Chapter 1
Governability – New Directions in Fisheries Governance

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Abstract The chapter explains the origin and conception of the book, provides the rationale for its contents and describes its goals. It also includes a brief description of each chapter, how the chapters are linked and presented to illustrate the complex and wicked reality of the fisheries and aquaculture governance, and the utility of applying a systematic analytical lens like governability in addressing them. While the book focuses on the four main concerns identified in the earlier publication, *Fish for Life* (ecosystem health, social justice, livelihood, and food security), it argues that the framework can be applied to address concerns and governability challenges faced in other spheres.

Keywords Governability • Interactive governance • Fisheries • Aquaculture • Wicked problems

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Why are fisheries in crisis worldwide (McGoodwin 1990; Clark 2006)? What stops us from making progress and halting the over-exploitation of inland and marine fisheries, as well as unsustainable coastal and ocean development (Pauly et al. 2005; Roberts 2007)? Why do we have a hard time defining whether we need an ecosystem-based, wealth-based or livelihood approach to fisheries (see for instance, Berkes 2011)? Could it be that we still do not agree on what the real concerns are or fully understand the extent of the problems and challenges they raise for governance? We posit that part of what is missing is a holistic perspective to examine and address these problems, which may seem obvious and simple, but are complex and wicked in reality. This book offers a lens and a systematic approach for analyzing the nature of problems and challenges concerning the governance of fisheries and aquaculture. It explores where these problems are situated, and where potential solutions may be found. The key concept of the current focus is governability.

This book follows the line of investigation offered in the first product of the Fisheries Governance Network (www.fishgovnet.org), *Fish for Life – Interactive Governance for Fisheries* (Kooiman et al. 2005). In *Fish for Life*, which succeeded *Creative Governance* (Kooiman et al. 1999), we applied the theory of interactive governance and governability, as developed by Jan Kooiman in *Modern Governance* (1993) and *Governing as Governance* (2003), to fisheries and aquaculture. These theoretical groundings have since been further elaborated and explored in various settings around the world, and resulted in a series of publications, including special issues in the *Journal of Transdisciplinary Environmental Studies* (Kooiman et al. 2008) and *Fish and Fisheries* (Chuenpagdee and Sumaila 2010). The conceptual framework that this approach offers has generated a methodology to examine the characteristics of the aquatic environment, the natural as well as the human dimensions, including institutions governing the interactions between them. It has also stimulated the phrasing of research questions essential to addressing the complexity of the challenges that a better governance of fisheries and aquatic system would require.

Encouraged by the richness of the interactive governance perspective and the governability concept, as well as the opportunities that they bring to the fisheries discourse, in this volume we continue to pursue what this approach may reveal in settings where governors and stakeholders face real issues and challenges. Our deliberation is based on the premise that these challenges are varied and can be felt among governments and communities globally. The diagnosis of the problem must therefore come from their interactions and align with their ideas of what the solutions may be. Such emphasis on interactions distinguishes the interactive governance approach from others, which tend to presume that the tasks of governing lie either with the state or with communities.

Fish for Life contains a systematic analysis of the major, generalized and overall features of fishery systems that are seen as parts of a fishing chain: from the ecosystem to the consumer. It ends with a discussion of the governability of such systems, introduced as a diagnostic tool to understand the extent to which fisheries systems "are governable, i.e., have characteristics that facilitate or hamper governance" (Kooiman et al. 2005, 351). The assumption was, and still is, that governability of fisheries systems varies from one to the next, depending on the constellations of specific features.

The present volume continues where *Fish for Life* left off, highlighting governability as "the overall capacity for governance" of a societal system (see Chap. 2 by Kooiman and Bavinck this volume). However, rather than venturing straight away into the outline of an assessment framework, we begin by providing theoretical foundations for investigating major concerns in fisheries and aquaculture, followed by applying the governability concept in real world situations.

Part I contains this introductory chapter and Chap. 2, which revisits the concept and theory behind the interactive governance approach and governability. Part II investigates governability from the viewpoint of the four societal concerns that are highlighted in *Fish for Life* – ecosystem health, social justice, livelihood, and food security. These concerns are examined for the role they play in enhancing or inhibiting governability. The diversity, complexity, dynamics and scale associated with the systems-to-be-governed, the governing system and their interactions are portrayed in light of these concerns. Part III applies a governability perspective to specific themes and topics in fisheries and aquaculture. These include issues related to trawl fisheries in India, marine protected areas in Spain, salmon farming in Canada and Norway, gender relations in Galician shellfish gathering, and poverty in small-scale fisheries in Lake Victoria. In Part IV, we provide an overview of approaches and methods that can be utilized to examine various aspects of fisheries systems that impact on governability. Chapters in this part illustrate some of these methods as they are applied in the real world situations, including the Caribbean and Malawi. Part V is about looking forward. It examines the next steps necessary for a full and systematic assessment of governability that can be applied to fisheries, aquaculture and other contexts. By drawing on the lessons provided in earlier chapters, the final two chapters offer both an analytical framework and some general reflections.

Like *Fish for Life*, this volume "stands somewhere between an academic monograph and a multi-author, edited volume" (Kooiman et al. 2005, 8). The nucleus of the author group has been working together on interactive governance for over a decade. Added to the list of authors are younger scholars who have been attracted by the potentialities of the interactive governance approach for fisheries and aquaculture. While each author (set of authors) is of course responsible for the content of the chapter to which their name is attached, and the volume allows for a diversity of insights, the editors have made deliberate efforts to compose an integrated perspective.

Although originating in the social sciences, the book's ambit is inter-, if not transdisciplinary. The author group consists of representatives from a range of social science disciplines, as well as economists and marine biologists. All of us have made efforts to master the interactive governance perspective and to infuse it with our own insights from our experiences on the ground. In so doing, we have crossed many disciplinary boundaries and hopefully contributed to a more holistic approach.

While the present chapter explains why we believe this book is needed, the next chapter by Kooiman and Bavinck (Chap. 2) provides the theoretical foundation underlying the interactive governance and governability approach. It places an emphasis on the governing roles and interactions between state, market and civil society, by examining two inter-related systems, i.e., a system-to-be-governed, a governing system, and the governing interactions mediating between them. Together,

these two chapters of Part I serve as an introduction to the theory and concept underlying the applications that follow in the rest of the book.

Part II consists of five chapters, the first of which (Chap. 3 by Jentoft and Chuenpagdee) offers an overview of issues and concerns in fisheries and aquaculture, and the problems they pose to governance. They argue that improving governability requires, first and foremost, recognition of the wickedness of these problems and the need for an interactive governance approach to examine and address them. Chapters 4, 5, 6 and 7 take these concerns and explore them in greater detail. Jentoft (Chap. 4) focuses on social justice implications. While arguing that justice is an important value in itself, he also explores the functional aspects of justice in providing more legitimacy and compliance among affected stakeholders. Livelihood concerns are addressed in Chap. 5 by Johnson. His chapter links employment, livelihood strategies and wellbeing as major targets for fisheries governance, while recognizing their inherent wickedness. In so doing, references are made to key principles for improving livelihood governability, including inclusiveness, reflexivity, adaptive capacity, precautionarity and social justice. The next concern is related to food security. Here, Pullin (Chap. 6) makes a strong case for fish constituting an essential contribution to food security at all levels; the continuity of its provision, however, is threatened by inter-sectoral and environmental problems in fisheries and aquaculture. The chapter also reviews potential interventions for improving governability along the fish chain. The final chapter in this part (Chap. 7), by Pascual-Fernández and Chuenpagdee, elevates the concern to another level, where the overall health of the marine and ocean ecosystems is of key importance. The authors employ the governability concept to examine stressors affecting the ability of the governing system to address ecosystem challenges and disturbance.

In Part III, the book turns to a number of thematic applications of the governability concept in fisheries and aquaculture. It starts with a chapter that further explores the concept and ends with another that illustrates how major social transformation may enhance governability. In between are chapters that aim to understand, assess, appraise and improve governability as they deal with various issues and concerns in different parts of the world. The stage is set in Chap. 8, by Bavinck and Kooiman, as they explore the variations in governability that occur in fisheries systems. Making use of fieldwork material from South Asian fisheries, as well as perspectives from legal pluralism and institutional studies, the chapter offers a sense of the range of governability issues that may prevail in any given region. Chapter 9 by Onyango and Jentoft brings the analysis to Lake Victoria in Tanzania to demonstrate the importance of understanding governability when confronting difficult challenges like poverty. They illustrate how interactive governance and the governability framework can be applied in the study of poverty in small-scale fisheries at various scales. By addressing the wickedness of poverty, they emphasize the opportunities for local communities to elevate their livelihoods and wellbeing.

Scholtens and Bavinck follow in Chap. 10 with an assessment of a specific case of Palk Bay trawl fisheries in the South Asian region, illustrating that better adjustment and match between the fishery's system-to-be-governed and the governing system may go a long way in increasing governability. In Chap. 11, Liu, Chuenpagdee and Sumaila shift the focus to aquaculture. Given that it is one

of the world's fastest growing food producing industries, providing many benefits for society, governance challenges are expected to occur. They appraise what these are, drawing on lessons from salmon farming in Norway and Canada. Their analysis shows that governability of salmon aquaculture industry can be elevated through technological improvement, economic-based instruments, and innovative governance solutions.

In Chap. 12, De la Cruz Modino and Pascual-Fernández apply the concept to marine protected areas (MPAs) in Spain, arguing for the roles of local communities in enhancing the implementation and effectiveness of marine conservation and thus the sustainability of small-scale fisheries in the area. They also emphasize the importance of partnership and the step zero for MPA governance, which in turn helps improve governability. The final chapter in this part addresses another key issue in fisheries governance, gender inequality. Frangoudes, Marugán-Pintos and Pascual-Fernández exemplify this in Chap. 13 with the struggles that women who gather shellfish in Galicia face in their attempts to gain control over the exploitation of the resources. The case study demonstrates how local organization can be transformed to empower women and eliminate inequality, thereby enhancing the overall governability of a fishery system.

Recognizing that numerous methods and approaches may be employed to examine the various aspects of fisheries systems that affect governability, the chapters of Part IV present an eclectic suite of what these may be in empirical settings. In Chap. 14, Chuenpagdee and Mahon offer a broad overview of existing tools and techniques for investigating the characteristics of the system-to-be-governed, the capacity of the governing system and the quality of their interactions. Their examples include both natural science approaches (life histories, trophodynamics and food web studies) and social science methods (oral histories, stakeholder surveys and discourse analyses). Song and Chuenpagdee (Chap. 15) follow with an illustration of a specific tool called the 'damage schedule,' a paired-comparison method aimed at capturing the relative importance of issues concerning fisheries and aquaculture that might result in a prioritization of goals. The application to illegal fishing in Lake Malawi reveals people's underlying values and highlights what it takes to enhance governability in a way that benefits the ecosystems and the communities. The next approach, presented by Mahon and McConney (Chap. 16), is commonly used in social network analysis. The chapter demonstrates the utility of a network perspective in revealing system characteristics, such as where institutional links are deficient and how power is distributed within the fisheries governance system. This information is essential, they argue, for determining where interventions for improving governability are required. Networks and cooperation across scales are also important in fisheries governance, as illustrated by Almerigi, Fanning, Mahon and McConney (Chap. 17) with the example of the marine ecosystem-based management initiative for the Wider Caribbean Region. The authors employ a facilitation process to explore multi-level functionality, shared vision, guiding principles and priority actions of institutions and actors in the region in addressing key issues and identifying strategies for collaboration.

The final part (Part V) contains two chapters, one by Chuenpagdee and Jentoft and the other one by Kooiman. In the former (Chap. 18), the authors draw on the

contributions of this book to summarize key elements of the governability assessment framework. Their view focuses on the steps that follow after wicked problems in a fishery system are identified and the properties that affect governability have been examined. They propose two further enquiries: one into the capacity of the governing system to produce desirable outcomes, and the other into factors affecting and being affected by governing interactions. In a similar vein, Kooiman reflects on the fruitfulness of the interactive governance perspective and what it offers for the transdisciplinary study of fisheries and aquaculture systems in the final chapter (Chap. 19). Based on a scrutiny of basic concepts, he presents his views on achieving a full understanding of the complexities involved in securing healthy social and ecological systems through a governability lens.

Although this book emphasizes global challenges in fisheries and aquaculture governance, the interactive governance theory and the analytical governability perspective that we are offering have relevance for other societal sectors. Many of the concerns and problems discussed in this book are certainly not unique to fisheries and aquaculture, but may be found elsewhere. Other concerns, such as climate change and globalization, may also be examined in the same fashion. It is therefore important that this book be read not just as another contribution to the field of fisheries. With many publications having been generated over a period of more than a decade, interactive governance has moved beyond the initial formative and combative stage. It is now time to bring the perspective to other sectors that are confronted with similar concerns and governability challenges. This will be the aim of the upcoming compilations by the Fisheries Governance Network.

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