedom of movement. These improvements in women's material status, however, have led a reduction in their age of marriage as parents increasingly seek to get them married at an earlier age in order to avoid unwanted pregnancies or elopements that they feel are a result of women's increased freedoms.

Discrimination on the basis of caste persists in Saiyad Rajpara despite the economic changes that have taken place there. Dalit villagers continue to be stigmatized and avoided by the higher ranking Kolis, and Dalits are not hired as crew. Relations between Kolis and Muslims, however, are cordial and collaborative, perhaps reflecting the relative economic importance of Muslims due to their leading role in the fish trade.

There is widespread recognition of the importance of good relations between boat owners and crew to motivate care for vessels and good catches. Despite the competition between Saiyad Rajpara boats at sea, an ethic of mutual assistance among all operators prevails in case of accidents. On shore, networks of friends or kin provide financial or technical help. Within last 10–15 years fish traders have come to play a key economic role in Saiyad Rajpara in opening up new markets for fresh fish. Following the classic patron-client model in fisheries, they provide advance credit to boat owners (Johnson 2010) and, in return, boat owners are expected to sell the traders their entire catch until their debt is paid off. These arrangements create some resentment among fishers as they get less than the full landed price for their catches. The arrival of the traders triggered the major increase in the number of boats in Saiyad Rajpara and intensified the pace of work. Boat owners feel pressure from fish traders and have pushed their crew to work harder and forgo the leisure time that was previously available. The frequency and length of trips have increased considerably within the last decade and breaks between trips have shrunk. While crew members are happy with the income their work brings, their quality of life has diminished significantly as the intensity of work has increased.

Despite these new pressures, relations with fish traders are in general good and communications are direct. This is contrast with fisher satisfaction with what we label elsewhere as the mixed-regime governance that prevails in the fishery of village (Biswal et al. in press). Mixed-regime governance is the coexistence of multiple actors with different interests in how a fishery is governed. In Saiyad Rajpara, this refers to the intersection of local fisher institutions oriented primarily to managing social affairs, fish traders with economic interests, and the state government Fisheries Department that has promoted fisheries development and has a mandate for environmental sustainability. The problem for fishers is that these different actors have different levels of capacity, have different logics of operation, and relate to each other poorly. Together, they have proved to be ineffective at resolving various fishing related issues. The most important relational disvalues are the inability to constrain the growth of fishing effort in Saiyad Rajpara and the increasing threat of outsider fishing vessels coming into the village's traditional waters. The problem is made particularly acute for fishers as, in recent years, due to internal conflict, the Koli community has failed to appoint a caste leader, or *Patel*, a position that historically was central to coordinating relations among village residents and managing relations with outsiders. This has prevented the community from taking a more proactive stance with regard to fisheries governance issues that threaten collective wellbeing.

**Subjective Values in the Saiyad Rajpara Fishery** The importance of fishing to the lives of the residents of Saiyad Rajpara makes it central to their perceptions of subjective wellbeing. How fishing is subjectively assigned value, however, is not uniform from person to person and the impacts of recent changes in fishing practices have influenced fishers' perceptions. With expanded market opportunities as a result of the arrival of fresh fish traders, and diversification of species caught, fisher satisfaction with their material wellbeing has increased overall, although this pattern is not uniform. In recent years, women's satisfaction with the fishery generally has been greater than that of men. The intensification of men's work and growing competition, their sense of exploitation by traders, and their awareness that the commodification of fishing is increasingly driving environmental depletion are causing dissatisfaction. They are also frustrated the fishery's governance problems. While women are also affected by these problems, their immediate working conditions have improved in recent years as fresh fish has increased in importance. Women also greatly appreciate the independence that their processing work brings.

Consistent with the place-based approaches of Acott and Urquhart and White in this volume, rich fishing heritage also shapes the identity of Saiyad Rajpara as a place and the distinctive and vibrant Koli culture of Rajpara. Fishing culture is reinforced through the presence of vividly coloured boats and fishing gear, wall murals of Goddesses, rituals performed at the start of the fishing season, and compulsory holidays from fishing during major festivals and a month-long wedding season. Further, many fishers adhere to beliefs about fishing practice in order to avoid risk such as the banning of alcohol and leather shoes aboard fishing boats.

Economic change in the bag net fishery of Saiyad Rajpara has improved the standard of living for the local population but those gains are increasingly threatened by the impacts of commodity-oriented development in the fishery. Stiff competition from local and outsider fishers and declining fish catches have caused frustration and dissatisfaction and are also possibly beginning to threaten social bonds within the village. A summary illustration of this is that only 46% of fishers ( $n = 37$ ) are happy with the profession and 76% ( $n = 37$ ) fishers do not want their children to pursue the family occupation.<sup>3</sup>

### 12.4.5 *Dhamlej Bandar*

Dhamlej bandar is a fishing harbour with an estimated population of 4130 residents.<sup>4</sup> Oral history suggests that its first permanent residents settled there in about the 1940s, although it was quite possibly visited by migratory fishers earlier than that. The village is divided spatially into a larger Hindu area to the east and a smaller

<sup>3</sup>As noted above, only 13% of respondents want their children to continue in fishing. Another 11% said that they were ambivalent about their children continuing to work in the sector.

<sup>4</sup>This figure is an extrapolation based on two censuses of the bandar population in 1998 and 2005. Bandar is the Gujarati word for harbour.

Muslim area to the west. Hindus are about 75% of the population. Each religious group is further split by caste and sub-caste. Ghoghaliya Kharvas are the largest Hindu sub-caste, alongside Kharvas, and Koli Kharvas; Machhiyaras are the largest Muslim caste (for more detail see Johnson and Sathyapalan (2006)). Even more than Saiyad Rajpara, fishing is the basis of the economy of Dhamlej bandar, with only one person in the entire bandar employed outside of fishing in 2005.

The fishing practices of Hindus and Muslims are similar. All are engaged in small-scale fishing using outboard motor powered fiberglass canoes (IBMs) of 22–36 feet in length. The longer vessels undertake multi-day fishing trips of up to a week and travel much greater distances. The shorter vessels are typically used for short or overnight local fishing trips. The primary gear used is gillnets of a variety of types.

**Material Values in the Dhamlej Fishery** As with the Gujarat fishery as a whole, the small-scale fishery of Dhamlej has grown greatly. While catches in the fishery of the bandar had plateaued by the 1990s, boat numbers continued to grow. Between 1998 and 2005, they grew from 462 to 525 to the point where there is simply no additional room on the beach to land more boats.

The sheer growth in the number of boats is an indication of the material assigned value that fisheries development has brought. These material improvements are evident more broadly in the lives of the bandar's population. In comparison with the neighbouring agriculturalists of the main village of Dhamlej, fisher households have greater cash flow, fisher houses are more consistently of good quality and fishers appear both better nourished and to have a wider array of possessions.

There is a reverse side of the story, however, that has to be set against the positive material impacts of fisheries development in Dhamlej. The first aspect of this is a set of public welfare inadequacies in the bandar. These include inadequate fresh water supply, poor quality primary school and primary health care, and considerable exposure to serious water-borne diseases and malaria. Our 2005 data show that 31% of households in the bandar had suffered the death of a child, indicating the severity of the public health problem. Another major problem is high rates of alcohol abuse among the male Hindu population. The public supply of electricity has improved, as have communications through the comprehensive spread of mobile phone access.

The second negative aspect of material wellbeing concerns the fisheries resource base. This is already hinted at by the steady increase in numbers of boats, yet the failure of catches to commensurately increase. Fishers complain of the increasing effort required to sustain their catches, of the diminution of yields of high-value species, of decreasing fish size, of the disappearance of certain indicator species, of the need to go out for longer periods for fishing, of poor catches, and of conflicts with other fishers at sea, particularly with trawler vessels who frequently damage the gear of Dhamlej boats (Johnson and Bavinck 2010). These ecological problems have been offset, but also exacerbated, by increased prices for fish.

**Relational Values in Dhamlej Bandar** Relational assigned values associated with the Dhamlej fishery can be broadly broken into two areas: social and environmental.

Socially, the small-scale fishery of Dhamlej makes possible, and is supported by, a vibrant and distinctive set of interlocking social relations structured by gender, household, kinship, sub-caste, faction, religion, and class. There are clear points of tension in the bandar, including episodes of open conflict in the past, which have resulted in major social separations along factional and religious lines. Such divisions are a microcosm of the larger cleavages that split the fishery of Junagadh and Gir Somnath Districts and, like those larger divisions, are a barrier to the more effective governance of the fishery. In the long run, if not overcome, these social disvalues could be decisively important for the fishery's social and ecological sustainability. Nonetheless, social relations have functioned sufficiently well to support a sizeable and growing fishing population.

We illustrate the complex texture of social relations in Dhamlej through two examples. The first is the ambiguity of relations between patrons and clients in Dhamlej, as is similar to Saiyad Rajpara. The provision of credit by patrons in Dhamlej is an institution that provides significant insurance value to fishers by allowing them to cope with the regular risk of the monsoon and the irregular risks of unexpected shocks. That relational assigned value has a cost, or trade-off, however, in that it opens fishers, particularly those that are not literate, to exploitation (see Johnson 2010). The second example is of relations based on occupation. Here there is an interesting wrinkle on assignments of value to different groups. Typically, Hindus view Machhiyaras pejoratively as having low status, often making reference to their untrustworthiness and their uncouth behaviour. When talking about Machhiyara fishing skill, however, we frequently heard Hindu fishers suspend their negative judgement and state that the Machhiyaras were the master fishers of the bandar. These glimpses into the social relational complexity of the bandar suggest that attempts to talk about value at an aggregate level risks overlooking important social positional differences.

Fisher-environment relations in Dhamlej generate relational assigned values through rich local ecological knowledge and through relations with place. On the latter point, fisher work at the sea-land interface has created a distinctive sense of place. This is primarily a subjective question, but it also has relational aspect. The sea, for Dhamlej fishers, is on the one hand valued as an awe-inspiring force, to which coconuts and ceremonial objects are offered at the festivals of Narial Punam, Ganpati puja, and Moharram. In contrast, the sea is also seen in highly commodified and materialistic terms, as when the fish from it are labelled instrumentally as "material". This tension between deep-seated respect and materialism remains unaddressed and, indeed, is heightened as fisheries governance continues to focus on productivism at the expense of sustainability.

**Subjective Values in Dhamlej Bandar** Subjective values in the Dhamlej fishery are assigned values in that they are a means to recognize the distinctive cultural embeddedness of the fishery and thus its contribution to human social diversity. They are also an important window into broader social and material satisfactions and concerns, and how these have changed as the fishery has changed. Subjective

assigned values are positional, as well, complicating the possibility of generalizing them to the entire bandar.

As we have already noted, fishing is peripheral to the consciousness of most Gujaratis. Nonetheless, for the fishers of Dhamlej, their occupation provides a rich foundation for their subjective self-perceptions. Reflecting the larger cultural context of marginalization of fishing in Gujarat, fisher self-evaluation is complex. As a general statement, for Muslim fishers, there is unalloyed pride in their work and in their profession. For Hindus, satisfaction with fishing appears more uncertain. As we did not address this question of identification with fishing directly and systematically in our research on Dhamlej, we have to draw support for this admittedly somewhat hypothetical claim from a few indirect sources of support, such as the interest young Kharva men expressed in shifting to other occupations. Whether the greater Hindu ambivalence towards fishing is a result of the moral complexity of fishing in the vegetarian context of Gujarat is an open question, but certainly one that seems plausible.

The contrast in the subjective relationship with fishing between Hindus and Muslims is rooted in their respective identification with the profession. For Hindu residents of the bandar, even while they are all involved in or dependent on fishing, their stories and aspirations often point elsewhere. Kharva caste identity, as related in their caste origin story, points fundamentally away from fishing. According to this narrative, Kharvas were originally high caste warriors from Rajasthan who came to Gujarat to defend Somnath against invading Muslim armies. They were defeated and forced to take up fishing and other maritime occupations to survive. In non-mythical time, Kharvas also say that historically their primary occupation was long distance maritime trade, not fishing. Indeed, for many, and Ghoghaliya Kharvas in particular, there is still an unrealized aspiration to join the merchant marine again. Machhiyara self-presentation as fishers has none of this complexity of association. The Machhiyara caste origin story is that they were migrants from Sindh whose ancestral occupation was fresh water fishing. Many generations ago, they gradually migrated down rivers into Gujarat where they eventually settled on the coast and took up marine fishing. Machhiyaras wholeheartedly embrace fishing and take pride in their work. This Machhiyara association with fishing and associated high degree of expertise is recognized by Hindu fishers, and is one area in which the Machhiyaras are given significant respect.

The subjective attachment to fishing felt by all fishers in Dhamlej is further complicated by the ongoing inadequacy of governance in the fishery and fisher perceptions that the ecosystem is increasingly stressed. Encounters with bigger vessels and the uncertainties of fish catches combine to generate a sense of anxiety among fishers. They convey this insecurity with the English term 'tension', and say that it eats away at them. Large increases in the number of boats in the bandar have also had the effect for Hindu households of creating intense competition for crew and many vessels cannot put to sea for lack of sufficient workers.

It is unsurprising that the subjective experience of fishing in Dhamlej is ambivalent. Nonetheless, the small-scale fishery of Dhamlej is a successful economic basis for livelihoods associated with a distinctive set of relationships and satisfactions that

make a unique contribution to the broader cultural mosaic of Gujarat and humankind. The fishery's values are a compelling argument for doing much more to improve local coastal and fisheries governance to assure the long-term sustainability of the fishery.

## 12.5 Discussion and Conclusions

In the preceding sections, we have tried to indicate the assigned values of the small-scale fisheries of Gujarat. Through the two village case studies and reference to assigned values at the district and state level, we have added a horizontal and cross-scale comparative dimension to the analysis. What remains is to identify what we see as the main substantive and theoretical implications of our analysis. We frame these by returning to the argument we presented in the introduction to the paper: that value creation in the Gujarat fishery has emphasized narrow economic goals and has neglected the equally important, at least for the fishing population, relational and subjective values of the fishery. This quite likely simply reflects the narrow productionist mandate of state intervention in fisheries but also may reflect a broader cultural ignorance of and, even, distaste for, fisheries; views that are related to culturally preponderant vegetarianism in Gujarat. This broader cultural politics of fisheries governance suggests that to address governance questions, there is a need to also pay attention to the normative character of held values. The consequences of inattention to social relations and the subjective elements of quality of life have had implications for governance by reinforcing a sense of alienation among fishers, hopelessness about what appears to them to be irreversible fisheries decline, and, for Hindus, ambivalence about their very profession.

At all scales of analysis presented in this chapter, it is indisputable that the fishery makes major economic and livelihood contributions. The foremost challenge for Gujarat is to recognize that these assigned values can only be sustained if the long-standing neglect of fisheries governance by the state is reversed. Such a reversal will require a reappraisal of the held value framework that has guided fisheries policy in the state, and then the hard work of embracing a more holistic set of held and assigned values. Specifically, fishing will need to be revalued as a rich, and culturally distinct livelihood. If such a profound held value resetting of fisheries governance were to take place, it would lead to raising some very hard questions about the sector. What inter-state agreements are possible to prevent encroachments by non-Gujarat vessels in Gujarat's overfished waters? How can policy rebalance fisheries effort in favour of the employment and livelihood-sustaining small-scale sector while continuing to maintain the economically important frozen fish export industry? What would institutional mechanisms to check the current open access crisis look like? How could such mechanisms be devised to promote small-scale fisher interests? Finally, among issues not dealt with in this chapter, how can fisher coastal space and access be sustained in the face of strong competition from other

industries for resources? How can fishers equip themselves collectively to anticipate the increasing vulnerabilities of climate change?

In the light of these broad governance concerns and questions, the comparison between Saiyad Rajpara and Dhamlej raises important observations. First, the two villages illustrate the markedly different ecological bases, fishing strategies and histories, and socio-cultural combinations that exist in close proximity along the Gujarat coast. This adds weight to the argument for policies to support the fishery and the socio-cultural wealth that depends upon it. This diversity is of enormous assigned value in and of itself, even if this will require a shift in held values to appreciate. This diversity along the coast points also, however, to the social and political complexities that have to be understood if there are to be serious efforts to develop strategies for sustaining small-scale fisheries in Gujarat. The tensions within and between religious groups in Dhamlej, for example, illustrate the challenges that would need to be overcome in order to constructively bring together Gujarat's fishers in any kind of co-governance process. The different experience of men and women in Saiyad Rajpara with the changing fisheries economy show another example of the wicked complexity of the challenge (Jentoft and Chuenpagdee 2009): changes will have contrary effects for differently positioned groups in the fishery and thus governance interventions will require making hard choices. Second, the history of overfishing in the two villages shows a parallel tension between the material, relational and subjective dimension of the fisheries' assigned values. In both villages, fisheries development has led to considerable material improvements in wellbeing. Simultaneously, however, material success has led to growing subjective anxieties as resource stress has increased. In neither village, has that material success been converted into relational benefits. In both villages, relations with the Fisheries Department have become more distant. In Saiyad Rajpara, community-level governance has weakened considerably. In both villages, relations with merchants remain strong but their economic focus leaves little hope as an avenue for governance improvement. Third, subjective relations with fishing in both villages show that there is a degree of ambivalence towards fishing held by Hindu fishers, while the Machhiyaras can be said to wholly embrace fishing. Perhaps in an open spirit of dialogue the Machhiyaras, despite their low social status and high illiteracy, could serve as a positive model for others in terms of engagement with fishing? Fourth, there is nonetheless a resonant sense of pride in their work among fishers, regardless of religion. The particularity of fishing as an occupation, also, means that fishers have a co-constructive relationship with place and with animals that is markedly different from other groups around them in Gujarat. There is a possible assigned value in that as well, if only it could be recognized.

Theoretically, our chapter tries to advance a relational approach to social wellbeing through the distinction between held and assigned values. We used the three dimensions of social wellbeing as a way of framing an interpretation of values in our two case study fishing harbours. Our presentation was cross-cut by the held value-assigned value distinction in that we recognized how social positionality along lines of gender, caste, and religion influenced perceptions of assigned value. In this sense, we differ from approaches that seek to measure values solely as



outputs, or ecosystem services, without also recognizing the positionality of values. We acknowledge that assigned values are easiest to grasp in terms of making the argument for the values of small-scale fisheries but, if we are to make the bridge to governance, we need also to recognize that assigned values are not stable things, but rather reflect historical and normative conditions, personal and collective held value differences, and the co-construction of life in particular ecologies. This brings complexity to the enterprise of governance, but also makes governance more realistic in recognition of the messy negotiations of alterity that characterize human social, economic, and political relations.

In keeping with the larger methodological challenge for analyzing values presented in the book's introduction, we have attempted to productively integrate quantitative measures of values at multiple scales with qualitative interpretations. By doing so, we have tried to convey some of the ambiguities and contradictions that accompany the exercise of assigning values to a small-scale fishery. Here also there is a lesson for the challenges of governance.

Our review of the values in Gujarat fishery is far from exhaustive, and we certainly are nowhere close to covering even the incomplete set of measures of value in this book's introduction or considering the fullness of social positionality in the fishery. Even for our two village examples, we had to be highly selective. Nonetheless, we have tried to carve out a framework of analysis for research on the Gujarat small-scale fishery that aspires to be more comprehensive. Our first task may be to return to Dhamlej with a more robust values framework, building on Biswal's research, to validate our preliminary observations there. A second step may be to develop a program of research to validate our argument about vegetarianism and held values at the societal level in Gujarat. This could lead, in the longer term, to more comprehensive research on fisheries in Gujarat and interventions that seek to shift the held value context for fisheries governance in Gujarat.

## References

- Armitage D, Johnson D (2006) Can resilience be reconciled with globalization and the increasingly complex conditions of resource degradation in Asian coastal regions? *Ecol Soc* 11(1)
- Bhathal B (2014) Government-led development of India's marine fisheries since 1950: catch and effort trends and bioeconomic models for exploring alternative policies. PhD thesis, UBC, Vancouver
- Biswal R, Johnson D, Berkes F (in press) Social wellbeing, commons management failure, and changing fisher perceptions of the viability of a small-scale bag net fishery in Gujarat, India. *J Commons*
- Coulthard S (2012) Can we be both resilient and well, and what choices do people have? Incorporating agency into the resilience debate from a fisheries perspective. *Ecol Soc* 17(1):4
- Coulthard S, Johnson DS, McGregor JA (2011) Poverty, sustainability and human wellbeing: a social wellbeing approach to the global fisheries crisis. *Glob Environ Chang* 21:453–463
- Cruikshank J (2012) Are glaciers 'good to think with'? recognising indigenous environmental knowledge. *Anthropol Forum* 22(3):239–250

- Deneulin S, McGregor JA (2010) The capability approach and the politics of a social conception of wellbeing. *Eur J Soc Theory* 13(4):501–519
- Fischer EF (2014) *The good life: aspiration, dignity, and the anthropology of wellbeing*. Stanford University Press, Stanford
- Gandhi MK (2002 [1927]) *An autobiography or the story of my experiments in truth*. Navjivan Publishing House, Ahmedabad
- Gough IR, McGregor JA, Camfield L (2007) Theorising wellbeing in international development. In: Gough I, McGregor JA (eds) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge, pp 3–43
- Government of India (2010) *Marine fisheries census*. Department of Animal Husbandry and Dairying and Fisheries, Ministry of Agriculture and Central Marine Fisheries Research Institute, Indian Council of Agricultural Research, New Delhi
- Gujarat (2014) *Varshik Gujarat Vikas Yojna 2013–14 Matsyudyog (Annual Gujarat Development Schemes 2013–14 Fishing Industry)*. Commissioner of Fisheries, Gandhinagar
- Harding S (1992) Rethinking standpoint epistemology: what is “strong objectivity?”. *Centennial Rev* 36(3):437–470
- Jentoft S, Chuenpagdee R (2009) Fisheries and coastal governance as a wicked problem. *Mar Policy* 33:553–560
- Johnson D (2001) Wealth and waste: contrasting legacies of fisheries development in Gujarat since 1950s. *Econ Polit Wkly* 36(13):1095–1102
- Johnson D (2010) Institutional adaptation as a governability problem in fisheries: Patron-client relations in the Junagadh fishery, India. *Fish Fish* 11(3):264–277
- Johnson D, Bavinc M (2010) Social justice and fisheries governance: the view from India. In: Metzner R, Isokawa D, Liu Y, Wells F (eds) *Proceedings of the sharing the fish conference*, Freemantle, Australia 2006. FAO, Rome
- Johnson D, Sathyapalan J (2006) Legal pluralism in the marine fisheries of Junagadh District and the Union Territory of Diu, Working Papers Series 2006. Indo-Dutch Program for Alternatives in Development, Delhi/The Hague, p 80
- Kooiman J, Bavinc M, Jentoft S, Pullin R (eds) (2005) *Fish for life: interactive governance for fisheries (MARE Publication Series)*. Amsterdam University Press, Amsterdam
- Lockwood M (1999) Humans valuing nature: synthesising insights from philosophy, psychology and economics. *Environ Values* 8(3):381–401
- Sathyapalan J, Johnson D (2008) Livelihood security in the marine fisheries sector of Gujarat State, India. In: Dev SM, Babu KS (eds) *India’s development: even or uneven? Reflections on development theory and practice*. Manohar Press, New Delhi, pp 277–304
- Seymour E, Curtis A, Pannell D, Allan C, Roberts A (2010) Understanding the role of assigned values in natural resource management. *Australas J Environ Manag* 17(3):142–153
- St Martin K (2007) The difference that class makes: neoliberalization and non-capitalism in the fishing industry of New England. *Antipode* 39(3):527–549
- Viveiros de Castro E (1998) Cosmological deixis and Amerindian perspectivism. *J R Anthropol Inst* 4(3):469–488
- White SC (2010) Analysing wellbeing: a framework for development practice. *Dev Pract* 20(2):158–172
- White S, Ellison M (2007) Wellbeing, livelihoods and resources in social practice. In: Gough I, McGregor JA (eds) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge, pp 157–175
- Yadav Y, Kumar S (2006) *The food habits of a nation*. (2006, August 14). *The Hindu*

**Derek S. Johnson** is an Associate Professor of Socio-cultural Anthropology at the University of Manitoba and a Research Associate at the Centre for Maritime Research at the University of Amsterdam. Derek’s research integrates political ecology and social wellbeing approaches in the

analysis of small-scale fisheries governance and cultural economies of food. Since the mid-1990s, his primary geographical area of interest has been South Asia, and particularly the Indian state of Gujarat. Derek led the Diverse Values research cluster and a working group on the social and cultural dimensions of small-scale fisheries within the Canadian Social Sciences and Humanities Research Council project Too Big to Ignore: Global Partnership for Small-scale Fisheries Research. This volume is an output of those groups.

**Rajib Biswal** has master degrees in Natural Resources Management (Canada) and Rural Development (UK) and is currently a Ph.D. student at the University of Manitoba in Canada. For his master thesis (Canada), he conducted research on the bag-net fishery on the west coast of India. He used commons and social wellbeing theory to explore social aspects of fishery governance and management. He has worked for non-profit organisations, including the United Nations Development Program, and has worked with many rural communities in India including fishermen, farmers, and indigenous communities. He is mainly interested in community-based resource management, livelihoods, society and culture, and rural and indigenous communities.

**Dr. Jyothis Sathyapalan** is an Associate Professor of Economics at the Centre for Economic and Social Studies, Hyderabad. His research is focused primarily on sustainable development, with a focus on the interface between biodiversity conservation and human wellbeing in marine fisheries. His major research project currently is Biodiversity and Ecosystem Service Scenarios Network (ScenNet), supported by the Belmont forum through the Ministry of Earth Science, Government of India. He was nominated by the Indian government as a Lead Author of IPBES "Global Assessment" (deliverable 2c), "Asia Pacific Assessment" (deliverable 2b) and as a Review Editor for "Scenarios and Models of Biodiversity and Ecosystem Service Assessment" of the IPBES. He is co-author of the book Economics of Biodiversity Conservation: Valuation in tropical forest ecosystems published by Earthscan.

# Chapter 13

## From Poverty to Wellbeing in Small-Scale Fisheries: The Governability Challenge

Svein Jentoft and Ratana Chuenpagdee

**Abstract** Ascending out of poverty and achieving wellbeing is the end outcome of a very complex chain of interrelated factors, interactions and governance decisions, which makes wellbeing challenging to achieve. Governance interventions must be linked to social justice, sustainable livelihoods, food security, and ecosystem health in order to overcome poverty and wellbeing challenges. The multidimensional nature of the wellbeing concept, covering subjective, social and material aspects of what together make up a good life, aligns well with the holistic and integrative perspective of interactive governance. In particular, interactive governance posits that achieving wellbeing requires efforts in all ‘governing orders,’ i.e. the deliberation on values and principles, the design of institutions, and the daily practice of governance as deliberative systems and the technicalities of management. At the meta-order, to achieve wellbeing, governing principles such as those related to decision-making and justice would need clarification along with consideration of the social values and norms that underpin them. From these principles, institutions governing stakeholders’ representation and participation, along with rules and norms guiding governing actions follow, as the second order. The first order then is concerned with the actual governing operation, including the selection and implementation of tools for management. Drawing from case studies of small-scale fisheries around the world, we provide examples of governing interventions at the different orders and how they contribute to moving small-scale fishing people and their communities from poverty to wellbeing, while sustaining the fundamental values that characterize small-scale fisheries as a source of livelihoods and a way of life.

**Keywords** Small-scale fisheries • Poverty • Wellbeing • Interactive governance • Governing orders • Governability

---

S. Jentoft (✉)

Norwegian College of Fishery Science, UIT – The Arctic University of Norway,  
Tromsø, Norway  
e-mail: [svein.jentoft@uit.no](mailto:svein.jentoft@uit.no)

R. Chuenpagdee

Department of Geography, Memorial University of Newfoundland,  
St. John’s, NL A1B 3X9, Canada  
e-mail: [ratana@mun.ca](mailto:ratana@mun.ca)

## 13.1 Introduction

Small-scale fisheries governance is not just about the health of the fish stocks and marine ecosystems. Neither is it only about the sector's contribution to society. It is also about the wellbeing of millions of people worldwide, who draw their livelihoods from it. These livelihoods are, however, not always viable and many small-scale fishing people live in impoverished conditions. Small-scale fisheries governance is therefore a complex and demanding task, one that is as much ethical, political and social as it is technical and scientific (Jentoft and Chuenpagdee 2015a). It requires a broad range of interventions, which cannot be left to a government agency with a narrow mandate, not even one that only considers fisheries. Clearly, multiple government agencies and civil society organizations, including those that exist at the local community level, have a role to play in a governance process that aspires to, and fosters, democratic ideals and principles, without which governability cannot be achieved.

Governance initiatives must target the communities that people in small-scale fisheries build and the linkages they have with their natural and social environment, and the world at large. Building healthy communities in which small-scale fisheries can thrive is essential to good fisheries governance (McCay and Jentoft 1998; Jentoft 1999). This is also the understanding underpinning the milestone achievement of the Food and Agriculture Organization (FAO) with the Voluntary Guidelines for Securing Small-Scale Fisheries (SSF Guidelines), endorsed by FAO member states in June 2014 (<http://www.fao.org/3/a-i4356e.pdf>), and which from now on will be a central benchmark for small-scale fisheries governance globally and at all scales. However, implementing the SSF Guidelines is not going to be easy. Small-scale fisheries form systems that are both complex and dynamic, and which involve multiple activities throughout the fish chain from harvest to markets, cutting across levels from local, national to international. They are therefore challenging from a governability perspective (Chuenpagdee et al. 2013).

In the first instance, governing for improving wellbeing and alleviating poverty in small-scale fisheries must begin with an understanding of values. Values are personal and relational, characteristic of the individual as well as the group. It is against these values that wellbeing is evaluated. Governance mechanisms and outcomes that encroach upon inherent personal and social values are not likely to enhance wellbeing, even if alleviating material poverty. This happens, for instance, when governance interventions mean that fisheries can no longer support a preferred way of life, a life small-scale fishing people find to be meaningful and satisfactory. Values exist prior to governance interventions but may also be influenced by them. Indeed, governance is a process whereby values are expressed, 'tested', deliberated, and acquired. Consideration of values in the governance process is what interactive governance theory refers to as the 'meta-order' (Kooiman 2003; Kooiman et al. 2005). It can also be added that participation in governance, which is the 'first order' substance, may in itself be conducive to wellbeing, which in turn may result in the design and arrangement of institutions including legal frameworks at the 'second

order.’ Governance for wellbeing has to involve all three orders in a mutually reinforcing manner such that the wellbeing experienced by small-scale fishers can lead to institutional capacity for interactive governance, as well as to strengthening the values of participatory democracy and therefore its institutions and practice.

Poverty and wellbeing, along with values associated with small-scale fisheries, must be defined, operationalized and contextualized through the governance process. They cannot be determined externally or independently from the people who know and experience what their lives bring and whose participation in governance is essential (Qizilbash 1998). Rather, these concepts have ‘emic’ aspects that need to be expressed and represented in decision-making. Notably, the question is not only what values small-scale fisheries bring to society at large, but also about what they mean for the small-scale fishing people themselves, i.e. what philosophers would call “prudential value” (cf. Sumner 1996; Taylor 2013). Such values, and the culture that nurtures them, are not given naturally but generated in a social process that is culturally informed and institutionally framed. While all members of a fisheries community may not share these values, there needs to be sufficient convergence for intelligent communication to take place (Qizilbash 1998). The governance process must also be structured in a way that allows decisions to be informed by the values that small-scale fishing people hold and by what they may agree upon.

The following section first provides a brief overview of wellbeing and poverty concepts and concerns in small-scale fisheries. Next, the chapter concentrates on the governability challenge associated with wellbeing and poverty in small-scale fisheries, and presents an analytical framework for addressing this challenge, notably focusing on the governing orders (Kooiman 2003). Here, drawing on Sen (2009), we argue that the governability problems pertaining to wellbeing and poverty involve more than “getting the institutions right,” as Ostrom (1990: 12) insisted; it is equally essential to get the governance process right. This is an inherently “wicked” social and political problem, as Rittel and Webber (1973) labeled it, partly because it involves conflicting stakeholders’ values that do not go away easily even after thorough deliberation and extensive negotiation (Gutmann and Thomson 1996).

## 13.2 Governance Challenges in Small-Scale Fisheries

**The Complex World of Fisheries** The term ‘fisheries,’ when generically used, is mostly taken to mean commercial fishing enterprises, operating in a traceable system of fishing areas, landing places, and post-harvest activities such as processing and marketing. Since the ‘great fish race’ (Butcher 2004), an era of ocean industrialization (Smith 2000) or the ‘blue revolution’ (Bailey 1988; Bavinck 2011a) in the late nineteenth century and early twentieth century, most of the fishing sea- and landscapes have changed. Large, engine-powered vessels, with mechanized gears, enhanced storage capacity and refrigeration were introduced and operated alongside the small boats operating from local, typically rural communities, but also

further from shore. Large-scale infrastructure, like harbors and roads, improved processing facilities, and market expansion and internationalization were part of economic development. As a result, the world fisheries production (marine and inland capture and culture) increased by about fivefold from about 20 million tons in the 1950s until stabilizing at about 90 million tons since 1995.

Government's interest in the large-scale, industrialized fishing sector is also high because, although small in number relative to the small-scale fisheries, they generate sizable income and export earnings. For this reason, they benefit from high financial investment, subsidies, and management systems oriented for them. Far less attention is paid to small-scale fisheries, partly due to their marginalized characteristics. Small-scale fisheries take place in any body of water, including in remote areas where monitoring of catches is difficult. Small-scale fishing often involves family members and relatives, who keep part of the catches for household consumption, and the rest is distributed within the local market, both within and outside the community. Income from fishing is usually small, and is often supplemented by other livelihood activities, such as farming. A dominant image of small-scale fisheries is that they "rhyme with poverty", while that of industrial fisheries is one of wealth (Béné 2003; Jadhav this volume). Little appreciation is paid to revenues generated by the small-scale fisheries sector, and its contribution to food security and poverty alleviation. The latter is far greater than that of industrial fisheries for many impoverished coastal communities around the world (Eide et al. 2011). The traditional values that small-scale fisheries represent, rooted in history, community and culture, are typically relegated to romanticism and an idealization of rural life. Their demise is therefore explained in evolutionary terms, as an inevitable progress and modernization towards a development model promoted in large-scale fisheries.

What is often overlooked is the fact that small-scale fishers are commonly involved in competitive relationships with large-scale operators, exploiting the same resources, operating in the same physical space, and sometimes selling to the same markets. They are also competing for political attention. To politicians, technocrats and many academics, small-scale fishing people are the problem, as in the common statement of "too many people chasing too few fish" (Barkin and DeSombre 2013). Many policy makers in fisheries are therefore more than willing to let small-scale fisheries go, and encourage small-scale fishers to abandon fishing and move into other livelihoods in an effort to increase economic efficiency of the fishing industry. The consequence may, however, be detrimental to sustainability, as this policy comes at the price of damaged habitats, overexploited fish populations, demise of local fishing communities, displacement of small-scale fishing people, and loss of cultural heritage (Urquhart et al. 2014).

Fishing has long been part of the livelihood portfolio of coastal communities, along with other food production systems. A closer look reveals a shift in fisheries production from developed to developing countries where small-scale fisheries dominate (Chuenpagdee et al. 2006). With about 80% of the world's fisheries production taking place in developing countries, which now account for more than 50% of the world fish trade, the importance of small-scale fisheries is not trivial. This pattern is even more striking when it comes to inland fisheries: 95% of global inland

capture production now comes from developing countries (FAO 2009). With 20% of the world's population relying on fish as the main source of protein, and at least 135 million people depending on fishing livelihoods (FAO 2009), it is imperative to have not only a whole portrait of the fisheries, but also an ability to differentiate between small and large-scale fisheries. Such differentiation makes good sense when, according to FAO (2009), about 90% of the world's fishing people are involved in small-scale fisheries.

**Poverty and Wellbeing** Globally, key concerns in fisheries are related to ecosystem health, social justice, livelihood sustainability and food security (Chuenpagdee et al. 2005). These are of particular relevance to the wellbeing of small-scale fisheries given their high dependence on the aquatic environment and their vulnerability to global change processes such as climate change and globalized markets. Poverty alleviation and wellbeing augmentation require, first and foremost, the understanding of what these phenomena are and what they mean to fishing people and their families in their own context. Drivers of poverty and wellbeing may originate outside of the sector; thus a broad perspective is needed for governance to be effective, one that does not only focus on fisheries and fish harvesting.

Both poverty and wellbeing concepts have a rich academic literature outside and in relation to (small-scale) fisheries (Jentoft and Midré 2011). Definitions have evolved over time, taking on new aspects. Poverty has come to include aspects such as income, health, education, and power, whereas the wellbeing literature emphasizes a relational dimension in addition to the traditional subjective and material dimensions (McGregor 2010; Coulthard et al. 2011; Weeratunge et al. 2014). It makes sense to look at poverty and wellbeing as two sides of the same coin, even if it cannot necessarily be concluded that the absence of some criteria defining one automatically implies the prevalence of the other. Still, methodologically, for an inquiry into the idea of wellbeing, it makes sense to study the state of poverty or ill-being (Dagupta 1993), because what explains one also, to some degree at least, explains the absence of the other. Poverty and wellbeing are therefore often treated simultaneously (see for instance Hulme and Toye 2007, and Coulthard et al. 2011), with impoverishment a condition of reduced wellbeing. Yet, even if deprivation is painful, it is not necessarily an unbearable situation for the deprived, as people may lower their expectations to what they may 'realistically' attain given the circumstances they live with. As Sen (2011: 283) points out, poor people may "train themselves to take pleasure in small mercies", or as Sayer (2011: 134) phrases it, "refuse what they are refused." Poor people may therefore still find happiness, dignity and satisfaction, expressing thus prudential values, which are all essential to wellbeing.

This does not, however, by implication, contradict the notion of wellbeing as an objective state of being, as something "people strive to discover, achieve or create" (Sayer 2011:134). The wellbeing perspective would rather phrase this as a low score on material wellbeing, but a high one on subjective wellbeing, possibly compensated also by a high score on relational wellbeing. Therefore one cannot simply think of poverty and wellbeing as extreme opposites of a scale. This is further complicated by the broadening notion of poverty which has occurred over time, moving



from income (material) poverty into a less narrow idea that includes other essential life fulfillments, such as health, literacy, agency and the like (Béné 2003).

Those who experience wellbeing are generally capable of adding to it. They may have the energy and inclination to engage in community development, which ultimately leads them to enjoy more wellbeing. Wellbeing is capability enhancement, and therefore as Sen (2001) argued with regard to “agency freedom,” it is not only a development goal, but also a pathway towards a better wellbeing state. Whether wellbeing can be targeted directly or indirectly, or whether it is part of a causal governance sequence, a condition and/or an outcome, is an intriguing question for small-scale fisheries governance research. If both, wellbeing would facilitate a virtuous circle, and hence help to break the “vicious circle of poverty”, referred to by Jentoft and Eide (2011). There is also reason to believe that the same mechanism works as far as interactive governance is concerned. As Barber (1984: 152) reminds us, “community grows out of participation and at the same time makes participation possible.” Participation in governance, as emphasized in interactive governance, can thus help enhance wellbeing, which in turn contributes to facilitating the interaction that makes governance efficient, effective, legitimate and just.

### 13.3 Governing Orders

In Jentoft and Chuenpagdee (2015b), ‘interactive governance’ can be portrayed in three ways: as an empirical phenomenon, something that is actually happening between state, civil society and industry participants; as a normative theory that makes a case for its desirable assets; and as an analytical perspective. In the latter sense it is a conceptual framework, as originally developed by Kooiman (2003) and later applied to fisheries by Kooiman et al. (2005), Bavinck et al. (2013) and Jentoft and Chuenpagdee (2015a). We believe that the same distinctions can be drawn with regard to wellbeing – as a state that people and communities have or do not have (empirical), a normative issue, something that should be actively pursued, and an analytical perspective, conceptualized by Gough and McGregor (2010) as material, subjective and relational wellbeing. These parallels suggest opportunities for cross-fertilization, given that wellbeing enhancement is something that governance could/should aim at. Coulthard et al. (2011: 460) recognize this potential with their observation that “as with the interactive governance approach the wellbeing framework indicates the need to establish an interactive process to construct governance, in which the wellbeing priorities and aspirations of the different stakeholders are systematically taken into account.”

Certainly, governability assessment (Chuenpagdee and Jentoft 2013), which evaluates the “overall quality of governance”, needs criteria for determining good governance status, success or failure. For this, the three dimensions of wellbeing (material, subjective and relational) provide a more holistic set of values than those typically employed from narrow disciplinary perspectives, which tend to employ reductionist approaches, and concentrate on a single goal such as maximum

**Table 13.1** Issues relevant to wellbeing at different orders of governance

Order	Governing sphere	Governing intervention
First	Management practices, tools, routines	Access demarcation, conflict resolution, information sharing, monitoring, control and surveillance, insurance scheme
Second	Institutions, organizations, rules, norms	Fisheries legislation, capacity enhancement, co-management arrangements, post-harvest infrastructure
Meta-	Values, principles, images	Awareness building, problem definition and issue framing, goal setting, consideration of fundamental concerns

sustainable yield (biology) or maximum rent (economics) (Weeratunge et al. 2014). The latter may, as Charles (1998) maintains, be more relevant for industrial, large-scale fisheries than community-based, owner-operated and labor intensive small-scale fisheries, which are in themselves operated from a mixed set of goals and a different rationality than that of a capitalist enterprise. We believe that interactive governance is clear enough about which concerns are important for fisheries, but needs further deliberation in terms of ‘governing order’ with respect to both the causes of poverty and the means to enhance wellbeing. Interactive governance research should therefore be concerned with not only how fishers cope with poverty at the first order, but also how institutional designs work from a wellbeing perspective (second order), and whether they are conducive to the wellbeing of small-scale fisheries (Table 13.1). In accordance with what Sen (2009) argues with regards to process, delivering wellbeing is also a first order concern, and is as important as the second order institutions. Interactive governance would further emphasize that wellbeing should not only be seen as an outcome (dependent) variable but also as an independent variable, influenced by a series of meta-order values and principles (Kooiman and Jentoft 2009; Song et al. 2013). This is in line with Hardin’s argument (1969) that the underlying issue with respect to “the tragedy of the commons” is about human values and ideas of morality, which cannot be dealt with by technical expertise.

As an illustration of our argument about the link between interactive governance theory and wellbeing, we refer to case studies of small-scale fisheries in fifteen countries in Latin America, Africa, Asia and Europe, which portray ways that small-scale fishing people deal with their state and conditions of poverty (Jentoft and Eide 2011). We re-examined these case studies from the wellbeing lens and the conceptual framework of governing orders (Kooiman et al. 2005). Such an exercise enables refinement of the understanding of where governance interventions must occur, and in which order to enhance the wellbeing of small-scale fishing people. Some case studies show how small-scale fishers’ actions and strategies are mostly pragmatic and opportunistic, which often apply when fishers face unexpected situations or when they are in vulnerable conditions. Other coping mechanisms exist, however, at the second order, when fishers build institutions (like cooperatives and market organizations), sometimes with the support of government, in order to reduce their

vulnerability and improve their living conditions. Other case studies emphasize the importance of values and principles that would lead to enhancing wellbeing and argue that the governance of small-scale fisheries must also involve reflections and deliberation on what these meta-order elements are, and what they should ideally be.

### 13.4 Case Study Illustrations

**Coping with Poverty at the First Order** To millions of people around the world, especially in the Global South, fishing is an important source of livelihood. Access to fisheries resources for daily sustenance is essential but competition can be fierce, for instance, when poor people from upland and non-coastal areas migrate to coastal areas. More often than not, small-scale fishers struggle to find a way to survive, sometimes through the use of destructive fishing gear and unsustainable fishing practices, as happens in the Mekong Delta of Vietnam according to Nguyen and Flaaten (2011) in their research about causes of poverty in small-scale fisheries in that region (see also Lokuge and Munas this volume). Here, despite the awareness about the impacts of destructive fishing practices on fisheries resources, small-scale fishers have no alternative but to continue to use illegal fishing gears. A similar situation is found in Mozambique (Menezes et al. 2011) where reform in governance and changes in fisheries policies over the last few decades have not been successful at addressing the problem of unsustainable fisheries. Instead, these efforts from the government resulted in generating a greater divide between the better-off fishers and the poor ones. While some positive development was observed, poor infrastructure and conflicting uses of the coastal zone hamper the ability of the poor fishers to overcome poverty challenges. As a result, more than 70% of the coastal population in Mozambique still lives below the poverty line.

As shown in Bavinck's study (2011b) in Tamil Nadu, India, small-scale fishers have to compete for resources and space with expansionary large-scale fishing fleets. The technological modernization of the fisheries instigated by the government as part of their "Blue Revolution" agenda has essentially had an impact not only on the fishery resources, but has also created problems in the social structure within and between local communities. In this circumstance, poverty is driven by policies that marginalize small-scale fishers, making it difficult for them to have secure livelihoods.

South Africa has also seen policy change targeting small-scale fisheries. The new fisheries policies have not succeeded in reducing the vulnerability and poverty of small-scale fishers, however, due to the capture by local elites of the benefits of those policies (Isaacs 2011). As a result of the lack of effective organizations to represent their collective interests, small-scale fishers have resorted to poaching, even within protected areas. This has led to further degradation of the fisheries resources on which they depend. The situation in Malawi and Vietnam is equally bleak, with continued decline of fisheries resources in the countries' lakes (Hara 2011;

Nguyen and Flaaten 2011). When small-scale fishers rely solely on one species, like *chambo* in Lake Malombe, as a source of income and livelihoods, they are vulnerable and much more susceptible to poverty.

In disaster-prone areas, like the Chittagong coast of Bangladesh, small-scale fisheries do not have the safety net of a well-functioning welfare state to rely on when crisis hits (Islam 2011). They are basically what Krishna (2010) refers to as being only “one illness away” from descending into extreme poverty, a position from which it is hard to recover because natural hazards like cyclones are recurring phenomena. Turkish fishers on the Black Sea face similar vulnerability (Knudsen and Koçak 2011). Further, as price-takers, small-scale fishers in Bangladesh lack bargaining power in market chains, and are often subject to harassment by money-lenders and government officials. In this context, coping mechanisms are ad-hoc and pragmatic at best (Islam 2011).

The Vistula Lagoon of Poland has exhibited a different political reality since the fall of communism and through the integration of Poland into the European Union (Marciniak 2011). Still, some of the same trends can be discerned as in the south in terms of environmental pressure and social marginalization to the extent that many people find it hard to sustain their traditional fishing livelihoods. As a consequence, young people leave their home communities to seek opportunities elsewhere; while those remaining are unemployed and dependent on government assistance in order to get by. Small-scale fishers in this region are perhaps not poor in an absolute sense, at least when compared with those in other case studies, but they are certainly poor and marginalized when compared to other social groups in their surroundings. In Turkey (Knudsen and Koçak 2011), the fishery went through a boom and bust period, challenging fishing people’s adaptability and coping capacity. But poverty is only partially related to what happens in the fishery *per se*, and cannot be explained by overfishing only. Instead, it must be perceived in a much larger context, as the drivers of change are as likely to be found outside the fishery, including the political marginalization of small-scale fishing people, especially those of Romani ethnic background, who are typically victims of discrimination.

The Turkish and Polish case studies illustrate that poverty in small-scale fisheries is not unique to the tropical south. Small-scale fishers remain in poverty, both in an absolute and relative sense, for similar reasons, such as resource degradation, political marginalization, weak bargaining power, lack of supportive legislation, and low organizational capacity. All of these are conditions that occupy them, leaving them with no opportunity to deal with poverty beyond what they can do at the first order.

**Organized Responses at the Second Order** Hardly anything is stable in small-scale fisheries, but mitigation strategies can be employed, as when building institutions creates governance capacity, insurance mechanisms and welfare arrangements. In many cases, these institutional arrangements come in the form of community organizations and cooperatives, many of which may already be in place but may well be in need of financial, legal or other forms of support (Bavinck et al. 2015). As Sen (2001) advocates, such institutions enhance freedom for mitigation

options and build capacity for better responses, rather than limiting them. Fishing can even be an important basis for wealth generation when facilitated by investments in organization, education, health and infrastructure (Jentoft et al. 2010; Bavinck 2011b). It also requires institutional capacity for sustaining the resource base, i.e. to withstand pressure that may undermine the integrity of the ecosystem.

The adaptive capacity of small-scale fishing people should, however, not be under-estimated. Natural conditions (such as weather) are always shifting. Knowing how things change and learning how to be safe are examples of the inherent expertise fishers acquire by practicing their profession. Small-scale fishers are also typically self-employed; they are entrepreneurs who calculate risks and opportunities. But their vulnerability can be reduced by second-order institutional arrangements, as demonstrated in several of the case studies, where small-scale fishers engage in collective action, forming organizations that work as a buffer in times of crisis, like in the case of Mexico described by Salas et al. (2011). Vulnerability can also be reduced when small-scale fishing people have secure rights to livelihoods, land and marine resources as in the case of the Caribbean Coast of Nicaragua where progressive legislation has been put in place (Gonzalez 2011). But these rights need to be more vigorously implemented and enforced than is the case in Nicaragua if small-scale fishing people are to benefit. Second order governability challenges are added when small-scale fishers are of diverse ethnic origins and work in forests and agriculture as well, which is the case in the studies from Nicaragua and Guatemala (Andrade and Midrè 2011).

Given the right institutional conditions, small-scale fisheries can potentially play a much bigger role in improving their wellbeing, as well as that of others. This is the situation in Sri Lanka (Amarasinghe and Bavinck 2011) and Mexico (Salas et al. 2011) where small-scale fishers are organized into well-functioning cooperatives. In the former, small-scale fishers were badly affected by the 2003 Indian Ocean tsunami (Amarasinghe and Bavinck 2011). They were also disadvantaged by weak credit arrangements, lack of product and insurance markets, increasing costs of fishing equipment, and deficient educational and training services. Still, small-scale fishers were able to establish local cooperatives to secure external resources and build capacity at community level. Similarly in the Yucatan coast of Mexico, the impacts of natural disasters like hurricanes are minimized by the activities of fishers' cooperatives, which help fishers prepare for, and cope with, environmental shocks (Salas et al. 2011).

In Guatemala, poverty is especially profound among indigenous and displaced people in rural areas like the Caribbean coast (Andrade and Midrè 2011). The open-access fishery means that resources are under pressure from high fishing intensity, unsustainable fishing practices, and ineffective management. Still, on their own, fishers are able to organize and establish agreements on how to allocate access. In other instances, small-scale fishing people are already well organized and therefore have power to control the conditions under which they work. An example of this is in southern Thailand where small-scale fishers have established market cooperatives

that allow them to set prices for their products and obtain high profits (Chuenpagdee and Juntarashote 2011).

Such collective efforts at harvest and post-harvest management by groups of small-scale fishers can result in sustainable wealth generation as, for instance, when profits made in small-scale fisheries are re-invested in the community to create post-harvesting jobs for women and children. Thus, when small-scale fisheries are viable, not only the material wellbeing of fishers is achieved, but also that of the community. This also suggests that wellbeing is a systemic and relational attribute of small-scale fisheries and that the way out of poverty is to invest in synergies at the community level (Weeratunge et al. 2014). But the mechanism also works the other way. Small-scale fisheries could hardly work without well-functioning communities that provide the services that fishers depend on, as well as opportunities for value-added production. It is important to note the need to be sensitive to gender, the roles that women play in the fisheries chain as illustrated in many of the case studies and that women have needs, interests and aspirations that may not be shared by men. In fishing communities, poverty is often “feminized” – something that women experience more than men (McCay 2005). Writing of the situation in South Africa, Isaacs (2011) argues that fisheries governance must create the “action space”; the opportunities that make it possible for women to thrive. Second order governing must therefore also include them.

**Towards Wellbeing at the Meta-order** Urquhart et al. (2014: 11) observe from the studies of small-scale fisheries in parts of Europe that fishing is increasingly an occupation of choice, but “where choice is circumscribed by negative images and uncertain future prospects...” However, for many people, like those in Tanzania (Onyango 2011) and Ghana (Kraan 2011), small-scale fishing is a way of life, and not an ‘occupation of last resort’, which is a common image of this sector among policy makers and academics (Panayotou 1982; Béné 2003; Veerelst 2013). Onyango (2011) further elaborates the satisfaction and wellbeing expressed by small-scale fishers in Tanzania, from the sense of belonging to a local community to which they contribute in return for safety. These values and the image of the fishing way of life reflect the meta-order elements of governance, which governing interventions must be measured against. He argues that if such interventions break fundamentally with local culture, norms and values, they are likely to fail, misfire, or even do great damage. But as Hara (2011) submits in the case of Malawi’s Lake Malombe, to be sustainable small-scale fisheries must undergo cultural change; fishers can hardly rely on God to provide but must themselves take responsibility for the health of the resource and the viability of their fishery.

It must also be noted that small-scale fisheries are typically driven by different rationalities than those of large-scale fisheries. For instance, the wellbeing of small-scale fishers may not be primarily driven by the urge to invest and expand, to accumulate wealth and maximize profit. Rather, small-scale fishers, in many instances, attribute high values to maintaining their family enterprise and tradition, and to continuing what they do at a scale they are comfortable with (van Ginkel 2009). This is also what Chuenpagdee and Juntarashote (2011) argue in the Thai case

study, when referring to a ‘sufficiency principle’, which expresses a value in accord with the notion of sustainability. Wellbeing of small-scale fishing people in this example is about being content and satisfied with their current material condition but also with how they see themselves relative to others, as in the Mexican case study, where small-scale fishers do not view themselves as poor when they compare themselves with others and as long as they can eat (Salas et al. 2011). For these fishers, more wellbeing does not need to involve more material resources and more wealth beyond their basic needs. Still, that does not take away the fact that in many parts of the world, small-scale fishing people live in material poverty that is extreme and unacceptable.

Jentoft et al. (2011), in a summary statement, hold that small-scale fisheries governance needs to follow the *dexterity principle*, which implies that there is no one-size-fits-all prescription to fisheries poverty alleviation and wellbeing. Governance initiatives need to be sensitive to the unique values and features of small-scale fisheries and the particulars that differ from one situation to another or from one group or community to the next. It follows that designing institutions according to the dexterity principle requires decentralization, and broader stakeholder representation and involvement beyond the central government, which sits too far away to possess the local knowledge that this principle requires. Decision-making must, in other words, be brought closer to where the problem is actually experienced and where many of the solutions must be sought.

The dexterity principle is therefore logically linked to another meta-order governance principle, that of *subsidiarity*, which states that management’s decision-making authority should be vested with the lowest possible organization (McCay and Jentoft 1996). But for the subsidiarity principle to be implemented, it needs to involve communities that are reasonably well organized (second order), something that the higher authority, according to this principle, has a responsibility to help facilitate and support. Another version of the subsidiarity principle, spearheaded by the Indian based International Collective in Support of Fish Workers (ICSF) is that resources that are within the reach of small-scale fisheries should be reserved for them as a livelihood source and a safety valve (Bavinck and Jentoft 2011). Such a principle is particularly pertinent from a justice perspective, most importantly the *difference principle* of John Rawls (1971), which legitimizes positive discrimination towards those in disadvantaged positions. This also applies to fishing rights. Rights-based systems that are supported by fisheries managers and economists all over the world could/should be subject to the litmus test to which this principle invites: Do they benefit those in direst need or are they yet another scheme that works in favor of people who are already privileged, economically, socially and politically? We argue that the difference principle for small-scale fisheries also implies a *precautionary principle* that is not only sensitive to the ecosystem limitations. It also relates to the material, subjective and relational dimensions of people’s livelihoods and wellbeing, as small-scale fishing people are vulnerable and their communities have tipping points and hence face existential risk. Ill-conceived governance may easily bring small-scale fisheries beyond that point.

All these meta-governing principles for small-scale fisheries recognize that the state cannot, and should not, do everything alone, but they do not, by implication, exclude the state from the governability equation. In fact, the state has a role in, and a responsibility for, implementing these principles. Governments have legal, financial and other resources at their disposal that local communities and individuals do not have. This is certainly the case in those small-scale fisheries that this chapter is focusing on. For instance, the state can and should establish macro-economic policies aimed at alleviating poverty and enhancing wellbeing through fisheries development and management. The state also has the means to support small-scale fisheries research, which provides knowledge that is essential from a governance and governability perspective.

For this reason, the *urgency principle* is necessary. Given what is happening with marine ecosystems and communities, and the threats they are facing due to climate change and other challenges associated with globalization, governments have sufficient reason to act without delay. Since small-scale fisheries communities are: (a) vulnerable and may easily slip into poverty; (b) make a significant contribution to poverty alleviation and food security around the world and can potentially play an even bigger role in improving community wellbeing; and (c) can be effective stewards of marine and coastal ecosystems if they are organized and supported for those tasks, policies to alleviate poverty and enhance wellbeing are called for. Small-scale fishing people need to feed their families, bring children to school, maintain good health, and care for the sick and elderly. They also must defend their environment from degradation. They therefore deserve bold governance initiatives that contribute to the betterment of their livelihoods today and enable them to lead lives that realize their aspirations and potentials. This is also what the above mentioned SSF Guidelines are advocating.

Such policies should not just aim at creating jobs for people involved in small-scale fisheries but rather help them create their own jobs, be self-employed and free, which is an essential value that makes small-scale fisheries attractive in the first place. Not only will these policies help by enhancing material and relational wellbeing, subjective wellbeing generated from the satisfaction that comes with self-sustenance and independence from corporate and state control will also increase.

### 13.5 Discussion: Governing for Wellbeing

**Governability** The case studies presented in this chapter show the great diversity that prevails within small-scale fisheries in terms of fishing demographics, as well as the sources of, and vulnerability to, poverty. Still, they illustrate that small-scale fishing people also can enjoy different dimensions of wellbeing and the values that are associated with each of them. Seen together, the case studies demonstrate that poverty and destitution are not inherent traits of small-scale fisheries, but that there is a potential to break out of the vicious circles that small-scale fisheries often face. Small-scale fishing people can indeed attain richer and more meaningful lives without abandoning their traditional livelihoods, the skills they have acquired from



living in community with others, and the social values that they are subscribing to. This is also why Kraan (2011), in her case study from Ghana, stresses the difference between creating alternative and 'supplemental' livelihoods, as the latter makes it possible to maintain small-scale fisheries while branching out to other sources of livelihoods, which relieve pressure on the resource in a way that is good for the long term wellbeing of the entire fishing population. Similarly, Islam (2011) mentions job diversification within the family household as a coping strategy, where some members find employment related to or outside the fishery, thus reducing vulnerability because one member's income can compensate for the loss of another's. In his case study from Bangladesh, "70 percent of ascending households have at least one earning member who does not fish" (Islam 2011: 87). The ability to diversify the economic base to include farming and tourism has also increased community wellbeing in the case of Thailand, as described by Chuenpagdee and Juntarashote (2011). How to move from poverty to wellbeing in small-scale fisheries is a governability challenge, which requires policies at the macro and micro-levels. Isaacs (2011) gives an illustration of the former in the small-scale fisheries policy launched in South Africa in 2007. Amarasinghe and Bavinck (2011) and Salas et al. (2011) illustrate the latter with examples of community development projects and the formation of community organizations like cooperatives as in Sri Lanka and Yucatan, Mexico, respectively. Such policy changes require concrete actions, including revisiting some of the basic values and principles on which these policies must be built.

The SSF Guidelines, and their human rights foundation, provide impetus for a full governability assessment at all governing orders of whether current small-scale fisheries policies and systems are indeed enhancing wellbeing. Interactive governance, as Kooiman and Bavinck (2005) define, is not only about solving problems, but also about creating opportunities. Thus, poverty is a problem that needs the creation of new opportunities for poor small-scale fishing people, which will then enhance wellbeing. New opportunities may also require new values (meta-order), new institutions (second order) and new skills (first order).

Creating opportunities for solving the governability problem of poverty and wellbeing requires a mechanism that makes problem definitions, images, norms, and values a matter of reasoned communication and interactive learning. These are, after all, the things people tend to disagree on (Chappel 2012). In many of the case studies, co-management institutions are initiated or presented as an opportunity for facilitating such deliberation and learning, as in the case of Malawi described by Hara (2011) and Mozambique by Menezes et al. (2011). Ideally, as Habermas (1985) theorized, it is the power of the argument that should determine which and whose values are relevant and which goals (meta-order) and means should be chosen (first and second order). This notion takes issue with the relativist position, which holds that images, norms and values are essentially subjective, beyond the scope of reasoning, ethical and empirical evaluation and criticism, an indeed beyond social science (see Sayer (2011) on this point). Instead, this perspective recognizes the plurality of meta-order values and principles, but maintains that in the governance process, values and principles should be regarded as hypotheses, and subject to validation, argumentation, deliberation, valuation and choice. Notably, choice, or

decisions made, is not the only outcome producing legitimacy. The process also needs to be legitimate since it is here that agendas are set, issues explored, arguments challenged, and preferences formed, all of which are important when decisions are made and implemented (Chappell 2012).

Interest conflict may be resolved through compromise, as illustrated by Andrade and Midrè (2011) in the case of Guatemala through a “Gentlemen’s Pact”, whereas conflicts over incompatible values need reasoned conversation, evolving like “a question-and-answer game” (Hoppe 2011: 243–4). This may be attained when stakeholders are able to reach “unity-in-disharmony”, if fisheries stakeholders can see where the others are coming from, how they think, and what concerns they have. Consensus would be the ideal outcome from a legitimacy point of view, but a governance system must be able to function with less. Still consensus would be something that interactive governance for wellbeing should strive for, and this “applies not just to policy decisions but also to the debates over the very values upon which our societies depend” (McGregor 2010: 348). Debates over small-scale fisheries values should be no different.

**Community** A conclusion that emerges from these studies is that, as a general rule, fisheries policies must be sensitive to the fact that small-scale fishing is intimately related to communities and that the opportunities for improving wellbeing are to be found not in the fishery *per se* but in the community where small-scale fishing people live and work. This observation is associated with the concept of embeddedness, initially devised by Polanyi (2001[1944]) and further developed by Granovetter (1985). Embeddedness relates to the idea that actors do not operate and see themselves as isolated from social context, but that values, preferences and goal oriented actions, like when making career, investment and livelihood decisions, are instead anchored in concrete, ongoing social relations often formed as tight networks, such as those that exist within local communities. It is exactly this feature of small-scale fishing that proponents of market-based fisheries management tools like individual transferable quotas are oblivious to, and these tools, as a consequence, not only transform the social relations of fishing but also remove (dis-embed) fishing activities from the immediacies of local context (Apostle et al. 1998; Høst 2015). As argued by Isaacs (2011) in the case of South Africa, a quota system designed on this logic has resulted in elite capture of rights at the expense of the poor.

People’s sense of wellbeing is ultimately rooted in private and community life and is played out as they go about their daily routine, and not necessarily confined to particular moments or outcomes. As Gough et al. (2010: 5) argue: “States of wellbeing/ill-being are continually produced in the interplay within the social, political, economic and cultural processes of human social being. It cannot be conceived just as an outcome, but must be understood also as a process.” Needless to say, the same rule also applies to small-scale fishing people. When small-scale fishers take pleasure in what they do and feel the sense of belonging in their livelihoods and their community, they enjoy subjective and relational wellbeing, irrespective of the material dimension. Thus, when Onyango (2011) argues that fishing is a way of life that can bring identity, joy and pride to the materially poor small-scale fishing

people of Lake Victoria, it is the first two dimensions of wellbeing he has in mind. The relational dimension of wellbeing is reinforced as a cascading effect throughout the system, as when one's own wellbeing contributes to those of others starting from the immediate family members and spilling over to the community and beyond. Collective wellbeing like that of a community cannot simply be seen as a derivative of individual wellbeing. It is primarily an outcome of an interactive process where people do things that matter also to other people, and are rewarded in return. Wellbeing in all three dimensions is something they produce and experience together. It is shared in a reciprocal fashion, and is the kind of dynamism that interactive governance must aim to facilitate and nurture.

**Participatory Democracy** Opportunities for governability and wellbeing must help facilitate broader involvement and participation of small-scale fisheries people in decision-making (first order), as exemplified by the case studies summarized above. For that to occur, something must happen at second order of governing; institutions must allow and facilitate small-scale fishing people to acquire a proactive role in fisheries governance. For this, many of the case studies focus on the process of governing and the potentials of instituting co-governance, like for Lake Malombe as described by Hara (2011). But such arrangements should not be confined to fishing but also to the broader community in order to make it possible to widen the representation of stakeholders, especially women. In some cases described in this study, cooperatives allow this when they are not specialized in fishing, but have a broader agenda, which involves the more general concerns of the community and its inhabitants. This also creates better opportunities for establishing a more diversified economy and a more complete system of services based on principles of self-help and empowerment.

The “difference principle” of Rawls, as previously mentioned, provides a rational approach to meta-order small-scale fisheries governance. The formulation of governing institutions (like legal rules and organizations that enforce them) in accordance with this principle would occur at the second order. For instance, principles of justice have to be translated into just institutions. But as Sen (2009) remarks on Rawls, one cannot stop there. One must be equally concerned with the way these institutions operate and the governing processes they engender. Thus, even if the institution is constructed in accordance with sound justice principles and values, for instance allowing the poor and the marginalized to be formally represented, one must also be able to see this in practice. The voices of these groups must also be heard in decision-making. If, as should be the case, governance systems allow small-scale fishing people to speak, there must also be someone who listens, learns and responds.

In interactive governance terms, Sen's concern with process thus relates to first-order governing. He argues that being actively engaged in governance is a matter of social justice. It matters who owns the problem and the solution. Autonomy and self-determination (authorship in one's own life – or “positive freedom (Berlin 1969), – freedom to act on the problem) is a cherished value, central to wellbeing (Griffin 1991; Brännmark 2006). This works both at the individual and the group level. People have a right (meta level) to be involved and to have their perceptions

of wellbeing recognized in the governance process. Meaningful participation in itself contributes to wellbeing, as it enhances the perception of autonomy and self-control. Wellbeing is therefore also an outcome of the empowerment that interactive governance brings.

Processes and outcomes of governance are linked to each other and to wellbeing and governability. Without comprehensive understanding of this connectivity, governability challenges and concerns in small-scale fisheries are not likely to be adequately addressed. The governability problem is complicated by the fact that existing governing systems are often as much part of the governability problem as the solution. For instance, governance may not simply be interactive enough or is exercised in a way that discriminates against small-scale fishing people.

Rittel and Webber (1973) state that poverty alleviation, as any other “wicked problem”, needs participatory and deliberative processes that bring moral dilemmas and justice concerns to the table: “Approaches ... should be based on a model of planning as an argumentative process in the course of which an image of the problem and of the solution emerges gradually among the participants, as a product of incessant judgment, subjected to critical argument” (Rittel and Webber 1973: 162). This is a claim that interactive governance would support. Stakeholder conflicts that occur at lower orders of governing may be easier to address if they are moved up the ‘ladder’: if they can see that what is being argued pragmatically and opportunistically at the first and second order has a basis in values, norms and principles at the meta-order (Kooiman and Jentoft 2009). If people are in conformity at the meta-order, it is more likely that they will find workable solutions through first and second order governing. It could also be that the meta-order is revisited and revised to align with the reality of the fisheries situations at the other orders. Otherwise, stakeholders would have to “agree to disagree” and move on to more practical issues at the lower orders.

## 13.6 Conclusion

In diverse, complex and dynamic systems like small-scale fisheries, interactive governance for poverty alleviation and wellbeing must work reactively and proactively. The governability challenge is to establish alignments between the orders. Meta-order values and principles must find their way into concrete institutional designs at second order and into operational routines and procedures at first order. It must address problems as they appear in the immediate term at first order and prevent them at second order from (re-)occurring in the long term. None of these challenges has easy solutions, as Hardin (1968) as well as Rittel and Webber (1973) pointed out. Instead, they are persistent concerns in societal planning and management, they are not solved once and for all, and they take place at all governing orders.

Small-scale fisheries governance must think of how to secure both the values of the sector, i.e. sustain and promote the functions and contributions of small-scale fisheries to society at large such as food security, and simultaneously care for the

values that are embedded within the sector, which are grounded in local communities and knowledge-based practices. As McGregor (2010: 221–22) says: “We cannot understand the human being without references to the collectivities, communities and societies within which they are located and live their lives. These different forms of collectives bring with them the social structures and ideologies within which human beings interact.” Without such deep understanding of small-scale fisheries and how they work relative to local communities from where they derive their values, governance systems are not only likely to fail but also do damage.

There is, in our view, no contradiction between values *of* and *in* the small-scale fisheries sector. Rather we posit that without the latter the former cannot be realized. Society has legitimate reasons to anticipate something from small-scale fisheries. However, small-scale fisheries cannot be expected to deliver on the expectations that rest upon them unless people who inhabit the sector find their livelihoods sustainable and lives meaningful. The wellbeing perspective in its three dimensions provides clarity into what the latter would require, whereas the interactive governance perspective provides clues for how to attain them. The fact that many of the values of wellbeing are intrinsic, i.e. worth maintaining or pursuing for their own sake, not utilitarian (Sumner 1996), but qualitative in nature, is no justification for ignoring them. Rather, as Kooiman and Jentoft (2009) hold, meta-order values and principles are not external or prior to the governance process but should be conceptualized as part of the interactive governance process. The challenge is not just to ensure that meta-order values translate into second and first orders of governing, but also that the reverse occurs. This means that meta-order values and principles are continuously ‘tested’ against experience and thus learn from what occurs at lower orders of governing.

Neither poverty nor wellbeing has official definitions and pre-described universal solutions. They therefore continue to be discussed, which they should be in their particular governance contexts. In reality this discussion, however, does not always give a voice to those whose wellbeing is at stake. Thus, in line with the normative criteria of good governance, a process is required where small-scale fishing people can for themselves reach understanding about what these concepts mean and imply in the situation they are in and what values are important and should be pursued. It is only those who live in poverty and whose wellbeing is at stake that can have authority over these meanings and values. Governance under these conditions must be interactive, as Kooiman et al. (2005) argue, informed and structured according to governance principles that stakeholders find to be good, can agree on, and which stand the test of widely accepted human rights’ standards, as stressed in the SSF Guidelines. Governance must then allow for stakeholder participation and a process of decision-making embedded in, rather than detached from, local communities.

Governance mechanisms are, often inadvertently, a cause of poverty and marginalization, as when they deny small-scale fishing people access to resources that are essential to their livelihoods. Governance does not always allow small-scale fishers a voice in the governing process, which they need in order to fully satisfy all three dimensions of wellbeing. This is also why we, drawing on Sen (2009), have submitted that justice also needs to take place at the first order of governance. But justice

is also happening at second order, for instance by building institutions that facilitate empowerment and co-governance. But important as they are, such institutions do not guarantee against justice failure, as illustrated, for instance, in the case of Mozambique, where co-governance arrangements at the community level have benefitted well-off fishers more than the poor (Menezes et al. 2011). Thus, despite their potential and demonstrated merits, such institutions need to be carefully crafted to avoid entrenching already existing inequities and power differentials through rules and capacity building that secure equal participation of men and women, captains and crew, sectors and communities (Jentoft and Chuenpagdee 2015b). The same can be said about customary institutions (Bavinck et al. 2015), like those that have existed for a long time at the village level in many countries. Because they often exhibit power differentials, they also would need to be reformed if they are not accommodating good governance principles and values. With the SSF Guidelines, small-scale fishing people can legitimately claim that participation is not just a functional mechanism, something that will help solving wicked governability problems, such as IUU (illegal, unregulated and unreported) fishing, but a fundamental value, a human right, related to social justice and human dignity, and hence wellbeing. We have argued in this chapter that it is a right that should be secured and implemented at all orders of governance.

## References

- Amarasinghe O, Bavinck M (2011) Building resilience: fisheries co-operatives in Southern Sri Lanka. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 383–406
- Andrade H, Midré G (2011) The merits of consensus: small-scale fisheries as a livelihood buffer in Livingston, Guatemala. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 437–448
- Apostle R, Barrett G, Holm P, Jentoft S, Mazany L, McCay B, Mikalsen K (1998) *Community, state, and market on the North Atlantic Rim: challenges to modernity in the fisheries*. University of Toronto Press, Toronto
- Bailey C (1988) The political economy of marine fisheries development in Indonesia. *Indonesia* 46:25–38
- Barber B (1984) *Strong democracy. Participatory politics for a new age*. University of California Press, Berkeley
- Barkin S, DeSombre E (2013) *Saving global fisheries: reducing fishing capacity to promote sustainability*. The MIT Press, Cambridge, MA
- Bavinck M (2011a) The mega-engineering of ocean fisheries: a century of expansion and rapidly closing frontiers. In: Brunn SD (ed) *Engineering Earth: the impacts of mega-engineering projects*. Kluwer, Dordrecht, pp 257–273
- Bavinck M (2011b) Wealth, poverty, and immigration: the role of institutions in the fisheries of Tamil Nadu, India. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 173–191
- Bavinck M, Jentoft S (2011) Subsidiarity as a guiding principle for small-scale fisheries. In: Chuenpagdee R (ed) *World small-scale fisheries. Contemporary visions*. Eburon Academic Publishing, Delft, pp 311–322

- Bavinck M, Chuenpagdee R, Jentoft S, Kooiman J (eds) (2013) *Governability of fisheries and aquaculture. Theory and application*. Springer Science, Dordrecht
- Bavinck M, Jentoft S, Pascual J, Marciniak B (2015) Interactive coastal governance: the role of pre-modern fisher organizations in improving governability. *Ocean and Coastal Management*. <http://dx.doi.org/10.1016/j.ocecoaman.2015.05.012>
- Béné C (2003) When fishery rhymes with poverty: a first step beyond the old paradigm on poverty in small-scale fisheries. *World Dev* 31(6):949–975
- Berlin I (1969) *Four essays on liberty*. Oxford University Press, Oxford
- Brännmark J (2006) Leading a life of one's own: on well-being and narrative autonomy. *R Inst Philos Suppl* 59:65–82
- Butcher JG (2004) *The closing of the frontier – a history of the marine fisheries of Southeast Asia. 1850–2000*. KITLV Press, Leiden
- Chappell Z (2012) *Deliberative democracy: a critical introduction*. Palgrave MacMillan, Houndmills Basingstoke
- Charles A (1998) Fishery socioeconomics: a survey. *Land Econ* 64:276–295
- Chuenpagdee R, Degnbol P, Bavinck M, Jentoft S, Johnson D, Pullin R, Williams S (2005) Challenges and concerns in fisheries and aquaculture. In: Kooiman J, Bavinck M, Jentoft S, Pullin R (eds) *Fish for life: interactive governance for fisheries*. Amsterdam University Press, Amsterdam, pp 25–37
- Chuenpagdee R, Jentoft S (2011) Situating poverty: a chain analysis of small-scale fisheries. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 27–42
- Chuenpagdee R, Jentoft S (2013) Assessing governability: what's next? In: Bavinck M, Chuenpagdee R, Jentoft S, Kooiman J (eds) *Governability of fisheries and aquaculture. Theory and application*. Springer Science, Dordrecht, pp 335–349
- Chuenpagdee R, Juntarashote K (2011) Learning from the experts: attaining sufficiency in small-scale fishing communities in Thailand. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 309–331
- Chuenpagdee R, Liguori L, Palomares MLD, Pauly D (2006) Bottom-up, global estimates of small-scale fisheries catches. *Fish Cent Res Rep* 14(8). <http://www.fisheries.ubc.ca/publications/>
- Chuenpagdee R, Jentoft S, Bavinck M, Kooiman J (2013) Governability – new directions in fisheries governance. In: Bavinck A, Chuenpagdee R, Jentoft S, Kooiman J (eds) *Governability in fisheries: theory and applications*. Springer, Dordrecht, pp 3–30
- Coulthard S, Johnson D, McGregor A (2011) Poverty, sustainability and human wellbeing: a social wellbeing approach to the global fisheries crisis. *Glob Environ Chang* 21:453–463
- Dasgupta P (1993) *An inquiry into well-being and destitution*. Clarendon Press, Oxford
- Eide A, Bavinck M, Raakjær J (2011) Avoiding poverty: distribution of wealth in fisheries. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 13–25
- FAO (2009) *The state of world fisheries and aquaculture 2008*. Food and Agriculture Organization, Rome
- Ginkel RV (2009) *Braving troubled waters: sea change in a Dutch Fishing Community*. Amsterdam University Press, Amsterdam
- González M (2011) To make a fishing life: community empowerment in small-scale fishing I the Pearl Lagoon, Nicaragua. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 275–308
- Gough I, McGregor A, Camfield L (2010) Theorizing wellbeing in international development. In: Gough I, McGregor JA (eds) *Wellbeing in developing countries*. Cambridge University Press, Cambridge, pp 3–43
- Granovetter M (1985) Economic action and social structure: the problem of embeddedness. *Am J Sociol* 91:481–493
- Griffin JP (1991) Against the taste model. In: Elster J, Roemer JE (eds) *Interpersonal comparisons of well-being*. Cambridge University Press, Cambridge

- Gutmann A, Thompson D (1996) *Democracy and disagreement*. The Belknap Press of Harvard University Press, Cambridge, MA
- Habermas J (1985) *The theory of communicative action*. Volume 1: reason and the rationalization of society. Beacon Press, Boston
- Hara M (2011) Community response: decline of the Chambo in Lake Malawi's South Arm. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 251–273
- Hardin G (1968) The tragedy of the commons. *Science* 162:1243–1248
- Hoppe R (2011) *The governance of problems; puzzling, powering and participation*. Policy Press, Bristol
- Høst J (2015) *Market-based fisheries management. Private fish and captains of finance*. Springer Science, Dordrecht
- Hulme D, Toye T (eds) (2007) *Understanding poverty and wellbeing: bridging the disciplines*. Routledge Publ, London
- Isaacs M (2011) Creating action space: small-scale fisheries policy reform in South-Africa. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 359–382
- Islam MM (2011) Living on the margin: the poverty-vulnerability nexus in the small-scale fisheries of Bangladesh. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 71–95
- Jentoft S (1999) Healthy fishing communities: an important component of healthy fish stocks. *Fisheries* 24(5):28–29
- Jentoft S (2014) Walking the talk: implementing the international voluntary guidelines for small-scale fisheries. *Maritime Studies*. <http://www.maritimestudiesjournal.com/content/13/1/16>
- Jentoft S, Chuenpagdee R (eds) (2015a) *Interactive governance for small-scale fisheries: global reflections*. Springer Science, Dordrecht
- Jentoft S, Chuenpagdee R (2015b) Assessing governability of small-scale fisheries. In: *Interactive governance for small-scale fisheries: global reflections*. Springer Science, Dordrecht, pp 17–37
- Jentoft S, Eide A (eds) (2011) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht
- Jentoft S, Midré G (2011) The meaning of poverty: conceptual issues in small-scale fisheries research. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 43–68
- Jentoft S, Onyango P, Islam MM (2010) Freedom and poverty in the fishery commons. *Int J Commons* 4(1):345–366
- Jentoft S, Eide A, Bavinck M, Chuenpagdee R, Raakjær J (2011) A better future: prospects for small-scale fishing people. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 451–470
- Knudsen S, Koçak H (2011) Through boom and bust: coping with poverty in sea snail fisheries on the Turkish Black Sea coast. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 221–249
- Kooiman J (2003) *Governing as governance*. Sage Publications, London
- Kooiman J, Bavinck M (2005) The governance perspective. In: Kooiman J, Bavinck M, Jentoft S, Pullin R (eds) *Fish for life. Interactive governance for fisheries*. Amsterdam University Press, Amsterdam, pp 11–24
- Kooiman J, Jentoft S (2009) Meta-governance: values, norms and principles, and the making of hard choices. *Public Adm* 87(4):818–836
- Kooiman J, Bavinck M, Jentoft S, Pullin R (eds) (2005) *Fish for life. Interactive governance for fisheries*. Amsterdam University Press, Amsterdam
- Kraan M (2011) More than income: the Anlo-Eve Beach Seine Fishery in Ghana. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 147–172



- Krishna A (2010) *One illness away: why people become poor and how they escape poverty*. Oxford University Press, Oxford
- Marciniak B (2011) Vanished prosperity: poverty and marginalization in a small-scale Polish fishing community. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 125–146
- McCay B (2005) Gender, globalization, and a tragic choice on Fogo Island, Newfoundland. In: Neis B, Binkley M, Gerrard S, Maneschly MC (eds) *Changing tides: gender, fisheries and globalization*. Fernwood Publications, Halifax, pp 116–132
- McCay B, Jentoft S (1996) From the bottom up. Participatory issues in fisheries management: issues in institutional design. *Soc Nat Resour* 9(3):237–250
- McCay B, Jentoft S (1998) Market or community failure? Critical perspectives on common property research. *Hum Organ* 57(1):21–29
- McGregor JA (2010) Researching wellbeing: from concepts to methodology. In: Gough I, McGregor JA (eds) *Wellbeing in developing countries: from theory to research*. Cambridge University Press, Cambridge, pp 316–350
- Menezes A, Eide A, Raakjær J (2011) Moving out of poverty. Conditions for wealth creation in small-scale fisheries in Mozambique. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 407–425
- Nguyen KM, Flaaten O (2011) Facilitating change: a Mekong Vietnamese small-scale fishing community. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 335–357
- Onyango P (2011) Occupation of last resort? Small-scale fishing in Lake Victoria, Tanzania. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 97–124
- Ostrom E (1990) *Governing the commons: the evolution of institutions for collective action*. Cambridge University Press, Cambridge
- Panayotou T (1982) *Management concepts for small-scale fisheries*, FAO Fish Technical Paper 228. FAO, Rome
- Polanyi K (2001 [1944]). *The great transformation – the political and economic origins of our time*. Beacon Press, Boston
- Qizilbash M (1998) The concept of well-being. *Econ Philos* 14(1):51–73
- Rawls J (1971) *A theory of justice*. Oxford University Press, Oxford
- Rittel HWJ, Webber MM (1973) Dilemmas in a general theory of planning. *Policy Sci* 4:155–169
- Salas S, Björkan M, Bobadilla F, Cabrera MA (2011) Addressing vulnerability: coping strategies of fishing communities in Yucatan, Mexico. In: Jentoft S, Eide A (eds) *Poverty mosaics: realities and prospects in small-scale fisheries*. Springer Science, Dordrecht, pp 195–220
- Sayer A (2011) *Why things matter to people: social science, values and ethical life*. Cambridge University Press, Cambridge
- Sen A (2001) *Development as freedom*. Alfred A. Knoff, New York
- Sen A (2009) *The idea of justice*. Penguin Books, London
- Smith HD (2000) The industrialization of the world ocean. *Ocean Coast Manag* 43:11–28
- Song A, Chuenpagdee R, Jentoft S (2013) Values, images, and principles: what they represent and how they may improve fisheries governance. *Mar Policy* 40(2013):167–175
- Sumner LW (1996) *Welfare, happiness, and ethics*. Clarendon Press, Oxford
- Taylor TE (2013) Well-being and prudential value. *Philos Public Policy Q* 31(2):10–17
- Urquhart J, Acott TG, Symes D, Zhao M (eds) (2014) *Social issues in sustainable fisheries management*. Springer Science, Dordrecht
- Verelst B (2013) Managing inequality: the political ecology of a small-scale fishery, Mweeru-Luapula, Zambia. *J Polit Ecol* 20:14–36
- Weeratunge N, Béne C, Siriwardane R, Charles A, Johnson D, Allison EH, Nayak PK, Badjeck M-C (2014) Small-scale fisheries through the wellbeing lens. *Fish Fish* 15(2):255–279

**Svein Jentoft** is a sociologist and a Professor at the Norwegian College of Fishery Science at UIT – The Arctic University of Norway. Throughout his career, he has worked extensively on fisheries and coastal issues, including resource management, industrial organization and community development in his native Norway, as well as in many other countries. Jentoft has published more than 25 books and numerous journal articles on fisheries and coastal governance. He is a founding member and cluster leader within the Too Big To Ignore (TBTI) global partnership for small-scale fisheries research. He is the lead editor of the two recent TBTI books – *Interactive governance for small-scale fisheries: global reflections* (2015) and *The small-scale fisheries guidelines: global implementation* (2017), published in the MARE Publication Series (Springer), of which he is the co-editor with Maarten Bavinck.

**Ratana Chuenpagdee** is Professor at Department of Geography, Memorial University of Newfoundland, St. John's, Canada. She held the position of Canada Research Chair in Natural Resource Sustainability and Community Development at Memorial University from 2006–2016. Her research emphasizes interdisciplinary approaches to coastal, fisheries, and ocean governance, focusing particularly on small-scale fisheries, marine protected areas, community-based management, and food security. She has worked in several countries including Cambodia, Canada, Malawi, Mexico, Spain and Thailand. Dr. Chuenpagdee is a project director of the Too Big To Ignore (TBTI; [toobigtoignore.net](http://toobigtoignore.net)) global partnership for small-scale fisheries research.

# Chapter 14

## Reflections on Social Wellbeing and the Values of Small-Scale Fisheries: Implications for Research, Policy and Management

Tim G. Acott, Derek S. Johnson, Natasha Stacey, and Julie Urquhart

**Abstract** The contributors to this volume engaged in different ways with social wellbeing as an approach through which to investigate, identify and make visible a broad range of values associated with small-scale fisheries. In this concluding chapter, we highlight four themes that emerge from these contributions that are crucial for thinking about the diverse values of small-scale fisheries: (1) the broader context of transition; (2) integrating environmental considerations into wellbeing through co-construction and place; (3) recognizing the fertile, yet productively unsettled idea that value represents for small-scale fisheries, and; (4) putting into practice the social wellbeing approach to values that this volume develops. We point to connections between our approach and the FAO *Voluntary Guidelines for Securing Sustainable Small-scale Fisheries in the Context of Food Security and Poverty Eradication*.

**Keywords** Values • Social wellbeing • Transition • Co-construction • Relationality • Ecosystem services • Applied lessons

---

T.G. Acott (✉)

Department of History, Politics and Social Sciences, University of Greenwich,  
Old Royal Naval College, Park Row, London SE10 9LS, UK  
e-mail: [t.g.acott@gre.ac.uk](mailto:t.g.acott@gre.ac.uk)

D.S. Johnson

Department of Anthropology, University of Manitoba, Winnipeg, MB R3T 2N2, Canada  
e-mail: [derek.johnson@umanitoba.ca](mailto:derek.johnson@umanitoba.ca)

N. Stacey

Research Institute for the Environment and Livelihoods, Charles Darwin University,  
Darwin, NT, Australia  
e-mail: [natasha.stacey@cdu.edu.au](mailto:natasha.stacey@cdu.edu.au)

J. Urquhart

Centre for Environmental Policy, Imperial College London,  
14 Prince's Gardens, South Kensington Campus, London SW7 1NA, UK  
e-mail: [j.urquhart@imperial.ac.uk](mailto:j.urquhart@imperial.ac.uk)

## 14.1 Introduction

A key aim of this book was to make explicit the contributions of small-scale fisheries (SSF) to society and to identify appropriate methods or tools for achieving this. The intention was to provide a conceptually and methodologically nuanced foundation upon which arguments for the societal support for SSF can be articulated. To address this aim two key objectives were identified. First, to develop a conceptual basis arguing for the importance of SSF built around an understanding of social wellbeing and values. These concepts bring out the relationality of the contributions of SSF. Second, to practically ground this conceptual underpinning in a variety of different case examples drawn from around the world. The volume was produced by asking a range of authors to draw from their existing experience in SSF and write a new contribution based on reflections about the social wellbeing framework and the multiple values that implies. The intention was not necessarily to generate new data through fieldwork but rather to explore how an explicit consideration of social wellbeing and multiple values could provide the foundation for articulating the importance of SSF to society. This exercise has produced a rich and exciting collection of chapters that contribute to addressing the book's goals. It is the purpose of this concluding chapter to draw out the key lessons that have been learnt and distil the themes that have emerged.

However, before setting to that task it is worthwhile revisiting the International Voluntary Guidelines for Securing Small-Scale Fisheries (FAO 2015). In the context of food security and poverty eradication, this document represents a global consensus on principles and guidance for SSF governance and development. In the guidelines we are reminded that SSF are a neglected sector, even though they are a sector that is “rooted in local communities, traditions and values” (p. v). Among other aims, the guidelines were intended to support the visibility of SSF and to promote their worldwide importance for society. A particularly significant statement in the guidelines suggests that “Despite their importance, many small-scale fishing communities continue to be marginalized, and their contributions to food security and nutrition, poverty eradication, equitable development and sustainable resource utilization – which benefits both them and others – is not fully realized” (p. x). This raises the question, are not fully realized by whom? While it is certainly the case that the full benefits are not realized by society, it is perhaps also the case that the intimate way that SSF connects local communities into broader society means that the fishing communities themselves are perhaps not completely aware of the full socio-cultural value of their practices, although they clearly are aware how important their activities are to themselves.

Although wellbeing is a concept that is used in the guidelines, its meaning is not articulated in detail. The contributions to this book have demonstrated that adopting a social wellbeing perspective provides a rigorous way to reveal the multiple values that SSFs make to society, while also showing how those values are socially, spatially, and historically contextualized. Additionally, the guidelines do promote the collection of data, including cultural and social data, which is relevant for

decision-making on sustainable management of SSFs. We believe that our book has successfully demonstrated how a broad range of disciplinary perspectives can be used to investigate the intimate connections between the wellbeing of people and the relational connections to their fisheries. As such we have helped to elaborate and develop some of the key themes present in the FAO guidelines. Looking across all the chapters presented in this volume, four key themes emerge: SSF in transition; the power of a relational perspective; understanding the diversity of value in relation to small-scale fisheries; and applying the lessons learnt. The following four sections discuss each of these themes.

## 14.2 SSF in Transition

Concern for the wellbeing of participants in SSF is an important consideration that guides the motivations of researchers, policy makers and resource managers. Issues include the viability of small-scale fishing populations and communities and their ability to continue to engage in their livelihoods in the context of ecosystems that are increasingly degraded. These concerns relate to the recognition that, globally, SSF are in a period of unparalleled transition, both in terms of rapidity and intensity. This is a central emergent theme of this volume. Students of SSF have long drawn attention to the intensity of change that the latter are undergoing in the face of broad economic and political pressures (Brox 1971; McGoodwin 1990; Platteau 1989; Thomson et al. 1983). Given the conceptual orientation of this volume, this concern with change is no surprise given that the transition in SSF, and the disruptions it poses, motivate the search for the values of SSF as they are threatened. Nonetheless, it is significant that so many of this volume's contributors situated their analyses implicitly or explicitly in the context of transition or with regard to managing transition.

Among the contributions to the volume, Lokuge and Munas (Chapter 11) provide us with perhaps the most useful theoretical tool beyond the volume's introduction to make sense of the nexus between transition and value in SSF: the moral economy. As they note, the idea of moral economy views economic relations and economic decision-making as embedded within locally particular matrices of value. In the neo-Marxist tradition of Polanyi (1944), Thompson (1991), and economic anthropology, moral economy sees the economy as an ongoing product of culturally, historically, and politically situated social relations within which there are certain socially-recognized standards for economic behavior (Pinkerton 2015). Lokuge and Munas show, specifically, how religion informs, and renders historically and spatially distinct, fisher social and economic behavior in Sri Lanka. The landscape of three co-existing systems of religious belief, and a larger context of nationalist ideology, create a complex backdrop within which fishers engage in social relations and make decisions. Choice of action for fishers can be quite pragmatic as they engage in 'forum shopping' among the options they face. Economic and livelihood decisions, thus, might be made in relation to non-economic religious motivations or

may reflect narrower economic calculations. Choices, and the normative inspirations they draw on, in this analysis are also clearly not politically neutral. Decisions about techniques of fishing by Muslim fishers, for example, can equally be read either as flagrant contraventions of ecological and social norms, or as statements of agency and resistance in the face of injustice. The broad lesson from Lokuge and Munas' argument, however, is that fishers act in relation to sometimes inconsistent sets of values that limit their options but also provide opportunities for innovation and creativity. Current transitions in fisheries change value landscapes and, often, threaten to impoverish them through state or market driven simplifications (Jadhav, Chap. 7 this volume).

While Lokuge and Munas are the only authors in the volume to not directly engage with the social wellbeing approach, their attention to the moral economy of transition is complementary to the wellbeing perspective. They show how history and religious difference can generate mutually contradictory wellbeing strategies that pose significant headaches for fisheries governance but are nonetheless crucial considerations for policy that seeks to navigate the competing ways in which people derive value from fisheries.

The contributors to this volume describe at least five kinds of transition that are currently taking place in small-scale fisheries: economic, technological, ecological, political, and governance. These transitions are linked, and interlinked, in complex and locally-specific ways to the general moral economic transitions that the respective SSF are undergoing. It is clear from all the cases in this volume that the different aspects of the transitions that are taking place in SSF result from increasingly dense linkages and powerful drivers across scale. Irobo's Brazilian case is perhaps most marked in this regard. The author discusses how the way in which the residents of Ponta Negra seek to realize the normative value of *melhorar* (self-improvement) has been thoroughly shaped by the history of land and sea-related political interventions for development and resource governance. It also reflects, however, the contemporary economic opportunities of pound net fishing and tourism, with their specific technological requirements; ecology both as a driver of governance intervention and economic adaptation; and local ties of reciprocity that link individuals and households. This distinctive and multi-layered context has created different kinds of moral economic possibilities depending on how different fishers and households are positioned economically and socially.

Consistent with Gibson-Graham's (1996) analysis of capitalist economies as varied and patchwork things, Jadhav (Chapter 7) uses Indian national survey data to underscore the highly uneven economic terrain of SSF in India. This is true as much for the variables that he highlights as for the presence and strength of fisher institutions along the coast. As Bavinck (Chapter 8) notes for Tamil Nadu, small-scale fisher governance institutions are motivated by their concern for fairness in access. This has been threatened for many years by the state-sponsored mechanized sector but also by technological changes within the small-scale sector. Bavinck notes that the response to these changes from within the SSF sector varies considerably; for some, strongly normative positions about distributional justice are taken while for others more lackadaisical or pragmatic approaches are taken. Johnson et al.

(Chapter 12) also point to the variable texture of the moral economy of the Gujarat coast, where an intense economic and technological transition has taken place in the state fishery. They note how gender, caste, religion, technology, and place have led to a diversity of responses to, and perceptions of, fisheries transition.

In the Korean and Norfolk coast cases, the economic transition in fisheries peaked in years past and in both cases only a remnant of formerly vibrant fisheries remains. In both cases, however, small-scale fisheries retain considerable cultural and political salience. Consistent with Acott and Urquhart's (Chapter 2) arguments about place, both the places of Yeonpyeong and Cromer and Sheringham are physically imbued with a nostalgia for small-scale fishing. As White (Chapter 3) shows for the Norfolk coast, however, the commodifiable aesthetic of fishing on the Norfolk coast conflicts with actual beach-based fishing activities, which the new residents of the area sometimes find irritating. Song (Chapter 6) shows, additionally, how SSF can actually be desirable for political reasons: they physically stake out space in border areas between belligerent countries. Moral economies, in this case, shade in to literal political economies. The cultural fabric of national moral economies crops up in a different guise in Islam and Chuenpagdee's (Chapter 9) analysis of the Bede migrant fishers of Bangladesh. The Bede, who have continued in their ancestral boat-dwelling occupation, have survived better than their land-based compatriots by successfully adapting to hilsa fishing. As hilsa are emblematic of success in culturally-specific Bangladeshi terms, the boat-based Bede have effectively countered the historical economic and social discrimination they faced by their association with this nationally prestigious delicacy.

Political borders and other kinds of national and institutional exclusions can also conflict with small-scale fisher economies and collective identity, as is the case for the Sama-Bajau of Southeast Asia. Stacey et al. (Chapter 5) suggest, in effect, that support for the Bajau would require the instatement of a new national moral economy that recognizes how the Sama-Bajau's fluid values contribute to national wellbeing. Borders can also exclude and marginalize, as Belton et al. (Chapter 10) argue for the Rohingya in southern Bangladesh. Their economic vulnerability as labourers in fish drying stems directly from their stateless status. Belton's larger argument also helps to add very important nuance to arguments about transitions and moral economies. Transitions can dramatically heighten vulnerabilities, as the Rohingya case shows. Moral economies need not always be benign, either. Through another case from Kishoreganj District in northern Bangladesh, Belton et al. show how moral ideas of duty and gendered inequality can lead to women engaging in economic self-exploitation in SSF out of respect for larger norms of appropriate behaviour. From a women's equality point of view, in other words, this is a perverse fisheries moral economy.

Moral economy is echoed in Gibson-Graham's (1996) feminist geographical de-essentialization of capitalism. They point instead to capitalism as a catch-all simplification of a breadth of economic relations that not only include non-capitalist elements, but indeed depend upon them for their viability (Gibson-Graham 2011; St. Martin 2007). Gibson-Graham's analysis also points to latent possibilities within

particular configurations of capitalism for community-building change. As geographers, Gibson-Graham's approach also has explicit links to the co-constructionist understanding of place that we advocate in this volume. Both approaches see economic and ecological relations as emerging in particular geographical, social, and cultural spaces, and both decenter the primacy of human agency in order to bring out the relationality between humans and non-human others.

### **14.3 Thinking Relationally, Ecosystem Services and Co-constructionism**

The idea of transition opens up a temporal understanding of relations between diverse human and non-human entities in terms of change and process. This is where the authors in this volume have reflected back onto the concept of social wellbeing and explored how this idea intersects with other conceptual fields. Acott and Urquhart explicitly use the language of co-construction to talk about how values emerge from relations between nature and society. This narrative articulates how humans are part of nature rather than just users of it. There is a striking similarity between the language of co-construction, with its emphasis on process, fluidity and relationality and the language of the social wellbeing concept. The prefix 'co-' can refer to interactions between people and ecosystems and also interactions between people (Fischer and Eastwood 2015).

Such insights begin to show how social wellbeing intersects with other frameworks within which decisions are made about the management of natural resources, for instance the importance of ecosystem services. The scale of the reach of this concept is illustrated by the suggestion it has taken on features of a Kuhnian paradigm (Potschin and Haines-Young 2011). If this is correct then we need to reflect that ecosystem services are not just providing a guide for resource management, they are also saying something fundamental about relations between nature and society. Critics have pointed out that those relations are based on an overriding instrumental valuation of nature for people (for instance Fischer and Eastwood 2015; Satz et al. 2013; Norgaard 2010; Scholte et al. 2015) and a poorly articulated understanding of cultural ecosystem services (Daniel et al. 2012; Chan et al. 2012; Pröpper and Haupts 2014). In other words there is considerable scope within ecosystem services to rethink how interactions between nature and society are conceptualized (Fischer and Eastwood 2015). The way the chapters in this book relate to this theme reveals how relationality in the social wellbeing concept can be used as a foundation for developing a socio-ecological perspective on people and nature interactions that underpins a more nuanced understanding of ecosystem services.

The collection of chapters in this volume has sought to explore the ties between fishers and their environments in numerous ways, grounded in a range of interpretations of social wellbeing. Each chapter has focused on a slightly different emphasis



in terms of nature/society relations. However, in all cases, every author has recognized the importance of the ecological resource underpinning fisheries operations although analytical effort has been directed at trying to understand the social and cultural values that form a network of associations binding communities to their particular fishery enterprise. Looking across the contributions we can see a rich and deep engagement with how fishers and their resource exist as webs of relational associations.

Whereas Acott and Urquhart focus on conceptual development, subsequent chapters develop that perspective from a more applied position, some explicitly others implicitly. White used the three-dimensional social wellbeing perspective to show how a fluid, dynamic relationality can capture the associations between material and subjective dimensions in relation to sense of place. The qualitative approach adopted allows the divergent values of SSF to emerge in relation to place meaning, identity, and wellbeing. Dimensions of value revolve around resistance to change, tradition, globalization, and loss of identity, all grounded in the materiality of two small towns on the North Norfolk coast of England.

Whereas White uses a qualitative approach, Jadhav presents a quantitative study of SSF in India and conveys a fascinating insight into how social wellbeing brings a level of sophistication to our understanding of SSF and how this can be accessed through large data sets. Implicit in Jadhav's conceptualisation of the fisheries is a relational, fluid, and dynamic place-based approach that is co-constructed between society and the ecosystem. While fisheries can be understood in terms of people and institutions in particular places, Jadhav also draws our attention to the ecological conditions, for instance tapping of marine resources to 50 m depth and the shift to harvest offshore deep-sea resources. In other words, the social wellbeing framework implicitly contextualizes social as well as ecological relational associations in this study.

The idea of a dynamic, fluid, process relationality is addressed in numerous papers. Bavinck describes the operations of *ur panchayats* and portrays them in terms of wellbeing as a continually emerging process with fishing communities and the fish resource tied together by numerous relational associations. In Chap. 3, Idrobo shows how entanglements with the ecological resource through time have had a range of impacts in the social realm, not least being a linchpin of the local economy and reducing a sense of poverty and isolation. However, the fluid nature of these associations is evident as dependence on cash income and urban centres has increased. This chapter makes it explicit how a social wellbeing approach can capture the relations between the ecological resource and changing circumstances in the community.

The arguments revolving around the co-construction and relationality of value have particular resonance with current debates in ecosystem services. James (2015) argues that the ecosystem services framework is unable to accommodate sense of place because of its inherent instrumentality. He argues that values associated with sense of place are 'constitutive' rather than instrumental. This idea speaks to the arguments presented throughout the chapters of this book that suggest the possibility of a more nuanced understanding of ecosystem services where values emerge

through a co-constructed fluid relationality. Such an approach may go some way to addressing the agenda set out by Fish (2011): “Advocates of the ecosystem services framework need to develop a more elaborate understanding of how a rich and variegated term such as ‘well-being’ maps back onto the services that nature provides” (p. 673). By using the social wellbeing approach to draw out the multiple co-constructed nature of SSF the chapters in this book show how a sophisticated interpretation of the wellbeing idea can provide a foundation to engage with a broad emerging debate around ecosystem services, the management of natural resources and tenuous distinctions between nature and culture.

If understanding SSF in relation to transition, process and relationality is a key theme that has emerged throughout this book, perhaps the most significant area for reflection is how SSF give rise to multiple values in nature and society. Understanding the importance of this aspect is vital if we are to address the contention in the Voluntary Guidelines for Securing Small-Scale Fisheries (FAO 2015) that the full benefits of SSF are not realized.

#### 14.4 Diversity of ‘Values’ for SSF

A key contribution of this book is the presentation of a range of practical case studies from different geographical contexts around the world, which demonstrate how a three-dimensional approach to wellbeing can help to elucidate the broad importance of SSF. However, this three dimensional approach is linked to different understandings of the idea of value across the range of chapters in this volume. While some authors explore ‘value’ from a deeply critical perspective, others use the word value as a replacement for ‘importance’. Often the meaning of ‘value’ seems to be assumed, with some reflection given to different types of value such as held values, assigned values, relational values, material values, subjective values and so forth. Some further unpacking of what is meant by ‘value’ is clearly needed, along with analyzing how our chapter authors have interpreted and applied those understandings.

Linguistically, the word ‘value’ can be used as a noun or a verb, with different meanings. As a noun it is often used to denote the importance, worth or usefulness of something, or as a judgement of what is important in life, with ‘values’ considered as the principles or standards of behaviour. As a verb ‘to value’, the term may mean an estimation of the material or monetary worth of something or the degree to which one considers something (or someone) important or having benefit. Perhaps one of the difficulties is that this single word ‘value’ represents quite different philosophical and ethical ontologies reflecting both consequentialist (e.g. utilitarian) and deontological perspectives. Consequentialism underpins welfare economics and a view that ‘the end justifies the means’ if the consequence is bringing about a greater good or increased economic or social welfare (Darwall 2011). However, a deontological position recognizes that there are inherent, inviolable and absolute rights and duties that humanity has to abide to, despite the consequences or utility to humankind

(Des Jardins 2001). Thus, we see ‘value’ used to define both economic and non-economic values, as well as higher-level moral and ethical values.

The majority of chapters in this volume consider some form of subjective values (derived from subjective preferences and are often differentiated as non-instrumental and instrumental values) that are attributed to SSF. They are largely instrumental values, focused on understanding how SSF contribute to human wellbeing in coastal communities. Only one of the chapters, by Jentoft and Chuenpagdee (Chapter 13), includes explicit attention to deliberation on values and principles, such as justice, and the social norms that underpin their argument for interactive governance.

Acott and Urquhart, while addressing subjective values, recognize that ‘use’ values are not always tangible, but are often intangible and invisible – an observation that is returned to in a number of the volume’s chapters. In their focus on social and cultural values or cultural ecosystem services that are derived from SSF, Acott and Urquhart adopt a place based co-constructionist perspective allied to social wellbeing to make visible the often invisible, but valued, dimensions of SSF. This study demonstrates the limitations of monetary approaches, which are often inadequate for capturing the full range of SSF use values, with consequences for how these values are addressed by policy makers. Similarly, Jadhav argues for a more nuanced analysis of the values associated with India’s SSF beyond simple economic measures. He cautions against reliance on econometric approaches that may fail to capture the invisible values discussed in both Acott and Urquhart’s chapter, and by White, who adopts a place-based approach to explore links between SSF resilience and identity.

Lokuge and Munas also address intangible values in their important contribution around the idea of faith-based values. Through a SSF case study in Trincomalee in Sri Lanka, the authors assess how religion shapes the moral economy of fishing communities for and between Buddhists, Hindus and Muslims with rituals such as offerings and sacrifices providing a sense of social solidarity. Islam and Chuenpagdee focus less on a critical discussion of value but elaborate on the different ways that SSF is important to people. Again, though, the authors make connection between material, tangible values such as livelihoods, and intangible socio-cultural values, both important for sustainable SSF and enhanced wellbeing of those who depend on those fisheries. Idrobo considers a variety of changes that have forced Brazilian small-scale fishers to adapt to a changing set of values, with impacts on their livelihoods alongside social and cultural values. Here, again, there is a tension between balancing economic imperatives (i.e. providing a livelihood) for the members of the village of Ponta Negra, with the intangible, but important, values of community identity and fishing as ‘a way of life’.

Stacey et al. attempt to address this tension by providing a depiction of fluid values that is linked to four tangible/intangible value sets (spatial mobility, autonomy and identity, resource use patterns and kinship ties) to help understand the dynamic existence of the Sama-Bajau in Southeast Asia. A wellbeing analysis helps to reveal values around three analytical dimensions with process and relationality key elements in their proposed framework. The emergent values are described as fluid webs of relationships defined around socio-political and trading networks.

Similarly, Song identifies eight value schemes, twenty-four unique values and four value orientations (better world, good life, personal virtues and outward aspirations) to recast the three dimensions of wellbeing as 'values'. Song uses a 'value-contribution matrix' to help make visible the values of SSF to policy makers. Emphasis is placed on the importance of assigned values and how these are understood from a relational perspective. Within Song's analysis there is implicit recognition of a co-constructed understanding of values emerging as the interplay of the objective, subjective and relational aspects of social wellbeing. Dependency on the swimming crab fishery highlights the importance of the material ecology that the industry relies on, and a social wellbeing analysis begins to draw out the multiple dimensions of value that are spun between nature and society.

Belton et al. in their study of labour, identity and wellbeing in Bangladesh's dried fish value chains directly address the multidimensional values associated with fisheries and consider how values are embedded into networks of relationships and reflect on the implication of this for understanding power relations. They conclude that there is a need to move beyond narrow economic definitions of value to include a more broadly defined range of values located within networks of relationships. The authors argue that power can shape whose values are recognized and acted upon, with such actions potentially hampering other less powerful actors in communicating what they value. This aligns with the extensive body of literature on power dynamics in environmental decision-making, which argue for participatory approaches that allow for actors who are often marginalized in decision-making to have their voice heard (Barnes et al. 2007; Culley and Hughey 2008).

Along with the power imbalances between government bodies, experts and industry stakeholders and communities, Belton et al. present a more nuanced understanding of power that includes cultural influences that can often marginalize women or those from low status fishing groups in Bangladesh. According to Islam and Chuenpagdee, cultural stigma also explains the marginalization experienced by Bede nomadic fishers in Bangladesh and helps to account for why they would prefer their children to leave the profession of fishing, even though it is currently providing the basis for a good livelihood. Their consideration of the broader, and changing, value context of Bangladesh, prompted by the social wellbeing perspective, shows how the latter can constructively enhance the sustainable livelihoods approach. Johnson et al. also address the multidimensionality of values in their analysis of SSF in Gujarat by linking the social wellbeing approach to the held-assigned value distinction. The relationality of the social wellbeing approach, according to them, provides a basis for understanding the fertile dynamism between the two kinds of values. Their approach gives us a means to see values not as stable things, but as negotiated and co-constructed through history, culture, personal differences, and the dynamics of life in particular places.

A thread which runs through many of these contributions is that value attributions are unlikely to be constant or immutable, but are likely to vary between individuals and groups, as well as over time. These examples suggest that, unlike monist theories of value that underpin neoclassical economics (De Groot et al. 2010), there are multiple values, valuers, and ways of valuing. Thus, in the context of SSF and

wellbeing, it is important to recognize the plurality of values and the, often, conflicting perspectives on what is valuable or what should be valued. Indeed, the concept of value pluralism is espoused in the literature on ecosystem service valuation and recognizes that value cannot be reduced to a single measure and that multiple values and valuation (economic and non-economic) approaches are needed to fully account for the multiplicity of values (Gómez-Baggethun et al. 2014).

Clearly fisheries governance and management needs to address the undervaluation of SSF, and the relative poverty of how value in SSF is understood. Increasingly studies argue that SSF can contribute in a range of different ways to society (Barnes-Mauthe et al. 2013; Urquhart and Acott 2014), however important aspects of SSF are often rendered invisible in a policy-making context, or indeed to people outside of the fishing industry more generally. The challenge is how to make invisible SSF values visible at different scales and in diverse public, governance, and political settings. The Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (FAO 2015) recognize the social and cultural values of SSF and offers an opportunity for a more comprehensive consideration of values when developing policy or management actions for fisheries or marine protected areas. However, as Jentoft (2014) points out there is a long way to go to implement the guidelines as “the willingness and capacity to implement policies with regard to small-scale fisheries are often lacking” (p. 12). This is discussed further in the next section that considers the importance of applying the lessons learnt from the contributions in this book.

## 14.5 Applied Lessons and Paths Forward

This volume, produced through the Too Big to Ignore: Global Partnership for Research on Small-scale Fisheries initiative ([www.tbti.net](http://www.tbti.net)), has brought together a global interdisciplinary research community to conceptualize and demonstrate the unique contributions made by SSF to society and to make a larger argument for societal support for SSF. It has also raised important theoretical qualifications about making value-based claims for the importance of small-scale fisheries and provided evidence to illustrate these points. The contributions in this volume have provided qualitative and quantifiable assessments and used a variety of approaches to uncover a rich and expansive range of wellbeing values provided to fishers, communities and other sectors of society by small-scale fisheries. As the diverse contributions show, social wellbeing provides a lens through which to explore and make visible a diverse set of values associated with SSF. However, the idea of social wellbeing is not a single method or a theory. Rather it is a container that points to relational associations among people and between people, ideas, and nature. In this volume the container has been filled with a range of disciplinary perspectives exploring the importance of SSF, including human geography, social psychology, socio-cultural anthropology, economics, political ecology etc. Rather than thinking of one approach that exemplifies how to capture the values of SSF, social wellbeing allows us to adopt diverse perspectives in different contexts to better understand and reveal

the plural values of SSF and their contributions to human wellbeing. In addition to the authors' reflections on their own work in the context of social wellbeing, this volume has also afforded the opportunity to reflect back on the social wellbeing concept itself and to think about the co-constructed nature of relations between fisheries practices and broader society.

The challenge is to transform these conceptualisations of tangible and intangible wellbeing and values into useful practical action and policy for fishing communities, fisheries managers and government policy makers. The contributions in this book have used different dimensions of subjective, relational and objective wellbeing related to numerous spatial scales (for instance individual, household, community, region) to situate their investigations. This has enabled identification and assessment of a range of diverse quantitative and qualitative values using different methodologies across a range of disciplinary and geographic contexts. The contributions to this book have highlighted the importance of cultivating diverse disciplinary perspectives that are relevant to particular contexts and socio-ecological situations. However, a critical area for further work is how to translate the outputs of the various approaches that have been described into practical action that actually improves the situation for SSF around the world. After all, the majority of fishers understand the importance of their activities and what it means to them and their families and communities. The missing link is how the social wellbeing approach can actually help deliver a better future, in other words how can these approaches be made accessible to policy makers? Fisheries management tends to under value and simplify the social wellbeing contributions of SSF and is sometimes driven by poor quality social research.

We need to strengthen the awareness among managers and policy makers of pressures (such as economic intensification, environmental and ecological degradation, climate change, political decision making) that can erode material values and transform relational values and subjective perceptions and ultimately undermine the social wellbeing of SSF communities. As pointed out in Weerantunge et al. (2014) the application of a social wellbeing approach to fisheries and environmental management could have a positive impact on the sustainability of socio-ecological systems and their ability to be resilient to pressures and drivers. In Chap. 5, Stacey et al. provide an example of how the social wellbeing approach might be developed and applied in the context of SSF. They build upon the model presented in Weerantunge et al. (2014) to show the complex array of interrelated and overlapping values central to livelihoods, meaning, and the social wellbeing of the Sama-Bajau. Analyses such as theirs can bring into relief factors of critical importance for sustaining small-scale fisheries but also which are indicative of the rich social, cultural, and knowledge diversity that SSF contribute to the global heritage of humankind.

If change is going to happen in the real world, academic perspectives such as those articulated in this book need to move into the realm of policy and politics and address issues of governance. In a pivotal final chapter, Jentoft and Chuenpagdee make the case that achieving wellbeing is the outcome of a complex chain of interrelated factors spanning social and environmental contexts. They make the

connection between wellbeing as a multidimensional concept and the holistic and integrative perspective of interactive governance. Their chapter adds a conceptual breadth to the ideas presented in the volume by implying that SSF governance is co-constructed in the relationship between healthy fish stocks and marine ecosystems and the wellbeing of millions of people around the world.

The governance of healthy SSF communities is about understanding personal and relational values and the links between natural and social environments. Jentoft and Chuenpagdee argue that governance mechanisms that only seek to alleviate poverty are unlikely to enhance wellbeing if they fail to recognize the multiple values that SSF communities hold, including fishing as a preferred way of life. Community is an important concept when talking about SSF, however, the idea of community is itself relational. Communities are not homogenous entities, and the distribution of power amongst actors can privilege or under-represent different members and groups. Belton et al. remind us that everyday discourses of community can legitimize different forms of exploitation. Similarly, Johnson et al. discuss the positionality of values across spatial scales and among diverse groups of actors and explain how values can be partial and trigger conflict. Value for some can be disvalue for others. Community is thus somewhat of a paradox in that it can be the idea around which a value narrative of SSF is built but can also hide difference and inequality.

In terms of the path forward from this book, further work is needed in several areas:

1. Conceptually, we have suggested there is rich promise for wellbeing theory in the link between relationality and human-nature co-constructionist approaches. More effort is needed to tease out the implications of that synergy, particularly in relation to thinking about values, practice, and power.
2. From a methodological perspective the appropriate role of quantitative and qualitative methods for conveying the values of small-scale fisheries still needs much development. Arguments around richness and depth versus representativeness are familiar in the literature. However, many of the papers in this volume have clearly demonstrated that SSFs are a rich source of tangible and intangible cultural values. Our work in this volume lays the foundations for a social wellbeing inspired approach to understanding values relationally that responds to Section 11 of the SSF Guidelines. That section states that efforts need to be made to develop methods for gathering "...data allowing for an improved understanding and visibility of the importance of small-scale fisheries and its different components, including socioeconomic aspects" (FAO 2015: 16).
3. Making SSF values visible in a way that is appropriate to policy makers yet also succeeds in conveying the breadth of values of SSF remains a central challenge. The clear and visually engaging strategies for presenting the diverse values of SSF developed by Song and Stacey et al. are promising possibilities in this regard and deserve further attention.
4. Related to the previous point, most of the approaches described in this book make reference to social science approaches. Wider inter-disciplinary engagement

is needed. There is an increasing amount of interest in understanding how the arts and humanities can contribute to understanding and translating policy relevant narratives. Equally, more engagement with natural science researchers is needed to integrate attention to the material values of SSF. There is considerable potential for thinking across disciplines to fill out and refine the approach we suggest for analysing the diversity of values in SSF.

5. Fifth, although the geographical range explored in this book encompasses a diversity of contexts the majority of papers have a focus on Asia. Given the rich global diversity of SSF, future work might profitably apply our social wellbeing of values approach across a broader range of geographical sites to understand the particular circumstances that shape how social-ecological practices in fisheries relationally generate values (and disvalues).

This concluding chapter has drawn out four key themes that emerged as a result of the 12 contributions in this volume. In each chapter, authors have reflected on the diverse ways that the social wellbeing approach can be used to investigate, identify and make visible a broad range of values associated with SSFs. In addition to the social wellbeing approach influencing the writers' interpretations of their work, authors also explored the social wellbeing framework itself and made suggestions about how a more explicit socio-ecological and historical relationality could help heighten its contextual sensitivity. However, of central importance is our ability to make the various perspectives described in this volume relevant in practice. For this to happen consideration needs to be given to politics, power, and governance and how the values of SSF can be made visible in decision-making contexts. The complex values of SSF need to be articulated in ways that are meaningful to diverse audiences. Crucially, an approach is needed which simplifies findings to make them accessible to academics in other disciplines and to non-academic audiences while still conveying the rich diversity of values of SSF. This is a central challenge in delivering the sustainable development of SSF.

## References

- Barnes M, Newman J, Sullivan H (2007) Power, participation and political renewal: case studies in public Participation. The Polity Press, Bristol, p 229
- Barnes-Mauthe M, Oleson KLL, Zafindrasilivonona B (2013) The total economic value of small-scale fisheries with a characterization of post-landing trends: an application in Madagascar with global relevance. *Fish Res* 147:175–185
- Brox O (1971) Newfoundland fishermen in the age of industry: A sociology of economic dualism. Institute for Social and Economic Studies, St. John's
- Chan KMA, Satterfield T, Goldstein J (2012) Rethinking ecosystem services to better address and navigate cultural values. *Ecol Econ* 74(C):8–18
- Culley MR, Hughey J (2008) Power and public Participation in a hazardous waste dispute: a community case study. *Am J Community Psychol* 41(1):99–114
- Daniel TC et al (2012) Contributions of cultural services to the ecosystem services agenda. *Proc Natl Acad Sci* 109(23):8812–8819



- Darwall S (2011) *Consequentialism*. Wiley-Blackwell, Oxford, p 310
- De Groot RS, Alkemade R, Braat L, Hein L, Willemen L (2010) Challenges in integrating the concept of ecosystem services and values in landscape planning, management and decision making. *Ecol Complex* 7(3):260–272
- Des Jardins JR (2001) *Environmental ethics: an introduction to environmental philosophy*. Wadsworth Group, Thomson Learning Inc, Belmont
- FAO (2015) *Voluntary guidelines for securing sustainable small-scale fisheries in the context of food security and poverty eradication*, Rome, Food and Agriculture Organization of the United Nations
- Fischer A, Eastwood A (2015) Coproduction of ecosystem services as human–nature interactions—an analytical framework. *Land Use Policy* 52:1–10
- Fish RD (2011) Environmental decision making and an ecosystems approach: some challenges from the perspective of social science. *Prog Phys Geogr* 35(5):671–680
- Gibson-Graham JK (1996) *The end of capitalism (as we knew it): a feminist critique of political economy*. Blackwell, Malden
- Gibson-Graham JK (2011) A feminist project of belonging for the Anthropocene. *Gender Place Cult* 18(1):1–21. doi:10.1080/0966369X.2011.535295
- Gómez-Baggethun E, Martín-López B, Barton D, Braat L, Saarikoski H, Kelemen E, García-Llorente M, Van Den Bergh J, Arias P, Berry P, Potschin LM, Keene H, Dunford R, Schröter-Schlaack C, Harrison P (2014) State-of-the-art report on integrated valuation of ecosystem services. European commission FP7, EU FP7 OpenNESS Project Deliverable 4.1
- James SP (2015) Ecosystem services and the value of places. *Ethical Theory Moral Pract* 19(1):101–113
- Jentoft S (2014) Walking the talk: implementing the international voluntary guidelines for securing sustainable small-scale fisheries. *Maritime Stud* 13(16):1–15
- Mcgoodwin JR (1990) *Crisis in the World's fisheries: people, problems, and policies*. Stanford University Press, Stanford
- Norgaard RB (2010) Ecosystem services: from eye-opening metaphor to complexity blinder. *Ecol Econ* 69(6):1219–1227
- Pinkerton E (2015) The role of moral economy in two British Columbia fisheries: confronting neoliberal policies. *Mar Policy* 61:410–419
- Platteau JP (1989) Penetration of capitalism and persistence of small-scale organisational forms in Third World fisheries. *Dev Chang* 20:621–651
- Polanyi K (2001[1944]) *The great transformation: the political and economic origins of our time*. Beacon Press, Boston
- Potschin MB, Haines-Young RH (2011) Ecosystem services: exploring a geographical perspective. *Prog Phys Geogr* 35(5):575–594
- Pröpfer M, Haupts F (2014) The culturality of ecosystem services. Emphasizing process and transformation. *Ecol Econ* 108(C):28–35
- Satz D et al (2013) The challenges of incorporating cultural ecosystem services into environmental assessment. *Ambio* 42(6):675–684
- Scholte SSK, Van Teeffelen AJA, Verburg PH (2015) Integrating socio-cultural perspectives into ecosystem service valuation: a review of concepts and methods. *Ecol Econ* 114(C):67–78
- St. Martin K (2007) The difference that class makes: Neoliberalization and non-capitalism in the fishing industry of New England. *Antipode* 39(3):527–549. doi:10.1111/j.1467-8330.2007.00538.x
- Thompson EP (1991) The moral economy of the English crowd in the eighteenth century. In: Thompson EP (ed) *Customs in common*. The New Press, New York, pp 185–258
- Thomson PR, Wailey T, Lummis T (1983) *Living the fishing*. Routledge & Kegan Paul, London/Boston
- Urquhart J, Acott T (2014) A sense of place in cultural ecosystem services: the case of Cornish fishing communities. *Soc Nat Resour* 27(1):3–19
- Weeratunge N, Béné C, Siriwardane R, Charles A, Johnson D, Allison EH, Nayak PK, Badjeck M-C (2014) Small-scale fisheries through the wellbeing lens. *Fish Fish* 15:255–279

**Tim G. Acott** is a Reader in Human Geography at the University of Greenwich. He is Director of the Greenwich Maritime Centre and is currently the Chair of the Coastal and Marine Research Group at the Royal Geographical Society. Over the last 8 years he has worked extensively on understanding the social and cultural importance of fisheries through sense of place and cultural ecosystem services. He co-edited a book in 2014 called 'Social Issues in Sustainable Fisheries Management' and has published numerous articles. His most recent research is leading a project exploring the socio-natural values of wetlands from a co-constructionist perspective.

**Derek S. Johnson** is an Associate Professor of Socio-cultural Anthropology at the University of Manitoba and a Research Associate at the Centre for Maritime Research at the University of Amsterdam. Derek's research integrates political ecology and social wellbeing approaches in the analysis of small-scale fisheries governance and cultural economies of food. Since the mid-1990s, his primary geographical area of interest has been South Asia, and particularly the Indian state of Gujarat. Derek led the Diverse Values research cluster and a working group on the social and cultural dimensions of small-scale fisheries within the Canadian Social Sciences and Humanities Research Council project *Too Big to Ignore: Global Partnership for Small-scale Fisheries Research*. This volume is an output of those groups.

**Natasha Stacey** is an applied anthropologist with interests in maritime anthropology in Indonesia and sea nomadic populations in Southeast Asia. She is currently Associate Professor at the Research Institute for the Environment and Livelihoods, Charles Darwin University leading a multidisciplinary group of scientists and postgraduate scholars working on natural resource management and livelihood research projects in Australia and Asia. Her recent research projects have included improving coastal livelihoods, food security and fisheries management in the cross-border regions of the Arafura-Timor Seas; Building Indigenous science capacity for aquaculture enterprise development; and Rehabilitating blue carbon mangrove habitats in Indonesia.

**Julie Urquhart** is an environmental social scientist in the Centre for Environmental Policy, Imperial College London. Her research interests include exploring human-environment relationships in order to understand how people relate to and value nature and how this can inform natural resource management and environmental policy. She was a co-investigator on two projects between 2011–2014 that investigated the social and cultural values associated with small-scale fisheries through place-based approaches in order to inform fisheries policy and coastal management in England, France, Belgium and the Netherlands.

# Index

## A

Access, 37, 79, 81–85, 87, 88, 90, 100, 105, 108, 117, 118, 132, 188, 198, 205, 206, 210, 216, 229, 230, 233, 238, 240, 283, 286, 301, 302, 312, 322

Access to cash, 85

Access to cash income, 90

Access to natural resources, 87, 207, 214

Actions, 4, 6, 8, 16, 37, 82, 83, 160, 185, 190, 200, 215, 258, 301, 304, 309, 321, 328, 329

Action space, 305

Actor network theory, 36

Aesthetic, 323

Aesthetic values, 26, 30, 93

Affective, 27

Agency, 6, 93, 188, 213, 296, 300, 322, 324

Alcohol, 286

Allocation, 189

Alternative livelihoods, 110, 258

Anthropology, 6

Anti-Muslim, 253, 261, 263

Anxiety, 288

Artworks, 30, 37, 58

Aspirations, 7, 90

Assets, 8, 37, 79, 83, 84, 86, 92, 141, 200–202, 206, 207, 211, 214, 230, 263, 300

Assigned values, 4, 15, 17–18, 128, 247, 270, 272, 274, 276, 279–280, 282, 285–287, 289, 290, 326, 328

Attachments to fishing, 29

Atlantic Forest Coast of Brazil, 76, 77

Attachment, 5

Attachments to place, 6, 30, 49, 128, 130, 131, 220, 241

Attachment to fishing, 288

Australia, 105, 106, 115

Autonomy, 93, 100–102, 110–112, 118, 157, 188, 240, 310, 327

Awareness building, 301

Axiomatic approach, 128

## B

Bag net, 279

Bag net fishery, 283

Bag net fishing, 278

Bajau, 99, 106, 323

Bajau Laut, 99

Bajau Tempatan, 106

Bangladesh, 323, 328

Bay of Bengal, 203, 222, 231

Beaches, 48, 61, 67, 113, 182

Beach fishery, 48

Bede, 323

Bede migrant fishers, 323

Bede nomadic fishers, 328

Belgium, 28

Beliefs, 27, 50, 128, 131, 169, 207, 246, 247, 249–251, 253, 261, 263, 264, 285, 321

Belief systems, 13, 103, 109, 214

Benefits, 25

Binary logistic regression, 169

Blue revolution, 150

Boat dwelling Sama-Bajau, 99

Boundaries, 38, 64, 104, 113, 132, 250

Brazilian, 322

Brazilian small-scale fishers, 327

Buddhist temples, 249

Built environment, 55

Bureaucracy, 151, 170, 171

Bureaucrats, 175–193

## C

- Capabilities, 2, 82, 220
- Capacity, 281, 284
- Capital(s), 3, 8, 16, 82, 83, 85, 86, 90, 116, 131, 135, 137, 148–151, 154, 157, 158, 162, 169, 170, 201, 209, 210, 214, 220, 227, 230, 238
- Capitalism, 5, 68, 323, 324
- Capitalist economies, 322
- Capitalization, 148, 151
- Cash income, 85, 86, 93, 325
- Caste, 15, 158, 162, 164–166, 168–170, 176, 178, 180, 181, 183, 184, 231, 236, 251, 271, 277, 278, 282–284, 286, 287, 290, 323
- Caste identity, 288
- Categorizations, 149
- Categorizing SSF, 149
- Central Marine Fisheries Research Institute, 151, 156
- Change, 273
- Channel Integrated Approach for Marine Resource Management (CHARM III ), 28
- Children, 31, 77, 80, 90, 93, 105, 109, 111, 161, 186, 204, 207, 208, 210, 211, 213, 228–230, 234, 237, 238, 255, 281, 285, 305, 307, 328
- Class, 287
- Climate change, 92, 115, 290, 299, 307, 330
- Cluster analysis, 156
- Coastal communities, 24, 28, 35, 39, 46, 81, 110, 200, 255, 263, 298, 327
- Co-constructed, 25, 27, 32, 35, 325, 328, 330  
fluid relationality, 326
- Co-construction, 14, 324, 325
- Co-constructionism, 36, 324–326
- Co-constructionist, 25, 34, 36, 39, 324, 327, 331  
approach, 28, 273
- Co-constructive, 290
- Cognatic kinship system, 112
- Cognitive, 27
- Co-governance, 310, 313
- Collective identity, 323
- Collective place identity, 46
- Command-and-control governance, 170
- Commodification, 13, 283, 285
- Commodified, 287
- Commodity, 285
- Commodity chains, 104, 115, 117
- Common Fisheries Policy, 24
- Community, 3, 6, 16, 27, 32, 37, 48, 50, 51, 53, 54, 56, 60–63, 76, 77, 79–81, 83, 84, 86, 87, 89, 91, 93, 111, 116, 118, 126, 129–131, 133, 134, 136, 137, 140, 143, 149, 151, 157, 170, 171, 176, 181, 183, 185, 192, 199, 200, 202, 205, 207–210, 214, 215, 220, 229, 230, 236–239, 241, 246–248, 250, 254, 255, 257, 258, 260, 264, 284, 290, 297, 298, 300, 301, 303, 305, 306, 309, 313, 324, 325, 329–331  
identity, 28, 31, 38, 134, 137, 155, 327  
perception, 137, 142  
tensions, 265  
wellbeing, 307
- Community-based organizations, 176
- Competing interests, 64–66, 274
- Competition, 283, 285, 288
- Complexity, 278
- Conative, 27
- Conflicting, 297, 329
- Conflicts, 60, 88, 116, 117, 126, 131, 140, 152, 182, 185, 190, 191, 209, 210, 247, 256–257, 261, 271, 278, 281, 284, 286, 301, 302, 309, 311, 323, 331
- Conformity, 130, 131, 140, 311
- Connection with nature, 31
- Constitutive, 325
- Constructivist, 273
- Contestations, 50, 59, 65
- Continuity, 49, 53, 63, 66, 93, 94, 108
- Contributions, 4, 16
- Cooperative membership, 158, 160, 162, 163, 165, 167
- Coping mechanisms, 301, 303
- Coromandel Coast, 175–193
- Corporate, 307
- Cosmology, 109
- Cost-based methods, 26
- Crab processing factory, 68
- Crab processing plant, 134
- Crabs, 46–48, 53, 54, 56, 57, 59, 61, 62, 64, 66, 67, 131–133, 135, 137, 139, 140, 143, 227
- Credit, 139, 211, 227, 230, 233, 235, 239, 284, 287, 304
- Cromer, 45–71, 323
- Cromer crab, 52
- Cultural, 3, 5–7, 9, 12, 16–18, 29, 31, 32, 35, 37, 39, 40, 59, 82, 83, 111, 113, 127, 129, 169, 198, 200, 203–204, 206, 209, 212, 213, 215, 241, 246, 247, 253, 256, 262, 271, 273, 276, 278, 282, 289, 305, 309, 323, 328, 330
- Cultural and social data, 320
- Cultural beliefs, 49

- Cultural belief systems, 116
- Cultural dimensions, 28
- Cultural discourse, 134, 140, 142
- Cultural diversity, 26, 215
- Cultural ecosystem services, 23–40, 324, 327
- Cultural embeddedness, 287
- Cultural factor, 27
- Cultural heritage, 26, 30, 207, 212, 298
- Cultural identity, 30, 101, 126, 208, 216
- Cultural knowledge, 108, 118
- Cultural meanings, 27, 29, 35
- Cultural services, 35
- Cultural stigma, 328
- Cultural sustainability, 130, 131
- Cultural systems, 5, 248
- Cultural values, 25, 26, 31, 115, 197–216, 327
- Cultures, 12, 24, 29–31, 35–37, 40, 50, 57, 82, 83, 101, 105, 119, 199, 204, 212, 215, 228, 249–251, 285, 297, 298, 305, 328
  
- D**
- Decision-making, 25, 40, 101, 179, 210, 213, 215, 246, 248, 260, 297, 306, 310, 312, 321, 328, 330, 332
- Decision-making process, 24
- De-essentialization, 323
- Definition, 155
- Definition of value, 4
- Definition of wellbeing, 8
- Deliberation, 297, 301, 302, 308, 327
- Delicacy, 134, 139, 207, 323
- Demographic changes, 46, 63
- Dependency, 48, 103, 161, 164, 165, 168, 169, 272, 328
- Deprivation, 220, 228, 299
- Development, 150, 154, 158, 166, 169, 281–282, 285, 320, 322
- Developmentalist, 154, 164
- Development discourse, 150
- Diasporic networks, 112
- Dietary changes, 90
- Difference principle, 306, 310
- Disasters, 208, 212, 213, 230, 239, 304
- Discourses, 90, 93, 130, 149, 170, 171, 220, 235, 239, 240, 248, 261, 263, 331
- Disembedding, 5
- Dispute management, 185, 187
- Dispute-resolution, 184
- Disvalues, 271, 274, 276, 284, 287
- Diverse, 64, 324
  - values, 18, 141, 148, 265, 331
- Diversity, 8, 15, 290, 321
  
- Divine powers, 255
- Domestic commodity production, 5, 110
- Dried fish, 110, 150, 220, 222, 225–227, 232, 237, 240, 283
- Dried fish value chains, 219–241, 328
- Dynamic place-based approach, 325
  
- E**
- Ecological, 322
- Ecological degradation, 271
- Ecological knowledge, 9, 130, 149, 206, 207, 214, 287
- Ecological stress, 281
- Economic, 322, 323
- Economic and non-economic approaches, 329
- Economic and political pressures, 321
- Economic behavior, 321
- Economic contributions, 9, 136, 279
- Economic injustice, 263
- Economic opportunities, 322
- Economic relations, 321
- Economic rivalry, 247, 262
- Economic valuation, 26
- Economic values, 4, 15, 26, 134, 141, 207, 248, 256, 261, 281, 282, 327
- Ecosystem, 288
- Ecosystem approach, 36, 40
- Ecosystem-based approach, 25
- Ecosystem services, 8, 24–26, 28, 32, 35, 40, 198, 291, 324–326
- Ecosystem service valuation, 26, 329
- Education, 8, 77, 79, 116, 159, 162, 163, 165, 166, 168, 169, 180, 186, 198, 199, 205, 209, 211, 213, 229, 230, 283, 299, 304
- Educational, 281
- Educational values, 26
- Embedded, 5, 6, 148, 157, 169, 328
- Embeddedness, 3, 5, 6, 199, 272–274, 309
- Emic, 297
- Employment, 10, 12, 17, 48, 81, 85, 116, 126, 136, 143, 150, 154, 158, 160, 162, 163, 165, 166, 168, 170, 186, 190, 198, 206, 207, 211, 214, 220, 228, 240, 272, 279, 280, 283, 289, 308
- England, 28
- English Channel, 25, 27, 28
- Enjoyment of life, 209
- Environmental changes, 76, 82, 83, 90, 101, 109, 205, 212
- Environmental depletion, 285
- Environmental functions, 25
- Environmental settings, 28

Equality, 323  
 Eudaimonia, 6  
 Europe, 24  
 European, 25  
 Exchange, 271  
 Exclusion, 49, 190  
 Exploitation, 285, 287  
 Export-oriented fishing, 151  
 External influences, 64, 100

**F**

Faith-based values, 327  
 Festivals, 204, 207, 209, 254, 255, 259, 285, 287  
 First-order governing, 310  
 Fisher community, 230, 231  
 Fisheries, 5  
 Fisheries development policy, 148  
 Fisheries governance, 9, 37, 100, 264, 271, 287, 289, 291, 296, 300, 305, 310, 329  
 Fisheries management, 24, 33, 39, 82, 100, 119, 214, 277, 309, 330  
 Fisheries policy, 15, 24, 126, 200, 271, 289, 308  
 Fishermen's relationships, 46  
 Fishery assistance, 142  
 Fishing, 56, 64  
 Fishing community, 61, 330  
 Fishing economy, 77, 81, 84, 86  
 Fishing expeditions, 100  
 Fishing identity, 56, 58, 60–63  
 Fishing places, 28, 29, 50, 274  
 Fishing success, 101  
 Fishing success (*rezeki*), 109  
 Fishing village cooperatives, 136, 139, 140  
 Fish markets, 81, 84, 119, 254  
 Fish trade, 282  
 Fluid, 32, 68, 100, 107, 129, 325, 327  
 Fluidity, 109, 110, 113, 118, 324  
 Fluid spaces, 36, 101  
 Fluid values, 15, 104–113, 118, 323, 327  
 Food security, 34, 149, 159, 206, 207, 211, 213, 214, 272, 279, 282, 283, 298, 311, 320  
 Forest harvesting, 86  
 Formal education, 86, 92, 158, 159, 163, 168, 169  
 Forum shopping, 321  
 France, 28  
 Freedom, 7, 31, 82, 101, 129–131, 157, 207, 211, 215, 283, 300, 303  
 Free word association, 57, 58  
 Fundamental values, 119, 313

**G**

Gender, 12, 15, 34, 105, 159, 160, 169, 192, 213, 220, 224, 228, 239, 240, 271, 276, 283, 287, 305, 323  
 General public, 52, 56, 129–131, 134, 137, 142  
 Geographic, 36, 93, 149–151, 164–167, 330  
 Geographical, 326  
 Geographic place, 157  
 Geographies, 158, 162, 166, 169, 170  
 Geography of Inshore Fishing and Sustainability (GIFS), 28  
 Geopolitical circumstances, 142  
 Gillnets, 279, 286  
 Gir Somnath district, 274  
 Gleaning, 100, 116  
 Globalisation, 68, 92, 118, 325  
 Globalized markets, 64  
 Global market developments influence, 104  
 Gods, 249, 255, 256, 258, 259  
 Governability, 295–313  
 Governability assessment, 300, 308  
 Governance, 3, 15, 17, 24, 100, 118, 126, 132, 160, 169, 176, 178, 200, 215, 272, 273, 275, 281, 282, 284, 287, 288, 290, 291, 296, 297, 299, 300, 302, 303, 307, 309, 310, 312, 313, 320, 322, 329–331  
     arrangements, 24  
     challenges, 18, 276  
     concerns, 290  
     failure, 283  
     framework, 14  
     implications, 127, 141–142, 271  
     initiatives, 306  
     institutions, 16, 322  
     interventions, 17, 141, 290, 296, 301, 322  
     mechanisms, 296, 312, 331  
     principles, 313  
     problems, 285  
     process, 12, 290, 296, 297, 308, 311, 312  
     strategies, 170  
     structure, 140, 192  
     system, 309, 310, 312  
     theory, 274, 296, 301  
 Governing, 198, 296, 307–312  
 Governing orders, 297, 300–302, 308  
 Government officials, 117, 176, 177, 192, 303  
 Government services, 188  
 Gujarat, 323, 328

**H**

Health, 286  
 Health care, 281

- Held value orientations, 4  
 Held values, 4, 15, 18, 128, 247, 270, 272, 276–278, 289–291, 326  
 Heritage, 29, 31, 50, 56, 58, 118, 130, 131, 198, 285, 330  
 Heritage centre, 63  
 Heritage values, 137, 203  
 Heuristic device, 25, 35, 37, 129–131, 143  
 Hilsa, 323  
 Houseboats, 103, 107  
 Household consumption, 78, 84  
 Households, 79, 82–84, 86, 89, 90, 105, 108, 110, 112, 118, 156–161, 166, 175, 180, 186, 198, 202, 204, 209, 211, 213, 221, 222, 227, 229, 238, 248, 251, 261, 282, 283, 286–288, 298, 308, 322, 330  
 Human-environment relations, 8, 27, 76, 89  
 Humanistic geography, 27  
 Human-nature relations, 37  
 Human rights, 199, 308, 312  
 Human wellbeing, 7, 273  
 Hybrid geography, 36
- I**  
 Identity/identities, 5, 6, 14, 26, 29, 30, 32, 38, 45, 49, 51, 52, 56–59, 63, 64, 68, 89, 100–104, 110–112, 117–119, 130, 163, 165, 167, 181, 184, 189, 207, 209, 211, 219–241, 246, 251, 254, 263, 285, 309, 325, 327, 328  
 Ideological discourses, 247  
 Ideology, 321  
 Illegal aliens, 117  
 Illegal fishing, 246, 256, 262, 263, 265, 302  
 Illegible, 148, 170  
 Illness, 256, 303  
 Imagining change, 67–68  
 Improvements, 67, 77, 83–87, 90, 93, 117, 281, 283, 286, 290  
 Income, 280  
 Incompatible values, 309  
 India, 322, 325, 327  
 Indicators, 3, 10, 12, 13, 224  
 Indigenous fishing groups, 118  
 Indigenous knowledge, 12, 108, 119, 216  
 Individuals, 4, 5, 8, 27, 28, 30, 37, 40, 46, 49, 51, 54, 56, 68, 87, 89, 90, 103, 128, 129, 180, 182, 200, 214, 224, 238, 247, 264, 273, 296, 307, 310, 322, 328, 330  
 Indonesia, 98, 99, 105–108, 113, 115–117, 119  
 Indo-Norwegian Project, 151  
 Inequality, 323  
 Informal agreements, 141  
 Infrastructure, 281  
 Inshore coastal fishing, 100  
 Inshore fisheries, 48, 51, 116  
 Inshore fishing, 25, 35, 46  
 Inspiration, 7, 12, 15, 26, 30  
 Institutional, 14, 32, 171, 176, 183, 191, 200, 211, 281, 289, 297, 301, 303, 311, 323  
 Institutional process, 14  
 Institutions, 284  
 Intrinsic values, 15  
 Instrumental, 282  
 Instrumental valuation, 324  
 Instrumental values, 272, 327  
 Intangible, 4, 128, 142, 272, 327  
 Intangible cultural values, 331  
 Intangible socio-cultural values, 327  
 Intangible values, 271, 327  
 Intangible wellbeing, 330  
 Interacting with others, 63  
 Interactions, 9, 16, 28, 34, 35, 49, 51, 52, 56, 59–62, 68, 81, 87, 90, 92, 100, 103, 104, 131, 176, 187, 193, 240, 249, 251, 256, 260, 263, 300, 324  
 Interactive governance, 308, 310, 311, 327, 331  
 International environmental NGOs (ENGOs), 116  
 Interviews, 50, 133, 136, 139, 152, 154–156, 170, 177, 202, 210, 225  
 Intrinsic values, 6, 272, 282  
 Islands of TawiTawi, 107
- J**  
 Job satisfaction, 13, 133, 136, 143, 202  
 Junagadh district, 274  
 Justice, 3, 129, 193, 229, 248, 261–263, 299, 306, 310, 312, 313, 322, 327
- K**  
 Karaikal, 189, 191, 192  
   districts, 176  
   region, 177, 179  
 Kerala, 278  
 Kinship, 6, 100, 101, 103, 112–113, 116, 118, 220, 238, 241, 287, 327  
 Kinship relations, 112  
 Knowledge systems, 26  
 Korean, 323  
*Kovil*, 245, 251, 255, 256, 258, 260, 264  
   festival, 257  
   Hindu temple, 245

**L**

Labour, 328  
 Labour relations, 220, 226, 238–240  
 Leadership, 155, 207, 210, 214, 233, 281  
 Learning, 86, 207, 304, 308  
 Legal pluralism, 15, 170, 176, 274  
 Legitimacy, 16, 176, 181, 182, 309  
 Legitimate, 140, 236, 300, 309, 312  
 Linear regression, 164  
 Livelihood, 5, 13, 16, 37, 39, 64, 76–81, 84,  
     85, 89, 90, 92, 93, 100, 101, 106, 109,  
     110, 115, 118, 130, 134, 135, 137, 175,  
     187, 198, 200, 202, 212, 214–215, 222,  
     224, 230, 240, 246, 248, 250, 254, 255,  
     257, 259, 261, 264, 265, 272, 278–280,  
     282, 288, 289, 296, 298, 302, 304, 306,  
     307, 309, 321, 327, 328, 330  
     activities, 100  
     decisions, 309, 321  
     diversification, 116  
     diversification strategies, 88, 92  
     strategies, 82, 83, 108, 111, 116, 202, 212  
     sustainable, 312  
 Lobster, 48, 60  
 Lobster festival, 47  
 Local communities, 34, 263, 296, 302, 307,  
     309, 312, 320  
 Local economy, 59, 61, 64, 80, 90, 93, 213,  
     282, 283, 325  
 Local seafood, 56  
 Long-distance voyaging, 112, 115  
 Loss of identity, 325  
 Loss of local identity, 64

**M**

Maharashtra, 278  
 Malaysia, 99, 113, 114, 117  
 Malaysian identity, 110  
 Malaysian state, 111  
 Management, 12, 24, 25, 36, 49, 86, 115, 116,  
     118, 132, 149, 151, 171, 181, 186, 198,  
     201, 213, 216, 236, 298, 301, 304–306,  
     308, 311, 321, 324, 326, 329  
     action, 14  
 Marginalization, 288, 328  
 Marginalize/marginalized, 63, 103, 118, 320,  
     323, 328  
 Marine Fisheries Census 2010, 156  
 Marine fishing, 28, 32  
 Marine protected areas (MPAs), 109, 329  
 Market failures, 26  
 Market links, 108, 117  
 Material, 9, 10, 24, 28, 34, 37, 224, 271, 327

Material assigned values, 279  
 Material dimensions, 10, 32, 37, 68, 83–85,  
     90, 200, 214, 299, 309, 325  
 Material environment, 29, 31  
 Material signs, 56  
 Material values, 136, 211, 282–283, 286, 326,  
     330, 332  
 Material wellbeing, 222, 238, 286  
 MEA. *See* Millennium Ecosystem Assessment  
     (MEA)  
 Meaning making, 256, 264  
 Meanings, 35  
 Mechanized, 279, 282  
*Melhorar*, 322  
 Memories, 27, 30, 35, 63, 192  
 Meta-order, 296, 301, 302, 305, 308, 310–312  
     governance, 306  
 Methods, 16, 50, 77–79, 127, 128, 133, 199,  
     201–202, 220, 250–254, 320  
*Metis*, 171  
 Middlemen, 103, 108, 215  
 Migratory, 99, 115, 202, 204, 285  
 Millennium Ecosystem Assessment (MEA),  
     7, 25–27, 36  
 Mobility, 68, 85, 101, 103–107, 113, 115, 118,  
     206, 212, 230  
 Modernization, 76, 148  
 Moken, 98, 111  
 Moral and ethical values, 327  
 Moral economies, 15, 238, 245–265, 274, 321,  
     323, 327  
 Mosque, 253, 260, 263, 264  
 MoU Box, 106  
 Multidimensional, 2, 201, 272, 331  
     needs, 7  
     values, 328  
 Multidimensionality, 328  
 Multi-naturalism, 273  
 Multiple values, 320, 326, 328, 331  
 Multiplicity of values, 329  
 Multi-religious, 249, 255, 259  
 Muslims, 231, 246, 251, 253, 256, 257,  
     260–264, 327

**N**

Nagapattinam, 176, 177, 179, 185, 190, 191  
 Nagapattinam-Karaikal region, 184, 187, 192  
 Natural environment, 31  
 Natural resource management, 25, 249  
 Natural resources, 25, 26, 324  
 Nature, 35–37, 40  
     and culture, 26, 326  
     and society, 324, 326, 328



- Needs, 90  
 Neo-classical economics, 4, 328  
 Neo-liberal, 3, 111  
   governmentality, 3  
   market-based regulation, 170  
 Netherlands, 28  
 Newcomers, 61, 62, 66, 141  
 Noise, 61  
 Nomadic fishers, 113, 197–216  
 Non-capitalist, 323  
 Non-human, 5, 25, 35, 38, 39, 324  
 Non-instrumental value, 327  
 Non-material benefits, 28  
 Non-material cultural value, 31  
 Non-material wellbeing, 26  
 Non-mechanized, 279, 280, 282  
 Non-mechanized fishing, 278  
 Non-representational theory, 36  
 Norfolk, 323  
 Normative, 149, 239, 272, 289, 291, 300, 312, 322  
 Norms, 131, 207, 214, 247, 251, 254, 258, 273, 301, 305, 308, 311, 323  
 Northern Australian waters, 105  
 North Norfolk, 51, 55, 61, 62, 325  
 North Norfolk coast, 14, 47–48  
 Nostalgia, 323  
 Novelty values, 137  
 Nutrition, 320  
 Nutrition security, 10, 222, 280
- O**
- Objective, 9, 34, 130, 328, 330  
 Objective contributions, 10, 140, 141  
 Objective values, 130, 133, 135–136  
 Objective (tangible) values, 101  
 Observations, 14, 16, 51, 133, 141, 262, 274  
 Offshore wind energy, 48  
 Open-access, 281, 289, 304  
 Open-ended interviews, 128, 133  
 Orang-Laut, 98  
 Overfishing, 283  
 Owner-operated, 301
- P**
- Pair trawling, 190–192  
 Participant observation, 78, 79, 254, 275  
 Participation, 78, 79, 86, 110, 115, 118, 119, 162, 181, 210, 215, 216, 296, 297, 300, 310–313  
 Participatory approaches, 328  
 Participatory democracy, 297  
 Patronage, 190  
 Patron-client bonds, 100  
 Patron-client relationships, 103  
 Patrons, 103, 104, 107, 108, 110, 112, 207, 214, 238, 259, 264, 284, 287  
 Pattinavar, 178, 180  
 Perception, 134  
 Perceptions of change, 51  
 Philippines, 99, 107, 109–111, 113, 114, 117  
 Physical character, 34  
 Physical environment, 27, 28, 30, 34, 35, 56  
 Place, 323, 324  
 Place attachment, 27, 30, 34, 46, 49, 53  
 Place-based approach, 23–40, 327  
 Place-based identities, 48, 238  
 Place-based meanings, 14  
 Place character, 28–31  
 Place dependence, 27, 34  
 Place identity, 27, 34, 45–71  
 Placelessness, 68  
 Place making, 34  
 Place meanings, 30, 46, 50, 55, 61, 62, 64, 68, 325  
 Place protective behaviour, 61  
 Place satisfaction, 34  
 Places of origin, 106, 107, 111  
 Plurality of values, 329  
 Plural values, 330  
 Policy interventions, 32, 82, 215  
 Political, 322  
 Political discourses, 264  
 Political economy, 15, 131, 238, 241  
 Politico-military factors, 127  
 Politico-military objectives, 140  
 Ponta Negra, 17, 76, 77, 80, 83, 84, 87–90, 92, 93, 322, 327  
 Ponta Negrans, 88  
 Poor, 280  
 Positional, 288  
 Positionality, 6, 15, 271, 276, 290  
 Positive freedom, 310  
 Postcards, 56  
 Post-war, 246, 253  
 Pound, 16  
 Pound net fishing, 322  
 Pound nets, 80, 81, 83–85, 87–89, 91  
 Poverty, 10, 15, 82, 93, 148–150, 152, 156–159, 162, 163, 165, 166, 168–170, 198, 200, 201, 204, 214, 282, 295–313, 320, 325, 331  
   alleviation, 7, 214, 215, 298, 306, 307, 311  
 Power(s), 15, 16, 82, 113, 116, 130, 131, 139, 140, 176, 179, 214, 224, 229, 249, 255, 274, 299, 303, 304, 308, 313, 321, 328, 331, 332  
 Power relations, 213, 214, 241, 328

- Pride, 5, 59, 61, 101, 108, 119, 134, 137, 208, 211, 230, 240, 262, 265, 288, 290, 309
- Process, 326, 327
- Processing plant, 137
- Production, 5, 12, 26, 29, 31, 38, 131, 132, 149–151, 154, 156, 170, 203, 220, 222, 225, 227, 233, 237, 247, 272, 277, 282, 298, 305
- Protected areas, 107, 109, 302
- Provisioning, 7, 26
- Provisioning services, 25, 32
- Public welfare, 286
- Q**
- Qualitative, 2, 10, 12–13, 17, 329, 330  
 approach, 325  
 methods, 331
- Quality of life, 30, 32, 76, 77, 80, 82–84, 86, 89, 90, 93, 129, 200, 284, 289
- Quantifiable, 2
- Quantitative, 3, 10, 16, 325, 330, 331
- Quantitative indicators, 10–12
- Questionnaires, 28, 50–52, 55, 79
- R**
- Rationalising, 256, 264
- Rationality, 5, 301
- Rawls, John, 306, 310
- Reciprocity, 88, 112, 207, 210, 214, 245–265, 322
- Reconcile, 247, 250, 257, 259, 261, 264
- Reflexive, 2
- Regulating, 7
- Regulating services, 25
- Relational, 3, 4, 7–10, 16, 18, 24, 34, 35, 37–40, 49, 51, 68, 76–79, 83, 87, 94, 101, 103, 112–113, 118, 127, 129–131, 134, 139–142, 157, 176, 183, 199, 201, 205, 207, 210, 213–215, 220, 224, 229, 235, 240, 249, 270–273, 276, 281, 284, 287, 289, 290, 296, 299, 300, 305–307, 309, 321, 325, 326, 328–331
- Relational assigned values, 283, 286
- Relational contributions, 141
- Relational dimension, 32
- Relational dimensions of wellbeing, 49
- Relationality, 6, 15, 16, 38, 271–273, 276, 320, 324–328, 331, 332
- Relational ties, 101
- Relational trade-offs, 17
- Relational values, 103, 283–284
- Relational wellbeing, 87
- Relationships between fishermen, 60
- Relative poverty, 329
- Relativistic perspective, 128
- Religions, 246–250, 253–255, 257, 263, 264, 271, 287, 290, 321, 323, 327
- Religiosity, 249, 256, 264
- Religious, 286  
 identity, 258, 259  
 motivations, 321  
 values, 26, 248–250, 254, 264
- Representations of fishing, 58
- Residents, 17, 46, 50–53, 55–58, 60–62, 64, 68, 85, 133, 134, 137, 142, 189, 207, 226, 231, 236, 283–285, 288, 322, 323
- Resilience, 45–71, 327
- Resilient, 5, 93, 213, 231, 279
- Resistance, 63–68, 176, 192, 253, 322, 325
- Resource access, 200
- Resource degradation, 303
- Resources, 8, 35, 37, 39, 60, 63, 64, 76, 77, 79, 80, 82–84, 86, 88, 90, 92, 93, 101, 104, 107–110, 115, 117, 119, 130, 135, 150, 151, 154, 176, 198, 199, 206, 212, 215, 220, 263, 271, 275, 281, 283, 286, 290, 298, 302, 304–306, 308, 312, 320–322, 325, 327
- Resource use, 100, 101
- Resource use patterns and kinship ties, 100
- Retired fishermen, 56, 63
- Retirement, 48
- Retirement homes, 67
- Revealed/stated preference, 26
- Rights-based, 151, 306
- Ringseines, 185, 187, 191
- Ringseining, 190–192
- Risks, 3, 63, 141, 198, 200, 229, 231, 235, 238, 239, 245–265, 285, 287, 304, 306
- Rituals, 13, 181, 209, 249, 251, 254–257, 259, 261, 263, 264, 285, 327
- Romantic, 13
- Romanticization, 6
- Rote Island, 105
- S**
- Sabah, 106
- Sacred, 232, 249, 257, 259
- Safety at sea, 184, 188, 256
- Sama, 99
- Sama-Bajau, 14, 97–119, 323, 327, 330  
 identity, 106  
 livelihood, 107  
 migration, 115  
 worldviews, 109

- Sampela, 108, 112  
 Sanitation, 183, 186, 210–211, 229, 281  
 Satisfaction, 6, 9, 37, 80, 134, 198, 200,  
 206–208, 211, 214, 231, 272, 273, 284,  
 285, 287, 288, 299, 305, 307  
 Scale, 15, 274  
 Scaling down of the fishery, 141  
 Scheduled caste/tribe, 161  
 Sea nomads, 98, 105  
 Seasonality, 55  
 Seaweed, 107, 109, 110, 116, 160  
 Secondary data, 51  
 Secondary employment, 280  
 Second homes, 48, 55, 61, 62  
 Second order governing, 305  
 Sedentarisation, 111, 115  
 Self-actualization, 131, 136  
 Self-determination, 310  
 Self-employed, 126, 304, 307  
 Self-exploitation, 238  
 Semi-nomadic, 99  
 Semi-structured interviews, 28, 51, 78, 79, 275  
 Semporna, 106  
 Sense of belonging, 49–50, 63, 130, 131, 207,  
 209, 238, 305, 309  
 Sense of community, 61  
 Sense of freedom, 209  
 Sense of place, 14, 24–28, 32, 34–37, 39, 40,  
 61, 68, 287, 325  
 Services, 325  
 Share system, 282  
 Sheringham, 45–71, 323  
 Shifting agriculture, 76, 77, 84, 86  
 Sinhala Buddhists, 245, 247, 251, 254,  
 260, 261  
 Small and large-scale, 279  
 Small-scale fisheries (SSF), 3–7, 9, 12–18, 24,  
 39, 48, 76, 77, 79, 80, 83, 84, 92, 93,  
 97–119, 125–143, 147–171, 198, 200,  
 211, 213–215, 220, 240, 295–313,  
 319–332  
 governance, 306  
 research, 143, 220  
 Small-scale fishers, 9, 14, 76, 100, 148, 151,  
 154, 198, 211, 214, 254, 260, 297, 298,  
 301, 302, 304, 305, 312, 322, 323  
 Small-scale fishing, 4, 16, 31, 80–82, 100,  
 118, 149, 155, 198, 199, 212, 238–240,  
 296, 297, 301, 303–310, 312, 313, 320,  
 321, 323  
 Social and cultural values, 25, 325, 329  
 Social and economic behavior, 321  
 Social and economic differentiation, 81  
 Social and economic networks, 118  
 Social capital, 155  
 Social change, 67  
 Social cohesion, 28, 31, 32, 38, 130, 131, 207,  
 247, 248, 260, 265  
 Social control, 182  
 Social differentiation, 92, 271  
 Social identity, 63, 192  
 Social inequality, 46  
 Social losses, 113  
 Socially constructed, 27  
 Socially marginalized, 161  
 Socially ostracized, 166  
 Social norms, 139, 248, 322, 327  
 Social objectives, 24  
 Social order, 90, 130, 131, 140  
 Social recognition, 130, 131, 140, 207  
 Social relations, 26, 37, 321  
 Social solidarity, 327  
 Social welfare, 326  
 Social wellbeing, 2, 7–13, 15, 17, 18, 25, 34,  
 40, 45–71, 75–94, 97–119, 148, 157,  
 170, 199–201, 205, 207, 209, 220, 240,  
 274–276, 319–332  
 Social wellbeing approach (SWA), 7, 8,  
 13, 15–16, 24, 33, 34, 37, 46, 48,  
 68, 93, 101, 127–129, 199, 214–215,  
 224, 272, 274, 325, 326, 328,  
 330, 332  
 Social wellbeing framework, 101, 325, 332  
 Social wellbeing perspective, 325  
 Social wellbeing theory, 148, 157, 169  
 Societal contributions, 3, 6, 10, 16, 126, 143  
 Societal support, 320, 329  
 Societal worth, 140  
 Society, 37  
 Socio-cultural, 39  
 Socio-cultural values, 148, 320  
 Socio-ecological, 39, 40, 330, 332  
 Socio-ecological perspective, 324  
 Socio-natural assemblages, 36  
 Socio-political differences, 247, 264  
 Something, 208  
 Southeast Asia, 14, 97–119, 323, 327  
 Southeast Asian, 104, 113  
 Southern North Sea, 25, 28  
 South Indian, 151, 179  
 South Korea, 15, 125–143  
 South Korean surveillance, 140  
 Spaces, 9, 12, 49, 50, 80, 103–105, 116, 126,  
 140, 170, 181, 212, 213, 246, 257, 261,  
 264, 289, 298, 302, 323  
 Spatial mobility, 100, 101, 327

- Spatial scales, 330
- Sri Lanka, 245–265, 276, 304, 308, 321, 327
- SSF. *See* Small-scale fisheries (SSF)
- SSF Guidelines. *See* Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines)
- Standard of living, 285
- State discourses, 16
- State governance, 239
- State interventions, 150, 289
- Stateless, 103, 110, 113, 114, 117, 227, 323
- State power, 188
- States, 3, 15, 17, 37, 77, 99, 103, 104, 113, 116–119, 140, 150, 152, 156–158, 162, 166, 170, 184, 190, 192, 198, 200, 204, 222, 230, 232, 238, 270, 271, 273, 277, 279, 281, 282, 284, 287, 289, 296, 303, 307, 322
- Stationary fishing gear, 80
- Statistical practice, 164
- Statistics, 155, 156, 169
- Stressed, 288
- Subjective, 5–7, 9, 10, 24, 34, 37, 48, 68, 76, 77, 83, 84, 89, 101, 127, 129, 130, 134, 136–139, 141, 142, 148, 157, 176, 183, 193, 199, 201, 205, 209, 212, 213, 215, 220, 224, 235, 240, 270–273, 276, 281, 285, 287, 288, 290, 299, 300, 306–309, 326, 328, 330
- Subjective contributions, 131, 137
- Subjective dimensions, 8, 9, 32, 34, 46, 51, 78, 79, 199–200, 212, 272, 325
- Subjective religious identity, 264
- Subjective values, 101, 285, 287–289, 327
- Subjective wellbeing, 12, 129, 177
- Subsidiarity, 306
- Subsidies, 126, 133, 140, 160, 170, 298
- Subsistence, 150
- Sulu Archipelago, 107, 110, 114
- Supermarkets, 68
- Supernatural, 255
- Supporting services, 25
- Surfers, 60, 64
- Surveillance, 301
- Sustainability, 25, 35, 115, 127, 154, 199–201, 215, 247, 284, 287, 289, 298, 306, 330
- Sustainable development, 332
- Sustainable livelihoods, 8, 24, 198, 214
- Sustainable livelihoods approach (SLA), 15, 82, 199–201, 328
- Swimming crab fishery, 15, 125–143, 328
- Symbolic, 4, 49, 57, 118
- Symbols, 45–71
- T**
- Tamil Hindus, 256, 258, 261
- Tamil Nadu, 322
- Tamils, 246, 251, 254, 263
- Tangible, 330, 331
- Tangible values, 327
- Technological, 283, 322
- Technological transition, 323
- Technology, 323
- Temple festivals, 184, 251, 258
- Tensions, 46, 62, 65, 247, 253, 256, 260, 262–264, 273, 290
- Thematic analysis, 52
- Three-dimensional approach, 326
- Timor Sea, 106
- Too Big to Ignore: Global Partnership for Research on Small-scale fisheries (TBTI), 1, 13, 14, 17, 329
- Top-down, 169
- Top-down narrative, 148
- Tourism, 30, 31, 34, 39, 46, 47, 54, 55, 59, 76, 77, 79, 86, 92, 116, 308, 322  
economy, 85, 86, 90, 92
- Trade-offs, 26, 75–94, 273, 287
- Trading networks, 101, 117, 327
- Traditional, 54, 59, 60, 62, 65, 93, 106, 108, 119, 151, 155, 158, 161, 165, 167, 177, 178, 180, 182, 193, 204, 208, 248, 250, 261, 279, 284, 298, 299, 303, 307
- Traditional fisher identity, 159
- Traditional governance, 149
- Traditional valuation, 198
- Traditions, 8, 24, 30, 36, 47, 52, 57, 64, 88, 100, 115, 130, 131, 137, 187, 198, 207, 248, 251, 305, 320, 321, 325
- Transformations, 28, 32, 38, 119
- Transitions, 321–324, 326
- Trawler, 278, 279
- Trincomalee, 245–265, 327
- Two-step cluster analysis, 167
- U**
- Unfree labourers, 236, 239
- Unstructured interviews, 51
- Urgency principle, 307
- Ur panchayats, 175–193, 325
- Ur panchayats' traditional, 186
- Utility, 4, 28, 33, 36, 170, 326
- V**
- Valuation process, 250

Valuations, 51, 128, 148  
 Value chains, 17, 137, 203, 210, 224, 240–241  
 Value-contribution matrix, 125–143, 328  
 Value orientations, 272, 277, 328  
 Value pluralism, 329  
 Value politics, 273  
 Values, 3–9, 127–131, 272–274, 282, 320, 325–329  
 Value sets of spatial mobility, 100  
 Value systems, 247, 250, 256, 264  
 Vegetarian, 288  
 Vegetarianism, 271, 277, 279, 282, 289, 291  
 Vicious circle, 300, 307  
 Violence, 112, 185, 229, 246, 251, 253, 260, 264  
 Visitors, 30, 46, 47, 51–53, 55–58, 60, 61, 63, 67, 68  
 Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries (SSF Guidelines), 149, 170, 171, 176, 198, 296, 308, 312, 313, 320, 326, 329, 331  
 Vulnerability, 5, 200, 201, 213, 229, 299, 302, 304, 307, 323

## W

Wage labour, 76, 83–85, 90, 170  
 Wages, 48, 126, 135, 207, 227, 228, 233–235, 237–239  
 Wakatobi, 105

War, 51, 132, 232, 251, 256, 261, 263–265  
     violence, 256  
 Wattle and daub, 86  
 Way of life, 2, 8, 13, 28, 89, 100, 101, 104, 112, 118, 157, 198, 205–207, 212, 296, 305, 309, 327, 331  
 Wellbeing, 2, 7–9, 14, 16, 23–40, 46, 49–52, 82–85, 88–90, 100, 128, 129, 136, 141, 143, 175–193, 197–216, 219–241, 271, 281, 282, 284, 290, 295–313, 320, 321, 323, 325–331  
 Wellbeing in Developing Countries (WeD), 24  
 Wellbeing toolkit, 78, 79  
 Wicked problem, 274  
 Wind energy, 64  
 Women, 9, 10, 12, 17, 51, 52, 103, 105, 108, 109, 116, 160–162, 164, 168, 181, 184, 186, 187, 202, 208, 210, 213, 224, 228, 229, 231, 232, 237–240, 247, 251, 254, 256, 278, 283, 285, 305, 313, 323, 328  
 Worldviews, 100, 247

## Y

Yellow Sea, 131  
 Yeonpyeong Island, 131, 323

## Z

Zakat, 260, 261