

Chapter 1

Setting the Stage

Svein Jentoft and Arne Eide

People and the sea the world over are similar in many respects; this is what makes social science possible. People and the sea are also different in many respects; this is what makes social science necessary. There are still many areas of ignorance both with regard to the similarities and the dissimilarities. Therefore, we should not be too self-satisfied about our current stocks of knowledge. I believe that fashioning more nuanced maps to identify and address these areas of ignorance is the best approach to begin this new phase of research.

Kurien 2002, p. 24

Abstract This book is about small-scale fisheries and the many poor and vulnerable people who draw their livelihoods from this sector. The focus is on what fishing means to them, their adaptations to shifting environments, and how fisheries contribute to food security and well-being. It is also about institutions and governance of small-scale fisheries, and how they influence the coping capabilities of the people in addressing poverty and vulnerability. Drawing on case studies from 15 countries around the world – from Latin America, Africa, Asia, and Europe – the book presents a remarkable mosaic of small-scale fishers’ stories, situations, and coping strategies. Small-scale fisheries are variable, and therefore hard to define. What is small in one country is not necessarily small in another. Countries often have their own way of categorizing small-scale fisheries. Their diversity, fluctuations, and change complicate statistical comparison. This implies that policies and development initiatives aiming to alleviate poverty and create sustainable growth need to be tailored to the particular problems, circumstances, and opportunities that small-scale fisheries are facing, wherever they exist.

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1.1 Introduction

Fisheries have an important role to play in meeting the first UN Millennium Development Goal to eradicate extreme poverty and hunger (UN 2010). Today, fish proteins represent more than 15% of the world's total animal protein intake. For many countries, fisheries are sources of economic growth, but fisheries also support a significant number of poor people. An estimate by the WorldFish Centre and FAO (2005, p. 1) suggests that there might be: "some 23 million fishery-dependent people living on less than US\$1 per day." Thus, as the fishing industry helps to feed the world, it also has an inherent poverty problem to deal with.

This book is about small-scale fisheries and the many poor and vulnerable people who draw their livelihoods from this sector. The focus is on what fishing means to them, their adaptations to shifting environments, and how fisheries contribute to food security and well-being. It is also about institutions and governance of small-scale fisheries, and how they influence the coping capabilities of the people in addressing poverty and vulnerability. Drawing on case studies from 15 countries around the world – from Latin America, Africa, Asia, and Europe – the book presents a remarkable mosaic of small-scale fishers' stories, situations, and coping strategies. Small-scale fisheries are variable, and therefore hard to define. What is small in one country is not necessarily small in another.

Fisheries vary according to technological criteria such as boat size and gear type. They also vary with regard to capital use, economic performance, and market linkages. The nature of activities such as subsistence and/or commercial, number of crew, and travel time differs from fishery to fishery and from place to place. Small-scale fisheries obviously also play key roles within the society. In addition to providing primary support, they often represent an important safety valve when livelihoods in non-fishing (e.g., agricultural) communities are under threat. Small-scale fisheries are also extremely diverse from a cultural point of view. Normative orientations and social values vary to the extent that small-scale fishers may have different ideas about their profession, what they aspire to, and how they relate to each other as a community. The images of how they see themselves and how they fit into the larger picture of nature and society may also be very different.

For these reasons, countries often have their own way of categorizing small-scale fisheries. Their diversity, fluctuations, and change complicate statistical comparison. This implies that policies and development initiatives aiming to alleviate poverty and create sustainable growth need to be tailored to the particular problems, circumstances, and opportunities that small-scale fisheries are facing, wherever they exist. Context is always important. Still, small-scale fisheries display many similarities. Therefore, it makes sense to talk about small-scale fisheries as a separate sector, distinctly different from large-scale industrial fisheries, both often competing for the same resources and political attention.

Within modern management thinking, it seems easier to deal with industrialized, large-scale fisheries than with traditional, small-scale fisheries (Berkes et al. 2001). The sheer number of small-scale fishers and their enormous variety and combinations of fishing technologies and practices globally and locally represent a governability

challenge (Kooiman et al. 2005); one that requires considerable sensitivity and dexterity, which often exceeds what the central government is capable of. Therefore, decentralization and involvement of small-scale fishers in co-management arrangements is now perceived as a way out, as noted in the FAO's Code of Conduct for Responsible Fisheries.¹ However, implementing the Code represents a governability problem in itself, as governments may have different resources, views, and ambitions for this sector. It is therefore not surprising that an international comparison regarding implementation shows very mixed results (Pitcher et al. 2008).

Despite their potential contribution to poverty alleviation, small-scale fisheries all over the world are subject to major challenges and threats, be they resource degradation, conflicts over resources and coastal space, globalization of markets, and climate change. Those who are already poor are likely to feel these pressures more than others, as they are usually more vulnerable and less resilient. If, for instance, those who are seeking opportunities in the fishery as a consequence of poverty are excluded from exploiting the resource, they will be relegated to an even worse situation. This is the moral dilemma that fisheries resource management aiming to reduce fishing pressure must confront. How can policies and management conserve the fish and protect the fisher at the same time? Or is social injustice the price we must pay if we want to sustain the resource base, as Garrett Hardin (1969) believed?

Small-scale fisheries have long been a focus of social researchers. Commencing with Raymond Firth's (1946) seminal work on Malay fishers, there is now considerable academic literature on this sector. The focus has been on small-scale fisheries as a livelihood, a source of income, and as a culture (Acheson 1981). Resource management and governance is a more recent interest, with McGoodwin's (1990) book as an influential contribution. Not only are small-scale fisheries important as a contributor to food security and economic development for the poor, they are also intriguing because of their technological, social and cultural diversity, complexity, and dynamics. As Béné (2003) observes, fishing communities represent an "inexhaustible mine" for social research, including that of small-scale fisheries and poverty, particularly with regard to issues such as collective action, power relationships, and decision-making.

The WorldFish Centre/FAO report (2005) concludes that there is a need for more in-depth case studies of how and why small-scale fisheries are becoming increasingly marginalized and impoverished. This is exactly what this book aims to do. As such, it illustrates that small-scale fisheries are variable and diverse. Indeed, globally, they form a *mosaic* of adaptations, characteristics, and problems. Small-scale fishers are also unequally poor and vulnerable; and, they are poor and vulnerable for many and often different reasons. People's perceptions of what poverty means are also not uniform.

Therefore, we need to *understand* the many dimensions of poverty and vulnerability – the political, economic, social, cultural, and ecological *contexts* that small-scale fisheries operate within – and we must learn how people within this sector are *coping*, adapting, and transforming their situation, either for the better or possibly for the worse. These are all basic knowledge requirements before we can start

¹<http://www.fao.org/fishery/ccrf/en>

imagining a future where small-scale fishing people are free from poverty and vulnerability; and before we can begin *changing* the current state of affairs in order to arrive at that future. This book is structured to follow these steps.

1.2 The PovFish Project

The approach of the PovFish project² captured in this volume is to combine an overall, global assessment of small-scale fisheries and economic development, with in-depth case studies of small-scale fisheries from 15 countries around the world: Guatemala, Nicaragua, and Mexico, in Latin America; Poland and Turkey in Europe; Ghana, Malawi, Mozambique, South Africa, and Tanzania in Africa; and Bangladesh, India, Sri Lanka, Thailand, and Vietnam in Asia.

Notably, the countries are primarily the *locus* and not the research focus (cf. Arensberg 1961). This means that the case studies in this volume do not attempt to provide a comprehensive overview of small-scale fisheries in those countries. Instead, they investigate specific issues pertaining to small-scale fisheries, poverty, vulnerability, and sustainable development in the social and cultural contexts of particular communities and regions. This is also why the book is not organized with a regional presentation, but rather follows a thematic order.

The aim of the PovFish project and this volume is to highlight the dimensions constituting the biological, economic, social, and cultural diversity of small-scale fisheries; their dynamics and stressors; and the complexity of poverty as it is experienced by small-scale fisher folk (which includes the dependants of those who actually fish) around the world. The project is concerned with how poverty and marginalization is evolving in this sector. It focuses on how small-scale commercial and subsistence fishing people individually and collectively cope with poverty and vulnerability. One issue is how people are attracted to fisheries as a way of making a living and, in some instances, as a way out of poverty. Another is about how poverty may be a consequence of overfishing and resource depletion.

In the PovFish project, we are interested in how poverty and use of natural resources are interconnected. How does overfishing, environmental degradation, or natural disasters affect people's livelihoods? How are small-scale fishers victims of large-scale fishing activities? How do poor people cope and adapt, individually and collectively, to resource crises and poverty? How are culture and ethnicity expressed in the ways people relate to natural environments and cope with economic deprivation? What institutions are created to mitigate negative impacts on resources and livelihoods, and do they distribute wealth? Do institutions help to alleviate poverty

²Unravelling the Vicious Circle - Poverty Alleviation and Sustainable Livelihoods in Small-Scale Fisheries (PovFish), was a project executed through the Centre of Marine Resource Management – MaReMa – Norwegian College of Fishery Science, University of Tromsø, Norway. <http://povfish.maremacentre.com/>

and vulnerability, or not? What are the conditions and opportunities for converting the vicious circle of poverty into a virtuous one?

These are questions that the PovFish project was initiated to address, and which the authors of the chapters in this volume are discussing, each in their own way. They have also exchanged their knowledge at joint sessions throughout the project process, including the World Small-Scale Fisheries Congress in Bangkok, 17–22 October 2010. The PovFish team members, all of whom contributed to this volume, have a high command of the topics in the settings they are studying, either as local researchers and/or from long-term engagement and research experience.

1.3 This Volume

In this book, theoretical perspectives and methodological approaches differ from chapter to chapter, depending on the issue investigated and on the disciplinary background of the authors, which includes biology, economics, sociology, and social anthropology. Some of the chapters have multiple authors from different disciplines, while in some instances individual authors have an interdisciplinary background. The multi- and cross-disciplinary quality of this book is, in our view, a clear strength. Indeed, it could be argued that this is how poverty and vulnerability research should be approached (Hulme and Toye 2006).

Case study sites and methodological approaches were selected by the researchers. Some apply qualitative methods (fieldwork observations, interviews); others use quantitative methods (surveys); while some employ both. The case studies also allow comparative analyses, syntheses, and generalizations, which are put forward by Chuenpagdee and Jentoft, Chap. 3; Jentoft and Midré, Chap. 4; and the concluding Chap. 20 by Jentoft et al. Theoretically, their approach is more generative than deductive (Glaser and Strauss 1967), as they develop their theoretical arguments and propositions from their own empirical observations and findings, as much as from academic literature.

Part I: Positioning of this volume is done in three chapters that provide a global overview and background for the subsequent parts and chapters. First, Chap. 2 by Arne Eide, Maarten Bavinck, and Jesper Raakjær presents an overview of the status and trends in global fisheries, and discusses how these affect the population of small-scale fishers. Although the sector harbors millions of people who are poor, marginalized and vulnerable, the authors of this chapter argue that their situation must also be understood within the context of the role that fisheries resources have played in wealth creation. Rather than supporting the “trickledown” theory, visualized by the aphorism “a rising tide lifts all boats,” they are in favor of economic policies which prioritize distribution of wealth to small-scale fisheries.

In Chap. 3, Ratana Chuenpagdee and Svein Jentoft present a chain analysis framework for poverty research in fisheries, arguing that poverty needs to be understood and addressed by linking the aquatic environment with the harvest and the

post-harvest systems. The chain analysis is then illustrated with examples from the case studies. They also compare the 15 countries represented in this volume as they figure in various global indexes measuring well-being and poverty for the countries as a whole, and for their small-scale fisheries.

Chapter 4, by Svein Jentoft and Georges Midré, introduces the case studies and synthesizes the findings and arguments. The chapter also relates the contributions of the volume's authors to the literature on poverty and sustainability in general, and to the research literature on poverty and vulnerability in small-scale fisheries. What are poverty and vulnerability, how should they be conceptualized, and what governability challenges do they represent?

Part II: Understanding aims to give the reader a sense of the contextual diversity of small-scale fisheries, and a deeper understanding of the nature of poverty and vulnerability that people experience in different parts of the world. First, in Chap. 5, the reader is introduced to fisher folk in Bangladesh, where Mohammad Mahmudul Islam portrays the lives and livelihoods of fishing people on the Bay of Bengal. His main theme is about how they are recurrent victims of natural disaster and social pressure, and how their resilience is continually tested while they live on the margin of existence. He argues that alleviating poverty in this situation requires, first and foremost, dealing with people's vulnerability.

In Chap. 6, Paul Onyango reports from a small fishing community on Lake Victoria, Tanzania. In comparison with Islam's chapter, Onyango discusses people's reasons for joining the fisheries, and how they live their fishing life on a daily basis. Onyango argues that despite the poverty situation, small-scale fisheries are offering a rich way of life, and that policymakers and fisheries managers need to recognize the full meaning and satisfaction that small-scale fishers attach to their occupation. Otherwise, policies designed to regulate fishing activities may easily fail.

From Africa, the journey heads north to Poland and the Vistula Lagoon, where Boguslaw Marciniak, in Chap. 7, presents the new political reality. The fall of communism and later the integration of Poland into the European Union have brought not only environmental pressure but also social marginalization, to the extent that many people find it hard to sustain their traditional fishing livelihoods. As a consequence, young people leave their communities to seek opportunities elsewhere; while those remaining are unemployed and dependent on government assistance in order to get by. Fisher folk in the district that Marciniak studied are perhaps not poor in an absolute sense, when compared with counterparts in Bangladesh and Tanzania, but they are certainly poor and marginalized when compared to other social groups in their surroundings.

Returning to the African continent, Marloes Kraan, in Chap. 8, portrays the way small-scale fishers from Ghana have expanded their livelihood space by migrating over large distances. Her chapter describes the ethnic Anlo-Ewe beach seine fishers, and argues that for them small-scale fishing is definitely not an "occupation of last resort" but one to which they attach their cultural identity. This fishery has traditionally been a lucrative one, but is now threatened by overfishing and poverty. She believes that strong governance efforts are needed, that indigenous institutions have a

role to play, and rather than moving people into alternative livelihoods, a more realistic approach is to develop income-generating activities supplementary to fishing.

Maarten Bavinck's Chap. 9 describing the coastal fishery in Tamil Nadu, India, is another illustration of the global diversity of small-scale fisheries and poverty, which is characterized by an enormous increase in the fishing population and its subsequent governance implications. As in the case of Ghana, this area is rich with traditional institutions and legal systems that are installed to regulate fisheries, and to make sure that people get their fair share. The technological modernization of the fisheries instigated by the government as part of their Blue Revolution agenda has not only had impacts on the fishery, but also on the social structure and location of communities and fishing activities. Bavinck holds that it would be a distortion of fact to say that Indian fisheries are synonymous with poverty, but that the hardship that still exists in small-scale fisheries is closely connected with the wealth that has been created within the fishery sector. Attention must be directed toward social mobility and the exclusion of small-scale fishers that has followed in its wake.

Part III: Coping shifts the focus from depicting the nature of small-scale fishing and the deprivation and marginalization of its people, to the coping strategies that people employ to sustain their livelihoods and their resilience. This section first carries the reader to Mexico's Yucatan Peninsula and to two fishing communities where people have to deal with frequent hurricanes that damage the coast (Chap. 10). When interviewed by Silvia Salas and her colleagues (Maiken Bjørkan, Felipe Bobadilla, and Miguel A. Cabrera), the fishers acknowledged their vulnerability but do not necessarily see themselves as poor; at least, when they compare themselves with others, and as long as they have enough to eat. Still they are experiencing declining catch levels and therefore lower incomes. Notably, those who have joined a local fishing cooperative feel less vulnerable because it means preparedness and greater security, which suggests that in order to strengthen the adaptive capacity of fisher folk, it is important to focus on their organization.

In Chap. 11, Ståle Knudsen and Hakan Koçak present the story of the sea snail fishery on the Black Sea coast of Turkey – an examination of people's adaptability to a "boom and bust" fishery, which has given many local fishers an opportunity to move out of poverty. Still, they argue that marginalization and poverty of small-scale fishers, particularly among certain ethnic groups, is a fact that is more related to structural issues such as agricultural and educational policies, cultural stigma, and the politics of relations to state representatives and business patrons, than to the vicious circle of poverty and overfishing. They further assert that fisheries management in this region must go hand in hand with social policies, in order to reduce overall poverty and inequality in the fisheries.

Also in the case of Malawi and Lake Malombe, described by Mafaniso Hara in Chap. 12, fishers' incomes and livelihoods used to depend on one species, the *chambo*. However, this fishery has witnessed a decline in recent years, which has forced people to adapt by moving to other species, and has required government to take action. He tells about the impressive flexibility and inventiveness of fishers in their response to this decline. As the government of Malawi is poorly resourced to carry out management tasks, Hara argues that there is a need to bring fishers into a

co-management scheme, such that they are involved in research, data collection and enforcement. He also believes that fishers need to change some cultural attitudes toward the fishery being naturally open-access.

Chapter 13 by Miguel Gonzalez brings the reader across the Atlantic again, this time to Nicaragua and a community situated at the banks of the Pearl Lagoon basin on the Caribbean Coast. He locates small-scale livelihood fishing into the wider historic, economic, and political contexts of people of diverse ethnic origins. Fishing is not the only thing they do, and people, therefore, also need secure access to land and forest resources. Rights are, however, not guaranteed; overfishing and cattle ranching have led to environmental degradation and to social conflict. Still, these fishers have acted to secure their communal land and aquatic rights, organize themselves, and, by implementing informal community-based actions inspired by sustainable principles, manage the resources of the Lagoon.

Chapter 14 by Ratana Chuenpagdee and Kungwan Juntarashote carries the reader to Thailand, where small-scale fishing communities cannot easily be classified as poor. While small-scale fishing communities are faced with changes brought about by industrialized fishing, and coastal development in the form of a booming tourist industry, some fishing communities seem to possess a high capability to adapt by diversifying fishing activities, as well as engaging in other livelihood activities such as farming and tourism. Organizing local market cooperatives is another coping strategy. Conflicts with large-scale fishers and with fishers using illegal gears are, however, causing worries among local fishers, which calls for better governance.

Part IV: Changing is, first and foremost, about the factors that may improve or worsen poverty and vulnerability, and what governance and policy reforms are needed to turn the situation around to benefit small-scale fisheries. In Chap. 15, Kim Anh Nguyen and Ola Flaaten report from Thanh Phong, a small-scale fishing community in the Mekong Delta of Vietnam, where poverty alleviation policies have proven largely ineffective. Illegal fishing gears are being used, and have negative impacts on the marine system. Still, there is awareness among local fishers that resources are limited and that illegal fishing is exhausting them even further. However, their dependence on fisheries' resources and the absence of alternative incomes has forced them to continue illegal fishing practices. This is obviously a threat to the security of their livelihoods causing more poverty, which is higher than the national average to begin with.

Chapter 16, by Moenieba Isaacs, is situated in South African fisheries and discusses the extent to which the poor and dispossessed are benefitting from the governance process targeting small-scale fisheries in that country. Her findings, based on fieldwork in two coastal communities, suggest that the new policies have not succeeded in reducing the vulnerability and poverty of small-scale fishers. This is mainly because local elites have been able to direct the policy process to their advantage, as the poor are too unorganized to represent a powerful voice. In frustration of lost fishing rights, people have resorted to poaching, even within protected areas. Isaacs therefore calls for a paradigm shift that addresses the disparity between policies and practices, so that these are better attuned to the relationship between poverty reduction, environmental sustainability, and an allocation of fishing rights that ensures greater social justice.

The story that Oscar Amarasinghe and Maarten Bavinck tell in Chap. 17 is from the Hambantota District on the southern coast of Sri Lanka. Their main focus is on the role of cooperatives in connecting small-scale fishing communities to external resources. For fishers disadvantaged by weak credit arrangements, product and insurance markets, increasing costs of fishing equipment, and deficient educational and training services, cooperatives have made a very positive difference to their livelihood security. But not all fishing cooperatives in Sri Lanka are functioning well. Some have focused on promoting welfare at the expense of resource conservation. Thus for cooperatives to work properly, there is still room for improvement.

In Chap. 18, we are back on the African continent where Ana Menezes, Arne Eide, and Jesper Raakjær describe how Mozambique has undergone major regime shifts and policy changes over the last few decades. After independence, governments changed approaches toward the development of coastal fisheries. Infrastructure is improved and basic common goods are more available than they used to be; but still more than 70% of the coastal population lives below the poverty line. Co-management organizations have been established at the community level, but have benefitted the better-off fishers to a larger extent than the poor. Fisheries resources continue to serve as an important economic buffer for the poor, but the development of the small-scale fishery sector is hampered by poor infrastructure, and by emerging conflicts regarding the use of the coastal zone.

Chapter 19 by Hector Andrade and Georges Midré brings the reader back to Latin America to the small-scale fishers in the Amatique Bay on the Caribbean coast of Guatemala. Similar to Nicaragua, Guatemala figures among the countries in Latin America with the highest rates of poverty and inequality. Poverty is especially profound among indigenous and displaced people in rural areas. The open-access fishery does not discriminate against any particular group and, as in the case of Mozambique, works as a poverty-mitigating buffer for people who have no other source of livelihood. But, fish resources are under pressure from high fishing intensity, unsustainable fishing practices, and ineffective management. Still, fishers have negotiated an agreement on how to distribute access among themselves.

Part V: Imagining, the concluding Chap. 20 by Svein Jentoft, Arne Eide, Maarten Bavinck, Ratana Chuenpagdee, and Jesper Raakjær, is formed as a joint statement from members of the PovFish research team, summarizing the main findings and arguments, and the lessons that should be learned from this volume. This chapter addresses questions such as: What does the future hold for small-scale fisheries; and what policies, governance principles, and interventions can make a difference?

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