

Interactive fisheries
 *governance:*
a guide to better practice

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Foreword

This practitioner's guide is the outcome of a three-year collective exchange of ideas that arose out of concern with the way in which fisheries governance is commonly conceived and practised. The enhancement it proposes is interactive governance, which is based on the idea that the challenges in fisheries can be addressed only if the participants work and learn together. The contributors to this practitioner's guide are part of the network FISHGOVFOOD (now known as FISHGOVNET), which includes natural and social scientists from around the world. The Centre for Maritime Research (MARE) in the Netherlands acts as the network co-ordinator. SISWO/Social Policy Research provided the necessary facilities.

Complementing the practitioner's guide, the network has released a more comprehensive academic study on the topic of fisheries governance entitled *Fish for Life: Interactive Governance for Fisheries*, which is published by the Amsterdam University Press.

We thank the European Union (project number ICA4-CT-2001-10038) for its financial support, and Cornelia Nauen for her backing. The Technical Centre for Agricultural and Rural Cooperation (CTA) delivered support for distribution to ACP-countries. Rathindra Nath Roy went beyond his role as facilitator, also providing a valuable input into the content of the volume. S Jayaraj illustrated and designed the book, and Michael Pickstock was responsible for language editing.

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partageons les connaissances au profit des communautés rurales
sharing knowledge, improving rural livelihoods

The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention between the ACP (African, Caribbean and Pacific) Group of States and the European Union Member States. Since 2000, it has operated within the framework of the ACP-EC Cotonou Agreement.

CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development, and to strengthen the capacity of ACP countries to produce, acquire, exchange and utilise information in this area. CTA's programmes are designed to: provide a wide range of information products and services and enhance awareness of relevant information sources; promote the integrated use of appropriate communication channels and intensify contacts and information exchange (particularly intra-ACP); and develop ACP capacity to generate and manage agricultural information and to formulate ICM strategies, including those relevant to science and technology. CTA's work incorporates new developments in methodologies and cross-cutting issues such as gender and social capital.

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The Centre for Maritime Research (MARE) is an interdisciplinary social science centre affiliated with the University of Amsterdam and Wageningen University in the Netherlands. MARE's mandate is to generate innovative, policy-relevant research on marine and coastal issues that is applicable to both North and South. Its activities include the bi-annual People and the Sea conferences, the maritime studies journal MAST, and the MARE Publication Series (together with Amsterdam University Press).

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About this guide

If you are leafing through this guide and wondering whether it can really make a difference to your work, the chances are that you are in the business of managing and administering fisheries and aquaculture or, as this guide would say in a more inclusive and wider sense, you are in the business of fisheries governance.

Governance is the whole of public as well as private interactions that are initiated to solve societal problems and to create societal opportunities.

1.1 Who is this guide intended for?

If you are a policy maker, administrator, fisheries or aquaculture scientist, or are associated with a government agency dealing with fisheries, aquaculture or aquatic resources, this book is meant for you because you are obviously involved in fisheries governance. But, this guide is for others too. As the guide explains persuasively, fisheries governance today involves many other parties, who need to be included in the process, and, in fact, are already involved. These ‘governors’ could include members of fisher associations and cooperatives, people involved in managing market chains, members of civil society and non-governmental organisations, and even consumers associations: just about anyone who influences and has a stake in the various processes that take fish from their ecosystems all the way to consumption. This guide is very much intended for all of you.

1.2 What did the guide grow out of?

Before we tell you what this guide is about and how we think it will add value to your efforts, let us briefly sketch how the guide came about. In August 2001, the European Commission’s Research Directorate supported the Centre for Maritime Studies (MARE), a part of the University of Amsterdam and Wageningen University in the Netherlands, to set up a network of policy makers and academicians from around the world, to deliberate on the problems and opportunities that face fisheries and aquaculture in the ‘South’ as well as in the ‘North’. The FISHGOVFOOD network,



as it came to be known, met regularly to address the challenges of governance of fisheries and aquaculture in the context of livelihoods and food security, and an important result of their deliberations was a book called *Fish for Life*:

Interactive Governance for Fisheries (the Appendix includes a list of the network's members and their institutional affiliations). *Fish for Life* takes readers through fisheries and aquaculture systems, starting with the



ecosystem and moving through capture and culture to marketing, processing and consumption. In the process it highlights the situations, the concerns and challenges faced by fisheries and aquaculture, discusses the nature of the problems and, ultimately, proposes a governance system that could address such challenges. This holistic and interconnected way of looking at fisheries/aquaculture systems is referred to as the 'fish chain' and is introduced in Chapter 2 of this practitioner's guide. *Fish for Life* is ideally suited to support academic courses and training programmes for fisheries practitioners and managers. Whereas the focus is on small-scale fisheries that provide millions of poor people with livelihoods and food security, the network members recognised that the problems and challenges in the North and the South are in many ways similar and, in addition, unavoidably connected.

Even as the network members were developing *Fish for Life*, they realise that they were being forced by their deliberations to look at fisheries governance in a new light. It provided new ways of giving meaning to fisheries and aquaculture processes and provided insights not only to the challenges, concerns and hard choices that face fisheries governance but also into their very nature. Thus, it suggested the characteristics that possible solutions should have in order to match the nature of the problems encountered. It became obvious that fisheries governance could be strengthened through using such a lens. The result was this smaller book aimed at fisheries governors to act as a practitioner's guide, a travel guide, as it were, to help navigate the otherwise murky waters of fisheries and aquaculture.

1.3 What does this guide offer?

- It promotes a mindset: a new way of perceiving, a new way of understanding fisheries and aquaculture processes;

- It provides an understanding of the nature of processes and challenges, thus suggesting the solution packages that can match the diversity, complexity and dynamics exhibited by the fish chain;
- It provides a framework to understand the governance approach;
- And, based on the learning and best practices emerging from fisheries development and management experiences on the one hand and the exploration into fisheries governance aspects on the other, it provides a set of ‘guiding principles’ or precepts.

The guide promotes a new way of understanding fisheries and aquaculture processes.

This practitioner’s guide builds upon the analysis presented in *Fish for Life*. However, it goes several steps further in developing a policy angle. Fisheries and aquaculture systems, as well as the world they are embedded in, are diverse, complex and dynamic. The current global crisis in fisheries and aquaculture is of grave concern and a challenge to everyone, including policy makers, practitioners, researchers, resource users, and particularly poor fishworkers in their millions. Major concerns are ecosystem health, social justice, livelihoods and employment, food security, and food safety. Fisheries and aquaculture systems are uncertain and unpredictable, and their management has to deal with the multiplicity of stakeholders, often with conflicting interests. The approach to deal with these concerns and challenges has to match the diverse, complex and dynamic nature of the system. ***Thus, the ‘interactive governance approach’ to fisheries is introduced to address diversity through inclusiveness, complexity through rational, holistic, integrative approaches, and dynamics through an interactive and adaptive framework. This governance approach is principle-based, with an emphasis on interactions and partnership building. In the process, learning takes place through systematic evaluation and feedback.***

It is important to understand that what is being recommended is not to replace the existing governance system with a ‘more successful’ one. Rather, what is being suggested is that all governance systems stand to benefit from strengthening, that is gained through a shift in perceptions.

The guide explores three policy implications in particular:

All governance systems stand to benefit from strengthening, gained through a shift in perceptions.

1. How can the values and principles, that underlie all fisheries governance, be incorporated into the governance effort? Too often governance is focused exclusively on goals and means. This is a result of the urgent nature of events in fisheries and the need to act rapidly to resolve crises. But, in doing so, policy makers fail to bring into the open the underlying values, norms and concerns, where they can be discussed and incorporated into a vision.



2. What, if any, are the implications of including other actors/ stakeholders into governance as partners? Like natural systems, human systems too are complex, diverse, and dynamic, and therefore, in order to be effective, these characteristics must be reflected in governance systems that deal with them. Further, irrespective of stakeholders' feelings for each other, many are and will be involved in governance. Partnership is therefore a must. The issue is, how can one go about it?
3. As natural and human systems are dynamic, governance too must be flexible and open to change. Learning through feedback is therefore an essential feature of successful governance systems, and the extent to which learning is built into a governance system is a sign of how well the system assures quality. Then, how does one go about transforming fisheries management systems into governance systems that learn, respond and change?

1.4 What can this guide help you to do?

This practitioner's guide can:

1. Enable the reader to understand the interconnectedness of fisheries and aquaculture chains, and the many scales at which the chain functions;
2. Demonstrate the diversity, complexity, and dynamics of both the natural and human systems involved, and argues that this makes them difficult to predict and control;

3. Confront the reader with the need to involve the multiplicity of stakeholders/governors in fisheries governance, as their influence would be felt (and would be more difficult to influence in return) even if they were excluded;
4. Warn about challenges faced by fisheries governance that exceed the carrying capacity of the ecosystem and of management systems;
5. Raise concerns that fisheries governors have to take into consideration, such as ecosystem health, livelihood and employment, social justice, and food safety and security, and underline the difficult trade-offs among them;
6. Show that governance is much more than what is traditionally considered as management;
7. Propose, therefore, governance systems that address a) diversity with inclusiveness; b) complexity with holistic and integrative approaches; and c) dynamics through interactive learning;
8. Introduce the concept of governability as a tool to assess the state of existing fisheries;
9. Suggest governance systems that use partnership and learning approaches, and are based on agreement with regard to values and principles, and
10. Convince practitioners that the only way to cope with complexity, diversity and dynamics on the one hand, and with hard choices on the other, is through creating governance systems that are inclusive and adaptive through learning, with a solid foundation of principles to help with navigation.

The only way to cope with complexity, diversity and dynamics on the one hand, and with hard choices on the other, is through creating governance systems that are inclusive and adaptive through learning, with a solid foundation of principles to help with navigation.

What the guide does not do:

- Tell you where your destination precisely ought to be — that is something governors have to decide in the context of the system that they are faced with governing;
- Provide a recipe for transforming governance systems into principled, learning systems that are inclusive, simply because it cannot do so — the uniqueness and specificity of each system will require the evolution of particular approaches and solutions;

- It does not tell you, show you or even provide the skills to make your governance system more inclusive by involving all stakeholders, because there is a vast literature on the subject, and expertise that one can access when in need;
- It does not tell you, show you or even provide the skills to develop a learning, adaptive system because, here again, there is both knowledge and expertise available elsewhere to which the few pages of this guide cannot do justice.

1.5 How the guide is organised

The first chapter is like a travel guide: it tells you what your journey is about and why you should take the journey in the first place. It also gives an insight of the landscape you will be traversing and what to watch out for. Some hints, some suggestions and a few warnings wrap up the chapter.

The second chapter outlines the challenges, concerns and hard choices facing fisheries in South and North, as they emerge from the workings of the fish chain. It then delves into the nature or characteristics of these challenges, building up to the need for a governance system that responds to these characteristics.

The third chapter describes what the new interactive governance approach is all about, providing a framework to organise the information that we already possess. It also helps to understand how individuals, groups and organisations, and institutions behave to give life to governance systems.

The fourth and final chapter introduces the concept of governability, which assists in assessing the condition of existing fisheries. It suggests three ways to strengthen governance: by introducing a discussion of principles and values; by promoting inclusion through partnership; and by learning to adapt and assure quality.

1.6 Is there a right way to use this practitioner's guide?

Yes and no. One sure way would be to read it from beginning to end, in the old-fashioned way. But the very fact that you are involved in fisheries governance suggests that you are very busy and do not have the luxury of time. So, you could read Chapter 1 to get an overview, Chapter 2 to appreciate the nature of problems, concerns and hard choices you often face, and then jump to Chapter 4 to see how to begin to 'walk the talk'. But, you really should read Chapter 3 to understand the talk, even if you do so after Chapter 4.

Chapter 3 is difficult to digest because the subject is complex. In the past (and even today) a preferred way to deal with complexity has been to simplify. But, after understanding the reduced parts in their simplicity it was always difficult, if not impossible, to reconstruct the original complex whole. And that, as this guide points out, is one of the main reasons why fisheries governance is in the mess that it is: because, instead of confronting and understanding complexity, we chose to simplify. So, to cut a long story and this chapter short, please do read Chapter 3 sooner rather than later.

*After having read the guide, and even while reading it, you may want to peruse and refer to **Fish for Life: Interactive Governance for Fisheries** (Amsterdam University Press 2005, ISBN 9053566864).*

1.7 An invitation to join this ‘work in progress’

The authors of this practitioner’s guide and the members of FISHGOVFOOD see this as ‘work in progress’, which will evolve as readers and practitioners feed in their insights from practising the ideas in the guide. They invite your thoughts, comments, suggestions and learning, which in turn will help generate future editions. Please visit the website of the network at www.fishgovnet.org to join the network and contribute your thoughts.





Challenges and concerns in fisheries and aquaculture

Those involved in governing fisheries and aquaculture are involved in solving problems, creating opportunities and guiding the development of the sector in order to achieve a variety of goals. Fisheries and aquaculture are difficult areas to deal with as they pose many challenges and concerns. If these challenges and concerns are to be addressed adequately by those involved in governance, they first have to understand them and their characteristics. This understanding of the ‘nature of the problem’ will then help in evolving means to strengthen governance systems. In other words, the nature of the solution should be determined by the nature of the problem that it sets out to solve.

The nature of the solution should be determined by the nature of the problem that it sets out to solve.

This chapter begins with the challenges that are often faced in fisheries and aquaculture. Having listed the challenges, to reaffirm what fisheries governance is up against, it pauses to introduce a new, integrated way of looking at fisheries and aquaculture, called the fish chain, which highlights the interconnectedness of ecosystems, fishing and fish farming, processing, marketing and consumption which due to administrative boundaries are often dealt with separately. It also highlights the fact that there are many actors involved in the chain who, whether we like it or not, are involved in governance, because they influence what happens and their actions



impact on the process. Lastly, the fish chain emerges as hugely diverse, complex and dynamic, which, to make matters even worse, operates simultaneously at several scales.

This chapter, having armed the reader with the fish chain as a framework, moves on to consider the kinds of concerns that occupy the minds of those involved in fisheries governance – concerns like ecosystem health, social justice, livelihoods and employment, food security and food safety. Often these concerns are raised at the same time and are in conflict with each other, in the sense that a solution for one may be a problem for the other. The challenges and concerns also highlight the ‘hard choices’ fisheries governors often face and are forced to address. Conserving resources, increasing employment opportunities in fisheries, sustaining communities, ensuring the food security of the poor, increasing export earnings, are all worthy objectives. However, they are not easily reconciled and confront fisheries governors with hard choices.

The chapter ends by drawing the lessons out of the fish chain and the challenges, concerns and hard choices facing fisheries governors to synthesise the characteristics or the nature of the problems that confront fisheries governance.

2.1 Challenges

Capture fisheries worldwide are generally perceived as being in crisis. Aquaculture is often seen as a solution to meet the increasing demands for fish and to offset the sometimes declining production from capture fisheries, but there are concerns about its rapid growth and impacts on the environment and society.

2.1.1 Challenges in capture fisheries

The most visible sign of crisis in capture fisheries is the levelling off of the total world catch since the 1990s (FAO, 2002). The situations and trends in fisheries throw up several challenges.

- Marine resources in many parts of the world are showing signs of severe overexploitation. There does not seem to be agreement, however, on the form and content of restoration and the conditions under which it might be undertaken.
- The number of people employed in fishing is increasing, most obviously in developing countries. Many policy makers face difficulties in restricting entry into capture fisheries.
- Reduction of fishing capacity is generally agreed to as being necessary and yet is proving difficult to achieve.

- The international trade in fish products has rapidly increased. For governors, this poses a hard choice between exploiting market opportunities to earn foreign exchange and safeguarding the interests of fishworkers and consumers. Although the former may offer benefit in the short term, it will have significant long-term social and economic costs.
- In spite of regulatory efforts, many conflicts take place, e.g. between small-scale and large-scale fishers. Such conflicts have a bearing on social justice and efficiency, and have significant political fallout.
- Many countries have signed international agreements that have implications for the fisheries sector and commit their governments to far-reaching changes. However, implementation is a problem and this is often further aggravated by contradictions between local, national and international agendas.
- There is a serious lack of information and knowledge on the functioning of the fish chain. This impedes the governance and management of fisheries.

2.1.2 Challenges in aquaculture

Aquaculture is frequently regarded as a panacea for the incapacity of capture fisheries to meet the increasing demand for fish products. The path to 'responsible' aquaculture, however, is strewn with many a challenge, such as those listed below.

- Planning the expansion of aquaculture while recognising its limits and its opportunities for integration with development of other sectors, e.g. balancing and reconciling the relationships between capture fisheries and aquaculture or, indeed, between aquaculture and agriculture;
- Choosing which species to farm and where to farm them, while keeping in mind their environmental implications;
- Maximising employment and nutritional benefits for people while understanding, mitigating and managing environmental impacts.

Challenges such as these will be easier to understand by looking at fisheries and aquaculture in a holistic manner, in the context of the fish chain.

2.2 The fish chain

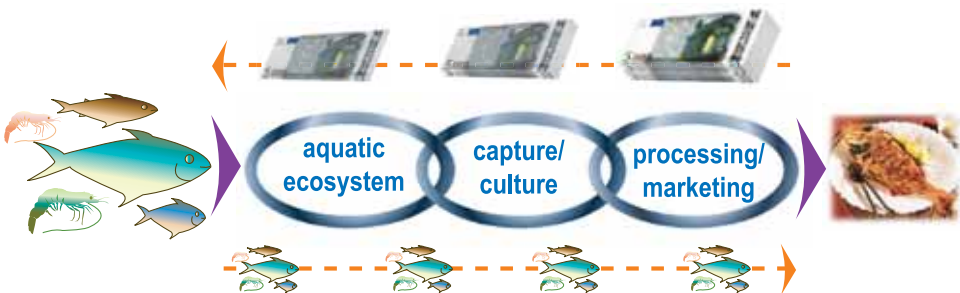
The FISHGOVFOOD network uses the term fish chain in order to emphasise the connections between ecosystems, production, distribution, and consumption of aquatic products, both in capture fisheries and in aquaculture, and it provides an elegant and useful perspective. These connections need to be seen as a whole because, although each part of the fish chain has its own characteristics and dynamics, they also affect each other fundamentally. It is impossible to deal with one part of the fish chain without affecting the others. Figure 1 presents an overview of the fish chain as a flow chart, in which fish or other aquatic products move from left to right and their equivalent - generally money - moves from right to left.



The fish chain has three links that correspond to three stages in the movement of fish products from ecosystem or farm to the consumer's plate. These phases are: the aquatic ecosystem, the activity of capture or farming, and the passage of the product from the landing point or farm, through processing and distribution channels, to the consumer. Each link in the fish chain has many variations and operates at different scales.

Each part of the fish chain has its own characteristics and dynamics. It is impossible to deal with one part of the fish chain without affecting the others.

Fig. 1 The fish chain



Clearly, fisheries score high in diversity, complexity and dynamics. These

Fisheries score high in diversity, complexity and dynamics.

characteristics arise at all

stages in the fish chain and at a wide range of spatial and temporal scales.

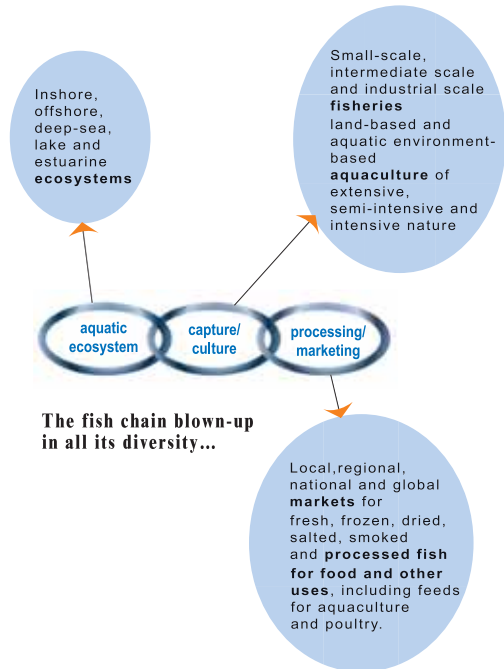
The *diversity* in types of fisheries mirrors the combined diversity of resource types and the human systems that exploit them. This continues through into diversity of post-harvest arrangements, depending on the local, national and export demands for various types of products. For example, artisanal or small-scale, rural fishers using small vessels and simple gear may serve local food demand or may contribute to a larger system that collects and processes the product for export. Much descriptive material is available on the biophysical diversity of fisheries and their supporting ecosystems. And the literature on the diversity in human aspects of fisheries systems, though much less, is growing.

Aquatic ecosystems can, at the very least, be divided according to their location into *inshore, offshore and deep-sea ecosystems* (but also in many other ways). Capture fisheries range from *small-scale fisheries*, with simple technologies, to *intermediate-scale fisheries and industrial fisheries*. Finally, the post-harvest link can be divided according to the location of markets: *local, national or international*. Where the links intersect, ‘inputs’ are converted into ‘outputs’. Thus the various aquatic resources can proceed through various harvesting channels to various markets. These also include markets for fish meal and non-consumptive uses.

Aquaculture has a different production process. Fish are farmed in controlled land-based or aquatic environments, in many cases merging with the capture fish chain where the post-harvest link starts, although interaction with capture fisheries resources at the ecosystem level is recognised. There are many differences in types of aquaculture too. Scientists and managers commonly use variations in nutrient input to distinguish between *intensive, semi-intensive and extensive aquaculture*. From a socio-economic point of view, it is useful to differentiate *smallholder firms from industrial companies*.

Complexity in fisheries arises in relation to the multiple linkages that occur within the chain and between fishery and non-fishery activities. At the ecosystem level, the inter-relations of species with their biophysical environments generate variability. Some variations are predictable, such as seasonality, and some are unpredictable, such as those caused by environmental anomalies.

At the human system level, there is an increasing appreciation of the importance of understanding the interweaving of fisheries-related activities with other livelihoods activities. Complex livelihood strategies appear in both rural and urban settings, incorporating activities such as foraging for firewood, construction labour, taxi driving and agriculture. Increasing attention to livelihood strategies has sharpened awareness of diversity and complexity issues relating to people. In the past, development planning in fisheries, as in most other sectors, was a top-down affair, and gave little or no acknowledgement to stakeholders' views or to their institutions. And yet, these are not only meaningful for development but also often make the difference between success and failure.



Dynamics in fisheries derives from the multiplicity of linkages within which there are feedback loops, as well as from the uncertainty due to unpredictable external factors ranging from environmental effects on fish stocks to global markets. Actors continuously change their behaviour to buffer negative effects and to take advantage of opportunities. For example, fishers are notorious for finding ways around regulations. As a result, like the forces that drive it on, much of the dynamics in fisheries is unpredictable.

Diversity, complexity, and dynamics of fisheries are often further aggravated by scale-related issues that can be found everywhere in fisheries. At all points in the fisheries chain there are processes taking place on different *spatial, temporal and organisational scales*. For example, at the national harvesting level, one may think of fisheries as being described by several axes:

- *Resource scale*: small local stock or large wide-ranging stock;
- *Fishery scale*: small vessels and simple gear or large vessels with electronic and hydraulic gear;

- *Administrative scale:* small or large fisheries agencies, and national versus regional and international administrations.

All these form a complex multidimensional space in which fisheries ‘humans-in-nature’ systems operate. And yet the various links (and parts) in the fish chain are frequently viewed and addressed in isolation. Changes and characteristics of actions in different stages and parts of the fish chain exert influences on the whole. Consumer preferences, for example, may affect strategies, directing harvesting activity towards certain target species. Likewise, the introduction of preservation schemes may determine whether a certain market can be serviced and consequently a fish chain comes about or not.



The fish chain provides a new framework for understanding the diversity, complexity, dynamics and scale-related aspects of challenges and concerns that confront fisheries governance. Figure 2 shows how situations and trends emerging from the fish chain generate challenges and concerns, several of which are hard choices.

2.3 Concerns

Four concerns seem to pervade the minds of policy makers, politicians and stakeholders throughout the globe. They are reflected in international agreements, declarations, and visions, such as, most recently, in the Millennium Development Goals. The emphasis given to each concern, however, varies according to geographical location and historical period. All the challenges faced by fisheries and aquaculture in turn raise the concerns of ecosystem health, social justice, livelihoods and employment, and food security and safety.

2.3.1 Ecosystem health

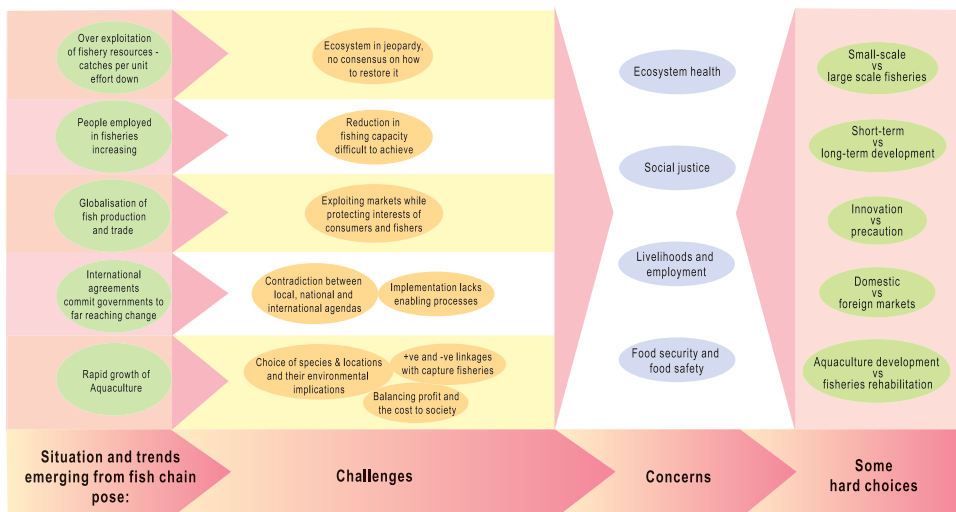
Ecosystem health became a global concern at the Earth Conference in Rio de Janeiro in 1992 and is now part of the Millennium Development Goals. In capture fisheries, it achieved recognition with the levelling off world catches, and the realisation that intensive fishing has caused important declines of aquatic biomass. There is evidence that aquatic ecosystems throughout the world are negatively affected by human activity, albeit to different extents. The ecosystem approach to fisheries

management that is currently promoted is based on the premise that healthy fisheries depend on healthy ecosystems. Thus concern for aquatic ecosystems that support capture fisheries has moved to centre stage in fisheries governance. The *FAO Code of Conduct for Responsible Fisheries*, endorsed by governments around the world, recognises the need to protect and restore aquatic ecosystems.

Fish farms and their surroundings are also ecosystems, and the failure to recognise their carrying capacity for farmed fish has been a major reason for the history of boom and bust cycles in aquaculture. Extensive fish farms, in which water and other resources are shared equitably with other uses, can be significant contributors to or have significant negative impacts on coastal ecosystem health.

Long-term maintenance of ecosystem health is in conflict with the short-term interests of many stakeholders and policy makers. People are concerned about jobs and income now, and are often unwilling to defer their present needs for the future. Governments wish to maintain or improve the country's economic position, and need to decide on trade-offs between different objectives. Therefore, in several countries, ecosystem health often still has a lower priority than economic growth. This is an example of a hard choice in fisheries governance because choosing to protect or restore ecosystems may directly impact human livelihoods in the short-term, often those of the poorest who have few

Fig. 2 Challenges, concerns and hard choices



alternatives. The information available to decision makers is limited and this makes it difficult to come up with solid predictions of future outcomes of present actions. To compound this, the complexity, diversity and dynamics in fisheries lead to unpredictability and uncertainty. Consequently, expected long-term gains for short-term sacrifice cannot be assured even though believed to be likely. According to the Precautionary Principle, less information demands greater precaution. Persuading decision makers to make precautionary decisions that favour resource sustainability has been and will continue to be a major challenge for fisheries governors.

Long-term maintenance of ecosystem health is in conflict with the short-term interests of many stakeholders and policymakers.

2.3.2 Social justice

Fisheries and aquaculture involve people of North and South, rich and poor, the privileged and the unprivileged, the organised and the unorganised, and those with much political and bargaining power and those with little. Considering the very nature of the fisheries sector, where distribution issues between stakeholders seem to surface regularly and often, such as with rights of access to common pool resources, it would be prudent to assume that fisheries is prone to conflict and breaches of justice.

All cultures, religions and philosophies have views on what constitutes social justice, and all politicians and policy makers are faced with appeals to their conscience. Social justice is directly related to power and poverty, and indirectly to resource conservation. Fishworkers often have few alternative sources of employment and little or no bargaining power, and their usual response when prices fall or resources become depleted is to increase the fishing effort. It is true that the overfishing that destroys the resource base is a source of poverty, but poverty induces people to overfish. If poverty induces people to overfish, a reduction of poverty should relieve pressure on the resource. And one of the strategies to achieve a reduction of poverty is to help fishworkers to organise and empower themselves.

The balance of opportunities and rewards between men and women is an important dimension of social justice.

Social justice is related to power and poverty, and also to resource conservation.

There is evidence, for example, that trade policies in particular have negative impacts on women making a livelihood from processing or fish trade. This has implications for household food security and well-being, given the key role women play in looking after their households. Gender issues therefore require attention.

Fisheries managers are concerned about social justice, not only within the fisheries sector, but also between fisheries and other sectors. In many countries, people in fisheries suffer relatively more deprivation than in other sectors. If the governance of fisheries does not take social justice into consideration, it may find its initiatives derailed by protests, agitations and litigations raised by aggrieved stakeholders.

2.3.3 Livelihoods and employment

How many people in the world are employed in fisheries and aquaculture? FAO data suggests a global total of 36 million. Other experts, however, estimate as much as 200 million or more. The largest numbers of fishers and fish farmers are found in Asia.

FAO figures indicate that from 1970 to 2000 the number of fishers and fish farmers increased on all continents. The rate of employment growth, however, is extremely variable, being least in European fisheries (<20% on average, with the workforce in some OECD countries even shrinking) and greatest in Asian fisheries (>300% on average). Similar information is not available for the post-harvest sector, but it is likely that it has experienced substantial growth in the rate of employment also.

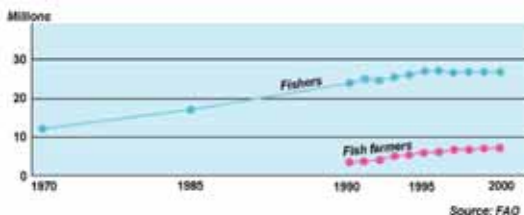
FAO argues that in the future, in rich economies, with steady economic growth, the labour force involved in fisheries will shrink. In poor countries, with weak economies and where employment alternatives are lacking, capture fisheries will, however, probably continue to absorb large numbers of newcomers. This poses significant problems for policy

Fig 3. Distribution of fishers and fish farmers



Source: FAO

Fig 4. World fishers and fish farmers



Source: FAO

makers, who are intent on reducing fishing pressure. This is another hard choice decision facing fisheries governors.

In poor countries capture fisheries will probably continue to absorb large numbers of newcomers.

There is more to a livelihood than employment. To what extent are fisheries and aquaculture able to provide, in the terminology of the ILO, ‘decent work’? Capture fishing is known to be one of the most dangerous occupations, and increasing attention needs to be paid to issues of work safety.

2.3.4 Food security and food safety

Fish has long been recognised as healthy food and has been heavily promoted as such in many countries. It is rich in high quality protein, vitamins, minerals and essential fatty acids. For many poor people in the South fish is an essential part of their nutrition, often providing most if not all of their animal protein. In the North too fish is considered a healthy food choice and is therefore in demand.

The 1996 Rome Declaration on World Food Security provides an authoritative formulation of the principle of food security. It reaffirms “the right of everyone to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger.” Viewed in this manner, food security is basic in the battle against poverty and in upholding the Universal Declaration of Human Rights.

Policy makers frequently use concerns of food security to legitimise the technical development of capture fisheries and of aquaculture. Therefore the support for the rapid growth of capture fisheries that took place after World War II was justified by reference to the fact that it could help to feed the growing population. The development of aquaculture too has often been promoted with food security in mind. The FAO argues that aquaculture is “not just an export industry” – it shoulders “an increasing burden in the effort to feed the world’s poor and hungry”. What is of concern here for fisheries governance is that sometimes an expansion of fisheries to feed the world leads to overexploitation and



risk of collapse of fisheries, which in turn, results in loss of livelihoods and increased hunger!

With the lengthening of food chains and the increasing emphasis on hygiene, food safety has become a health concern. Fish being a

With the lengthening of food chains and the increasing emphasis on hygiene, food safety has become a health concern.

perishable commodity, food safety is a risk at all stages in the chain, and its assurance is a wide-ranging and complex task. Substantial progress has been made by WHO/FAO in developing standards for safe and healthy fisheries products through the implementation of the *Codex Alimentarius*. However, while the *Codex Alimentarius* is applied strictly to seafood products that are exported from the South it is often less seriously implemented in internal markets, leaving domestic consumers ‘unprotected’.

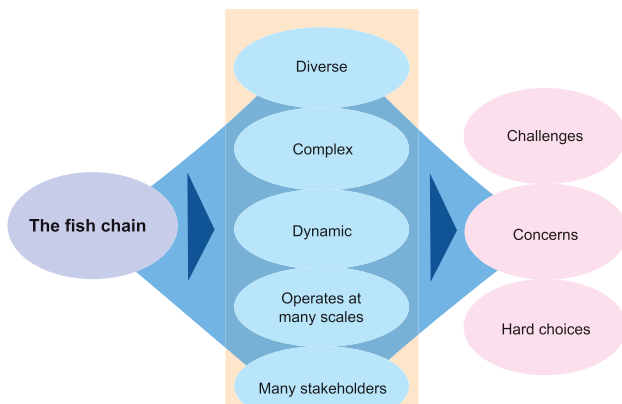
2.4 Nature of the concerns and challenges facing fisheries governance

So what can be said about the nature of the challenges and concerns that confront fisheries governance? And what characteristics should fisheries governance systems have in order to cope with the nature of the problem?

First, a holistic perspective shows that fisheries and aquaculture are extremely diverse, complex and dynamic. Moreover, it appears likely that these properties and characteristics will intensify into the future. Diversity, complexity and dynamics make challenges and concerns in fisheries governance not just more difficult to understand but essentially moving targets.

Uncertainty, unpredictability and incomplete understanding make governance difficult. It is also very difficult for governors to retain their legitimacy if they qualify their decisions and choices with uncertainty.

The multiplicity of scales of activities further aggravates the situation.



Globalisation has made governance more difficult. As local conditions and events are increasingly influenced by circumstances in other parts of the world, the ability of local

actors to oversee and shape any situation is becoming more limited. Many fish chains now encircle the globe. Distant markets exert influence on the choice of products that fishers and fish farmers aim to capture and culture. International agreements limit the options of governments seeking their own solutions to the problems at hand. Technologies and skills find their way without outside intervention. Ultimately, governance systems need to deal with diversity, complexity, dynamics and the scales of action that generate the concerns and challenges.

The bottom line is that governance systems need to deal with diversity, complexity, dynamics and the varying scales of action.

The figure on page 23 summarises the nature of the problems facing fisheries governance. First, it suggests that *the solution could perhaps lie in developing governance systems with the means to cope with the diversity, complexity, and dynamics of the fish chain, and the many scales at which it operates.*

Secondly, given the multiplicity of actors involved in the fish chain, and given that they already influence and impact on actions, fisheries governance cannot be the monopoly of governments. In practice, we find that many actors are involved in the redress of societal problems and the creation of societal opportunities. These actors frequently belong to the realms of market and civil society. As such, they are stakeholders in the fish chain. As no actor has complete power over events and developments, the positive and negative interactions between them are of crucial importance. The sum of these interactions determines what actually happens on the ground. Further aggravating the situation is that these stakeholders come with varying perceptions, agendas and power. The question is not so much whether they should be included in governance (because they are already there), but rather how to include them in ways that maximise their synergy to the benefit of governance. *Ultimately, governance systems will have to evolve the means of including and dealing with a multiplicity of stakeholders.*



Lastly, *the choices faced by fisheries governors – whether in government, civil society or the market – are rarely simple; in fact, they are invariably hard*

Governance systems need to evolve the means of including and dealing with a multiplicity of stakeholders.

choices. These choices involve many, often conflicting, concerns, and each choice is made with incomplete information. Policy makers know that they have only a partial view and understanding of the issues at hand. Moreover, they are part of larger organisational structures, involving superiors as well as subordinates, each with their own perspectives and agendas. The time that policy makers have to reflect on the decisions that they make is limited, and unavoidably they are constrained to prescribed ways of doing things.

In conclusion, the nature of the problem and the challenges and concerns in fisheries and aquaculture suggest that the solution could perhaps lie in strengthening fisheries governance systems with the means to cope with the intricacy of the fish chain on the one hand and multiple stakeholders and hard choices on the other.





The governance perspective

3.1 Is there a need for a new perspective?

If fisheries systems, as portrayed in the fish chain, are diverse, complex and dynamic, and result in hard choices, then fisheries governors will need to cope with these features and make those choices. With all the talk about fisheries governance and the need for a new perspective, there is a risk that the reader may feel that fisheries are currently not governed at all, and therefore something new is being foisted on fisheries systems. That is not true, as fisheries are currently governed! However, the crises and conflicts in fisheries would suggest that there are serious problems with past and current governance. It is necessary therefore to work with what exists, build on it, strengthen it and give it new directions. This Chapter proposes a framework to organise thinking about governance and suggests a new interactive governance perspective, that can strengthen and enhance present systems. The chapter ends by suggesting how the new interactive governance perspective can add value and give direction to the ways forward.

3.1.1 Coping with uncertainty and change

Reflection on the interconnected fish chain with its diversity, complexity and dynamics convinces us that governors can never have enough information about its ingredients and interactions. We know also that decision makers often work with less-than-perfect information. But, there is something more worrying: most diverse, interconnected systems with communication and feedback between units, such as the fish chain, are complicated and it is impossible to predict that a particular outcome will emerge from a particular action. By their very nature such systems are unpredictable.

In governance, uncertainty can be very troublesome. Governors take action in order to achieve particular future outcomes. The governed, in turn, support and invest in these actions, with the expectation that most, if not all, the predicted outcomes will come true. Imagine the chaos of not being able to predict outcomes! How legitimate would such governance systems be in the eyes of the governed? Often a surprisingly large number of ‘failures’ encountered in well-planned efforts can be traced back to unexpected and unpredicted outcomes. There is a tendency to address complicated matters with

In governance, uncertainty can be very troublesome.

simplification, but often problem definitions are too simple, policies and institutions too static and audiences too generalised. These could be the primary reasons why so much governing seems to be inefficient, ineffective, unjust and weak.

To be effective – that is, up to standards of efficiency, legitimacy and fairness – fisheries governance itself has to reflect the diverse, complex and dynamic nature of the challenges, concerns and hard choices it faces.

To be effective fisheries governance itself has to reflect the diverse, complex and dynamic nature of the challenges, concerns and hard choices it faces.

3.1.2 Dealing with many actors

One thing that strikes anyone dealing with fisheries and aquaculture is the large number of categories of stakeholders involved. Each category has its role to play, each has its own perceptions of what is going on, and of what the problems are. Each category, therefore, driven by its own perceptions and agendas, acts and influences the system. From a governance perspective one has to realise that fisheries, like societies, are made up of a large number of *actors*, who are constrained or enabled in their actions by *structures*.

Actors are any social unit possessing power of action, including individuals, households, associations, companies, NGOs, village councils, leaders, political parties, militant groups, and national, international and intergovernmental organisations. Structure, on the other hand, refers to the frameworks within which actors operate, and which they take into account. These include culture, law, agreements, material and technical possibilities, and many other dimensions that we inherit at birth; these comprise the world we live in. Actors are continuously changing structure while at the same time being influenced by it.

Governance, looked at from this point of view, emanates from many sources, as a large number of actors strive to address the issues that emerge along their path. As society does not pause, and is never in equilibrium, the totality of these governance efforts is like having many hands mould the clay on a potter's wheel. Some hands have an advantage over others, but never to such an extent that they completely determine the shape of the pot

Governance is not merely something governors do, but comprises the totality of the interactions between those governing and those governed.

being created. Moreover, unlike a potter's clay, the actors being governed react to the hands moulding them. Governance therefore is not merely something governors do, but comprises the totality of the interactions between those governing and those governed – it is itself an interaction.

Some see this involvement by a large number of stakeholders in governance as a problem. After all, they say, ultimate responsibility for governance of public resources inevitably lies with government? But consider the reality: stakeholders influence and give direction to fisheries systems and impact on them – some positively and others negatively. In these days of instant global media, awareness and judicial access, even small, insignificant groups have the power to bring government and fishery activities to a grinding stop, and examples of this occurring abound.

There is, however, another way to perceive this apparent problem. The multiplicity of stakeholders or actors, which has been the source of much conflict, can also be seen as a potential resource to be tapped rather than a problem to be solved. If the interests, agendas and capacities of stakeholders can be harnessed and guided, there is a possibility of a synergy that could benefit governance. The energy wasted in conflict could be focused on resolving problems and creating opportunities. The diversity could then, instead of seeming chaotic, be a rich source for new ideas and innovations, even as diversity provides resilience in natural ecosystems. The means to this end would involve styles or modes of governance that enable actors to come together in an equitable, just and workable manner.

The multiplicity of stakeholders is a potential resource to be tapped rather than a problem.

3.2 Defining governance

As is the case with many terms that have become part of popular vocabulary, 'governance' has different meanings for different people. This guide proposes the following definition of governance, which will be justified and elaborated upon in the course of this chapter.

Governance is the whole of public as well as private interactions that are initiated to solve societal problems and create societal opportunities. It includes the formulation and application of principles guiding those interactions and care for institutions that enable them.

The most important part of this definition is the term *interactions*, which stands at the heart of the proposed interactive governance approach. For the moment, it is sufficient to understand an interaction as a specific form of action, undertaken by actors in order to remove obstacles and tread new paths. The definition of what constitutes a ‘problem’ or ‘opportunity’ depends on the issue and the position and understanding of the viewer. The adjective ‘*societal*’ is best understood by way of its opposite, ‘*private*’, and is often replaced by the word ‘*public*’. ‘Societal’ is everything that is common, social, and collective. The definition refers also to the importance of *institutions* in governance. Institutions offer structure, order and predictability in human relations such that social actors would know how to interact, what is expected of them and what they can expect from others. Thus caring for institutions is a part of governance. The same applies to *principles*. When governors try to solve problems or create opportunities, they inevitably bring to surface fundamental assumptions, world views and ethical values for discussion and examination.

Several arguments lead to choosing the above definition.

The first is the conviction that ‘governing’ is a matter for both

public and private actors. Conventionally, governance is viewed as the task of governments, which have laws and procedures, money, and staff - in short, power - to undertake many kinds of action in the public realm.

However, governments are not the only actors capable of addressing societal problems and opportunities. People, in a variety of roles and circumstances, all over the world, and in every society, are engaged in shaping societal futures. Just as in a game of soccer, the interactions among players determine what actually comes about - whether it is exciting or boring. The view of government as only one in a range of players finds its expressions in the divisions among state, market and civil society, and the acknowledgement that each of these plays an important societal role.

Secondly, governance perspectives emphasise that the dividing lines between public and private sectors are blurred, and that interests cannot be assumed to be either public or private, but are frequently shared. In this connection, it is generally more appropriate to speak of shifting, rather than shrinking, roles of government. A reorientation of government

Without basic principles, no human relation or governing interaction can last.

Many societal problems and opportunities require the commitments of a broader set of actors and approaches.

tasks and an acknowledgement of the role of other societal actors do not make government obsolete. It implies a growing awareness, not only of the limitations of the command-and-control form of governing, but also of the fact that many societal problems and opportunities require the commitments of a broader set of actors and approaches.

This brings us to the third common element, namely, the realisation that governance is based in and reflects societal developments. In particular, contemporary governance reflects the growth of social, economic and political interdependencies. It also reflects trends such as differentiation, integration, globalisation, and localisation. These processes lengthen chains of interaction, which extend across different scales and sectors. Among other effects, the lengthening of chains increases both the numbers of parties participating in them and the number of interactions among them. This process is also taking place in fisheries and aquaculture.

3.2.1 Governance is not the same as policy or management

Before going any further, there is a need to clarify the differences between management, policymaking, and governance. These differences are not straightforward and unequivocal, and may vary with culture and language. Thus, what is termed ‘policy’ in Anglo-Saxon political culture may be termed ‘gouvernance’ in the Francophone tradition; American authors, on the other hand, may label the same phenomenon as ‘management’. Generally speaking, however, there is a sense that these terms have different shades of meaning and that they should be distinguished.

Governance is considered to be the most inclusive term, followed by (public) policy or politics, and by (public) management or (public) administration. Governance goes beyond the problems at hand to consider longer-term societal trends and needs. It does not limit itself to one particular sector, such as fisheries, but looks at the relations between fisheries and other parts of society. Governance as seen here is not the natural prerogative of government or of fisheries managers, but rather is a widely practised activity and a broadly shared responsibility. Governance transcends a problem-and-solution focus and brings in an interest in the creation and exploitation of opportunities. It balances a concern for difficulties and issues with an eye for new and promising opportunities. Governance pays systematic attention to institutional arrangements for governing activities and to the normative principles that guide them.

3.3 The interactive governance perspective

In governance, all kinds of governing activities take place, varying from short-term routine decisions aimed at small matters to the development of strategic plans pertaining to major issues and long-term developments. In the interactive governance perspective, governing activities are brought together in three interrelated categories of human activities, called ‘orders of governance’. The issue here is not of geographical or temporal scale, but layers, as in an onion, with each layer encompassing and acting on the layer below.

Solving problems and undertaking day-to-day management is what governors generally do. In the new perspective, this would be *the first order* of governance. It takes place wherever people, and their organisations, interact in order to solve societal problems and create new opportunities. The *second*

Solving problems and undertaking day-to-day management is what governors generally do.

order of governance deals with the maintenance and design of institutions necessary to solve problems and create institutions. It deals with developing the capacity to undertake first order governance by providing the guiding rules, or the way things are done. In the *third order*, or meta-governance, as it is referred to, the main normative principles and values are articulated. These guide the behaviour of first- and second-order governing.

All three orders of governance are needed for effective and legitimate governance of fisheries, both short and long term. This section proposes a framework for understanding the variety of interactions that constitute governance and how they interact with each other. It proposes guiding principles or evaluating criteria to guide behaviour of governance interactions. These provide a standard to work toward, in the process assuring quality.

3.3.1 Solving problems and creating opportunities, the first order

The day-to-day solving of problems associated with managing fisheries is the order of governance most familiar to fisheries governors. This includes enforcement of rules, resolution of conflicts within and among actor groups, dealing with shifting externalities, as well as the ways and means of acquiring the information that is required to make decisions. Problem solving, as it is often *ad hoc*, consumes much of the time of fisheries governors. Thus, it is not surprising that creating collective opportunities remains a great challenge in fisheries governance.

The ‘classical’ approach of turning to government for problem solving, and to the private sector and the market for creating opportunities is proving to be inappropriate and ineffective in modern societies. Societal problem solving and opportunity creation are public as well as private concerns. At one time one sector takes the lead, in another situation it is another, and there seems to be a growing number of social-political challenges that call for shared responsibilities and ‘co-arrangements’.

In the governance of fisheries, problems with capturing fish receive most attention these days. This is not surprising as the crisis in fisheries is related to, among other things, ‘too many boats, and too few fish’. But, is this a worldwide crisis? Are aspects of the problem the same everywhere? Who are the problem-makers – small- or large-scale fishers? And is it only the capture part of the chain to blame or also other parts; possibly even factors outside the chain? In the governance perspective, questions like these require an approach in which not only fisheries itself (in all its diversity, complexity and dynamics) should be taken into account but also the technological, economic and political factors influencing it.

3.3.1.1 Governance elements, from images to instruments to action

What do governors do in fisheries? Among other things they guide conservation and development, regulate processes, solve problems, mediate negotiations and create new opportunities. To govern, governors need ideas on the current state of the fish chain, the desired state, and how to get there. For all these ideas the term ‘images’ is used, which is broader than concepts such as goals, solutions, intentions, and purposes. To achieve the desired image/situation, governors require a set of tools or instruments; there are many available, and others may be developed. But, political support is necessary for these instruments to be put into action.

In order to govern, governors need ideas on where the fish chain is, where it needs to be, and how to get it there.

Images

Images in fisheries come in many types: visions, knowledge, facts, judgements, presuppositions, hypotheses, convictions, ends and goals. They relate not only to the specific issue at hand, such as harvesting or food security, but also contain assumptions on fundamental matters, for example, the relation between humans and nature, and the role of government in modern society. The main question is not whether actors

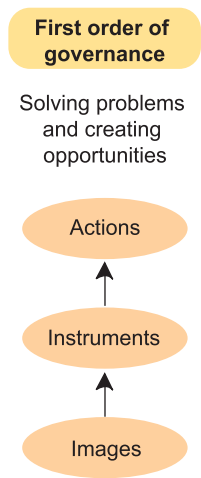
involved in governance possess images - because everyone does - but how explicit and systematic they are and how they are used to govern in practice. By checking governing images, and the processes by which these are formed and communicated, we can manage and criticise them. In the governance approach, it is important that images generated are open and flexible enough to cope with the diversity, complexity and dynamics of the objects that need governing.

Consider that there is broad agreement amongst fisheries governors that there is a strong trend towards over-fishing. Do these governors also generally agree on which forces are driving this trend? Put differently, can facts (based on knowledge and/or images) be separated from values (arising from beliefs and judgments)? It is very important to understand what comes packaged with images, and how they emerge. These questions are critical because images drive actions and therefore have consequences. For example, one of the most influential images in fisheries management in the last couple of decades has been the 'tragedy of the commons'. This image suggests that users will not conserve a common resource pool unless they can be sure that other users will do so too. The tragedy of the commons image has exerted substantial influence on management theory and practice, and provided an impetus to the movement for the privatisation of fishing rights. Not only are the results of privatisation in fisheries mixed but there has been a lot of debate also whether such an image has been misused and has in turn led to undesirable outcomes.

Instruments

The range of instruments available in governance is extremely wide. They may be 'soft', such as in the case of information or peer pressure. They may also have legal or financial roots, and involve court cases, taxes, permits, or fines. Finally, there are the 'hard' instruments of physical force. It is clear that the choice of instruments is not free; one's position in society determines the range that is available. In addition, instruments have a varying range of applicability, some being general, others more specific.

All instruments have advantages and disadvantages, some work better in certain situations than others. It can even be said that instruments have a life cycle: older ones go out of use and new ones come up to take their place. In the governance approach it is not so much the instruments themselves that need attention, but rather the instruments embedded in



their context: e.g. what problem is an instrument supposed to solve, whose problem is this, and how has it been defined? Why was a particular instrument chosen? Who are the winners and who the losers in this choice process? Was it an interactive or a unilateral choice?

Fisheries management plans are recognised as powerful instruments for drawing actors into a commonly accepted system. Traditionally, there has been a strong emphasis or even a bias towards managing with ‘technical’ instruments. Gear controls, licensing, quota systems, to mention a few, are found in the toolkits of fisheries managers all over the world. However, to be effective, governance requires that all the actors be informed of and involved in the development or choice of fisheries management plans. As in the case of images, sharing of information (amongst actors) and involving them in the development of instruments is an essential interaction in governance and must be clearly specified and built into processes.

Actions

The last element of interactive governance is action or putting instruments into effect. This includes the implementation of policies, which is a relatively dry and routine affair. However, action may also consist of mobilising other actors in a new and uncharted direction. In this case, the actors rely upon convincing and socially penetrating images, and sufficient social-political will or support. Here the interactive aspect of governance emerges succinctly.

In fisheries, governors, public as well as private, take action in all parts of the chain and at all governing levels. Locally, as private actors, fisher families or fisher organisations have the lead in day-to-day governing matters. For such actions, the role of the community, as an institutional structure, is declining in many parts of the world. The state having, at best, semi-monopolist powers in policy and rule making at the national level is reaching its limits as the primary public actor in fisheries governance. Internationally, the locus of action is shifting as the influence of public actors is decreasing, and the role of the market and civil society is growing.

The question then is, how such events and developments will affect the overall potential of societal action in fisheries governance. Answers might be found by differentiating between three forms of enabling actions: leadership, mobilisation and co-ordination. None of these are well advanced in fisheries governance, although many initiatives are taken with good intentions. At the international level, mobilising support and commitment in implementation is clearly lacking, despite the

ratification of many conventions and principles. At the national level, the state hardly serves as the co-ordinator that it should be, and at the local level, there is too little leadership to motivate, create or develop new initiatives (thus, for example, the marginal recognition of gender roles).

3.3.1.2 Effectiveness as a principle for problem solving and opportunity creation

How does one know that they are going about problem solving and opportunity creation in the right manner? Effectiveness can be considered a reliable criterion for evaluating problem solving and opportunity creation. Literature on evaluation in the public sector is a rich source of concepts on how to apply effectiveness criteria to these activities. Concepts and theory used in this literature can be adapted to evaluating first order governance.

Effectiveness is a reliable criterion for evaluating problem solving and opportunity creation.

It should be appreciated that rationalistic approaches rely heavily on deduction of causal relations, and evaluation research has developed a broad array of relatively simple to highly sophisticated methods, models, techniques and tools for accessing such causal relations. In a more interpretative approach to effectiveness, causal relations are not deduced from the outside. They are looked at more from the inside and conclusions as to effectiveness are induced through observation and interpretation.

3.3.2 Building governing institutions, the second order

Governing institutions in fisheries are, among other things, supposed to enable or to control the processes with which societal problems are solved or opportunities created. Just as in the first order of governance images lead to actions through the use of instruments, in the second order, visions lead to frameworks through rules. Institutional frameworks and rules provide the means to guide and give direction to the process of solving problems and creating opportunities.

An important second order governance activity is to design, maintain, and change governing institutions to provide frameworks for (first order) governing interactions in problem solving and opportunity creation.

In fish chains, the state has major responsibilities in the harvest sector, mainly through controlling or enabling fishing activities. At the end of the chain, market institutions govern the way fish and fish products find their ways from the natural ecosystem to the consumer. Throughout the

chain, civil society acts as guardian of natural ecosystems, through efforts to minimise environmental consequences of fishery activities. It also plays an important role in raising public awareness of risks and damages involved.

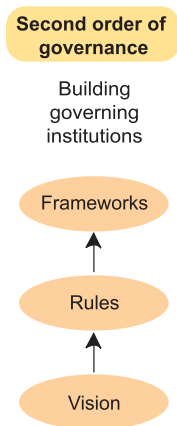
Over time, organisations often become preoccupied with activities that are outside the scope of the original terms and arrangements set for them by institutions. Governors find that they are faced with many issues that the institutional arrangements do not provide for. This can happen for a number of reasons. Circumstances may be changing faster than the institutions can adapt to them. For example, changes in mobility of fishers in opportunities for trade, or in competition for ocean space may take the system outside of the initial scope of the institutions, leaving the organisational, problem solving level with *ad hoc* measures as the only available solution. Alternatively, institutions may be unresponsive to problems identified at the organisational level, due to poor communications and feedback mechanisms.

When institutions and organisations are poorly matched with the problems that they are intended to address, they may hamper rather than enable problem solving.

3.3.2.1 Legitimacy as a principle for building governing institutions

It is generally agreed that the higher the degree of legitimacy of a management system in the eyes of its users the greater its chance of achieving its goals. This is because legitimacy will enhance respect and support among affected users, who will then be more willing to abide with the rules.

To be legitimate, rules and regulations must be in accordance with the overarching concerns and standards of stakeholders. Such rules and regulations must, for instance, be reasonable and justified. Therefore it can be argued that legitimacy is not something objective, but that it exists in the eye of the beholder. If those that are subject to power regard it as legitimate, then power is indisputably legitimate. This can be called a substantive approach to



When institutions and organisations are poorly matched with the problems that they are intended to address, they may hamper rather than enable problem solving.

A management system that enjoys a high degree of legitimacy in the eyes of its users will have a greater chance of achieving its goals.

legitimacy. Next, there are also ways to promote legitimacy in fisheries governance that depend on the processes through which such systems are developed. Thus it is common to talk about ‘procedural legitimacy’. It is generally held that democracy is a contributor to legitimacy. Active participation by those affected will make management systems more legitimate, in part because it provides them with a sense of ownership of the system.

3.3.3 Meta-governance – guiding governance with principles, the third order

In understanding the first and second orders of governance, the need for values and principles keeps coming up as a means to guide interactions, and in some ways to take the

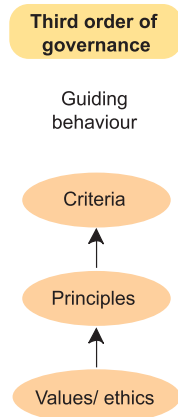
Principles guide the behaviour of actors involved in governing interactions.

edge off making hard choices. In this section on meta-governance, values, principles and criteria are advanced as the basis upon which governing practices should be evaluated, new directions suggested, existing goals examined, and new ones formulated and pursued.

Principles guide the behaviour of actors involved in governing interactions. Meta-governing is thus essential for fisheries governance. Articulating the underlying principles guides the institutional and problem solving levels. It provides transparency and makes the principles clear to all actors.

The need for fisheries governance to be based on certain principles is three-fold:

- First, fisheries governors are obliged to make explicit where their ideas come from analytically, ethically and politically. When governors select and define the problems they think should be addressed, and when they ascribe certain solutions to these problems, they inevitably draw on some fundamental assumptions and world views, which should be brought to the surface so that they can be explained, defended, discussed and evaluated.
- Secondly, there is a need for a ‘yardstick’, or a standard, something to relate to when governance practices are assessed: how do actual management systems and governance practices compare with deeper convictions and concerns?



- Thirdly, there is the need for consistency. It does not make sense to develop a policy on the basis of normative considerations, which are at odds with each other. Values are always embedded in social practices; thus we need to be sensitive to the possibility that values differ because social practices differ, and that consequently, principles or norms applying to fisheries governance may differ. Governors and governed alike must be able to identify what these values are, bring them into the discourse on governance, and decide how in practical terms they should inform collective decision-making and managing practices.

These principles have a diverse, complex and dynamic nature, just as do all aspects of governance. They are diverse because no one universal normative measuring rod for evaluating fisheries governance can do justice to the great variety of ethical and other normative expectations governing fisheries. The complicated nature of fisheries has to be represented in the normative aspects of its governance, as opposed to trying to reduce, simplify and represent it using only one or even a few normative notions. Finally, dynamics applies to the normative expectations for fisheries. Concepts like justice, responsibility and equity are not only continuously changing due to external circumstances and contexts, they are also sources of tensions and conflicts, which give rise to new definitions, substance and effects in their application.

In actual governance terms, actors will differ in the normative notions they support, resist or neglect. This is natural, but one has to be cautious about powerful actors and the interests they represent, supporting or resisting certain notions and not others, and thus determining the normative agenda. Neglecting the normative notions guiding the less powerful regions and communities in fisheries in the North as well as in the South would be a gross omission of the attention they deserve. This would also mean a loss in terms of normative insights and ethical experiences for the development of a new meta-governance perspective for fisheries worldwide.

3.3.3.1 Moral responsibility as principle

Who will guide the guide? Norm setting for meta-governance is a subject that deserves special attention. This takes us to the roots of a normative basis for governing and governance, and this basis is of an ethical nature. In the final and most basic sense, governance decisions of whatever sort have to be embedded in moral convictions. This is not a governance task left to pastors, priests, mullahs or philosophers, although they might help in phrasing the right ethical questions and pointing at directions for

answers to them. The search for plausible ethical norms and criteria guiding the governing individual, but especially governance at the collective level, has to be part of normal and continuous governing interactions. In such interactions actors or groups of actors involved in governing have continuously to scrutinise what they are doing against the yardsticks of moral principles, and take the responsibility for phrasing and explicating them. Sources for such principles may differ from culture to culture, but no culture is without them. They are not only part of meta social-political interactions, but also the foundations.

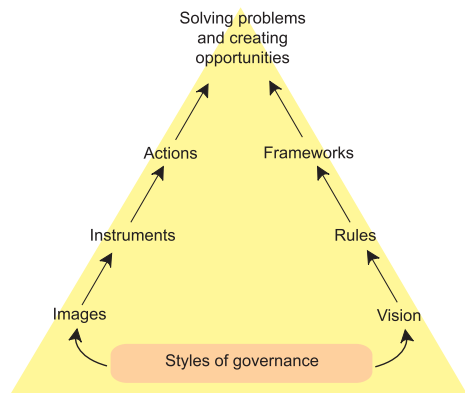
Moral conflicts or even dilemmas may arise when governing roles are taken seriously. It is exactly in conflicts and inconsistencies between principles and obligations of interactive governance, and their moral consequences, that moral principles for meta-governance itself become important. Take environmental ethics, for example. Environmental moral considerations are built on a great number of principles and can be differently viewed, based on where they are located. Anthropocentric ethics treat humans as the centre of creation, while in nature-centred ethics, animals, plants and other living organisms are seen as requiring humans to behave morally. In life-centred ethics, the complexity of nature including humans as well as non-humans is taken into moral consideration.

Recently, there is a growing interest in the discussion of governance issues with a moral character, such as seen in a call for the ‘restoration’ of a public morality. Overall, meta-governance questions and answers of such an ethical nature cannot be separated from the general moral culture of which they are part.

3.3.4 Styles of governance

It is useful now to pause and reflect on the interactions of the many actors (and governors) in fisheries and the practical ways that these are structured and brought together to generate the visions that create institutions and the images that determine actions.

In modern fisheries, an enormous range of interactions can be observed, varying from informal ones in small groups to formalised ones between states. Three types serve to categorise interactions:



the spontaneous and least formal ones we call ‘interferences’; the most formal and vertically organised ones, labelled as ‘interventions’; and those of a horizontal and semi-formalised nature, referred to as ‘interplays’. These three types can be institutionalised into recognisable patterns or styles, and for governing purposes are referred to as the three modes of governance: self-governance, hierarchical and co-governance mode, respectively.

3.3.4.1 Self-governing interactions

The most informal and fluid mode of governing interactions is of a self-governing nature; this is embedded within the societal realm of societal interferences, where individuals, families, groups, organisations, and even societal sectors govern themselves. But often this is not fully recognised in the governance of modern societies, because governing is usually equated to what formal authorities do, and not with what individuals, groups and organisations contribute to societal governance. A mature governance theory has to give a proper place to self-governing capacities and the interactions on which this capacity is built.

The three modes of governance are: self-governance, hierarchical and co-governance.

Self-governing is not a favour handed down by public authorities, but an inherent societal quality, which greatly contributes to the governability of modern societies. Certainly in many sectors of present-day societies one can encounter examples of self-governance. Liberal governments will highlight societal self-governing capacities, and socialist ones tend to downplay them. Governments may choose to deregulate or privatise, withdrawing the public sector or incorporating self-regulatory capacities in their governance frameworks. It should be emphasised, however, that self-governance is not a government-created capacity, but evolves of its own accord. In fact, without sustaining a capacity for self-governance, societal governance would be an impossible task.

Self-governance in fisheries has been a common feature world-wide, usually with a basis in local communities.

The main reason is the use of

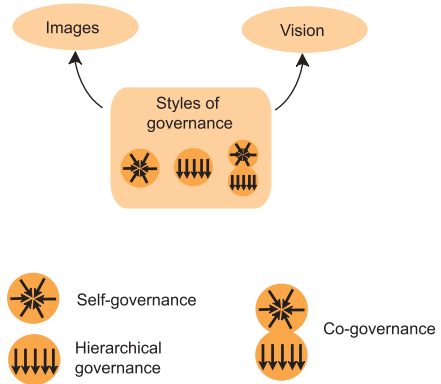
the resource as a commons, and the need to regulate its use, either for sustainability or to avoid conflicts. In the North, this governing mode in its purest form has become a rare phenomenon, but self-governance is still in operation in many parts of the South.

Self-governing is a societal quality, which contributes greatly to the governability of modern societies.

3.3.4.2 Hierarchical governing interactions

Hierarchical governance is the classical governance mode, characteristic of the interactions between a state and its citizens. It is a top-down style of intervention, with steering, planning and control as key concepts, which are expressed in instruments such as laws and policies. Although the metaphor ‘steering the ship of state’ has now become old-fashioned, the act of steering societal dynamics is still commonplace. The key element of steering is giving direction; but although the state creates the illusion of setting goals, in practice this is done in interaction with societal parties.

Hierarchical modes of governance are the most formalised forms of governing interactions, with interactions of the interventionist type. Rights and obligations are organised according to super-ordinate and subordinate responsibilities and tasks. In particular, positive and negative sanctions attached to interventions have a formalised character and are surrounded by all kinds of guarantees. In addition to laws and policies, economic instruments such as taxes and subsidies are important ways of interacting in hierarchical governing.



In fisheries, hierarchical governance is widespread. However, the role of the state does not go unchallenged, because it has had negative side effects. One of these side effects is the erosion of traditional self-governing modes and their substitution with management approaches that either do not fit or do not work. It can be argued even that the state contributes to the poor condition of the resource by subsidising the capacity to fish on a worldwide scale. It is also important to mention that although hierarchical governance is mainly connected with the state, it is also prevalent in the market sector. Recent global trends lead to situations where hierarchical governance by the state is being replaced with hierarchical governance by the market!

3.3.4.3 Co-governing interactions or partnerships in governance

The final and most recently pursued governance style in fisheries is co-governance, where societal parties join hands with a common purpose in mind, and yield some of their identity and autonomy in the process. Co-governance implies the use of organised forms of interaction for

governing purposes. A key assumption is that no one actor is in control or has all the answers; instead, interactions are horizontal.

There is a certain degree of equality in how participating entities relate to each other. Autonomy of these entities remains an important characteristic of these modes of governance. Ceding autonomy is always only partial and contains mutual agreements, common rights and duties. In the co-governance perspective, parties co-operate, co-ordinate and communicate ‘sideways’, without a central or dominating governing actor. It is these forms of governing in particular that seem better equipped than other modes in governing diverse, complex, and dynamic situations. Networks, public-private partnership and communicative governance schemes are prime examples of this mode or style of governance.

Inclusiveness lies at the heart of co-governance. This style of governance is only effective when all actors are seen as equally represented and are transparently engaged in meaningful interactions, such as open dialogue, communication and negotiation. These then result in conflict resolution and collaboration. Negative interactions and exclusiveness, on the other hand, result in rejection of co-operation and create mistrust. The co-governance or co-management model in fisheries has been well considered as an alternative to the top-down, government-based, centralised approach to management. However, it is recognised that attributes, such as self-organisation, are required of all actors, and appropriate institutional arrangements are needed to deal with the heterogeneity of involved parties, their representation in the process, their interests and will for co-operation, and their ability to share responsibility and power.

New patterns of governance stimulate learning processes that will enhance co-operation. The basis for such co-operation is aiming at compromise. Willingness to compromise means that all or most involved actors learn to share responsibility for effecting change.

3.4 Strengthening governance

How does the interactive governance approach add value to or strengthen governance? How does it help to better address the peculiar characteristics or nature of challenges, concerns and hard choices of fisheries governance? Does it help governors to cope with hard choices?

The interactive governance perspective provides a framework to organise information and thinking about systems-to-be-governed and governance systems, enabling practitioners to come to grips with a complicated

subject. By identifying and understanding the nature of the components and the interconnections between them, it helps fisheries governors to pay attention to these vital relationships and to seek opportunities to address the challenges, concerns and hard choices.

Since the purpose of this guide is to help governors add value to and strengthen fisheries governance systems, it is useful at this stage to introduce the concept of ‘governability’ to provide a means to deal with a complex subject. There are two aspects of governability. In Chapter 2, the analysis showed that fish chains by their very nature are diverse, complex and dynamic, have many stakeholders involved in them, and operate at different scales. These characteristics lead to varying combinations of challenges, concerns and hard choices. Therefore, one way of thinking about governability would be to rank fish chains in terms of their characteristics, that either facilitate governance or hinder it. For example, systems with low diversity, dynamics and complexity may be inherently more governable than those for which these characteristics are high. Another way of thinking about governability is to consider how equipped or well-matched the governance system is to address the nature and magnitude of the system-to-be-governed. In other words, is the solution a match for the problem at hand? The interactive governance perspective developed in this chapter provides a framework and lens through which existing governance systems can be scrutinised and judged, in terms of their ability to govern.

Governability is a sort of composite score to give governors an overall understanding of not only the system to be governed but the quality of the



governing system too. The concept is an idea that is being evolved and should be considered a ‘work in progress’, and it is hoped that this guide will encourage and enable practitioners to experiment with different methods and indicators in order to be able to better understand, evaluate and measure the governability of fisheries and aquaculture. Governability cannot be a static phenomenon, but is a property that is susceptible to change. What may be high governability at a particular point of time may be of medium to low governability at another; similarly what may be effective governance in one place may be quite ineffective in another.

If the governability of fisheries and aquaculture is often compromised by the fact that governing systems face difficulties in addressing the diverse, complex and dynamic nature of the fish chain, the multiplicity of stakeholders and scales of operation, then the governability of such systems could be strengthened by providing specific ways to address these particular concerns. Chapter 4 describes three possible ways to strengthen fisheries governance throughout the world.



The ways forward

4.1 Adding value with the interactive governance perspective

The interactive governance perspective helps us to look at fisheries and aquaculture in a new holistic, interconnected light. This view of fisheries and aquaculture processes provides insights into the challenges, concerns and hard choices faced by fisheries governance, and it goes further in providing an understanding of the very nature of these problems. The perspective is primarily a framework that helps to organise and guide thinking about what are essentially complex phenomena. It pins down the components of governance and the interconnections and feedback loops between them. In doing so, it ensures that attention is paid to these vital relationships.

Fisheries governors are busy people and the big question in their minds will be, can this new interactive governance perspective really add value to what I am doing? In other words, does the perspective that builds on the fact that the fish chain is diverse, complex and dynamic, and operates at many levels and has many stakeholders, help in addressing the challenges, concerns and hard choices that face fishery governors? And, does the perspective that takes into consideration that fish chains are adaptive and changing all the time, thus providing a moving target, help governors to cope with them?

To help answer these questions we return to the concept of governability introduced in Chapter 3. This concept can be central to the process of change towards good governance. Fisheries systems will differ regarding the extent to which they are governable, or have characteristics that would facilitate governance. Systems with low diversity, complexity and dynamics may be inherently more governable than those in which these characteristics are high. This will naturally influence the approach that actors agree to take. For example, a large commercial fishery using a few large vessels to exploit a few relatively stable resources (e.g. a ground fish trawl fishery) with outputs that are processed and sold in supermarkets may be more governable than a widely dispersed small-scale fishery from which products are distributed fresh by a large number of middlemen with little organisation of either fishers or distributors.

The perspective that builds on the fact that the fish chain is diverse, complex and dynamic helps in addressing the challenges, concerns and hard choices that face fisheries governors.

Ideally a change agent – a person or organisation suitably positioned and capable of generating meaningful change - would appraise a fisheries system in terms of the characteristics that determine governability. The enquiry would be directed towards the answering of the following question: in practice, are the governance system and the system to be governed well matched when considering diversity of actors, levels of organisation and capacity among actor groups, channels and networks for information flow, and inequities in actor group empowerment? The change agent may then determine where inputs would be most likely to improve governability, these inputs becoming the focus of attention.

Here it is important to emphasise that governability is not about control and power but about the properties that should enable good governance. The difference is analogous to that between a play where the actors' lines are predetermined and the director oversees the interplay, and an impromptu production where the director ensures that actors are capable and sets the stage for their interchanges, without knowing in advance what those will be.

The analysis of the nature of the challenges and concerns in fisheries and aquaculture in Chapter 2 and the analysis of the interactive governance perspective in Chapter 3 provide a framework for assessing governability.

A comprehensive assessment would explore the characteristics of the fishery to determine the nature of its diversity, complexity and dynamics. It would also examine its governance system to determine the extent to which the governance orders, elements and styles are properly reflected.

Three proposed ways forward to strengthen fisheries governance, keeping in mind the nature of the problems encountered by fisheries governors can be visualised, as shown in the

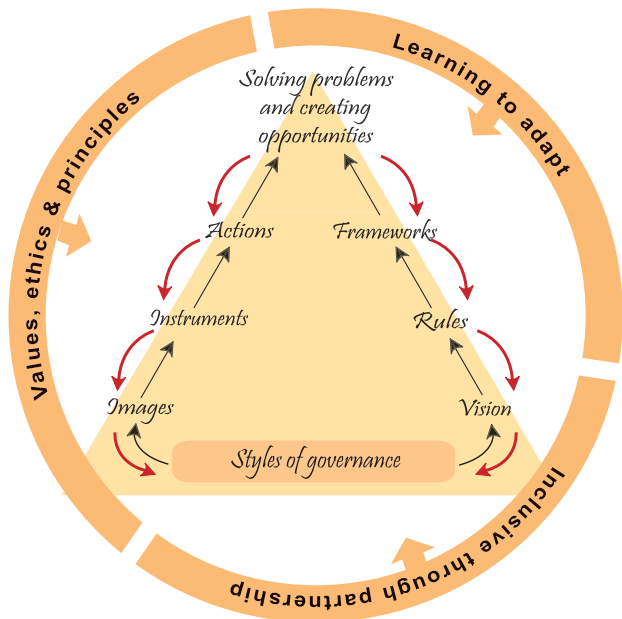


figure on previous page. This takes the basic triangular structure of the first and second orders of governance along with the styles of

governance, as developed in the interactive governance perspective, and adds the means of strengthening and adding value to governance.

The first way forward is based on the view that the presence of widely understood and accepted values and principles promotes governability, especially when formulated into a vision. This should essentially soften the hard choices that fisheries governors face.

The presence of widely understood and accepted values and principles promotes governability.

The second way forward that emerges is the need to be inclusive in governance, and the need to share in the responsibility of governance. The inclusion of all actor groups and the presence of active linkages within and among them will strengthen governability by enhancing the legitimacy and effectiveness of governance.

The inclusion of all actor groups and the presence of active linkages within and among them will strengthen governability.

The third way forward is based on the view that the capacity of a governance system to learn and adapt should enhance governability. A learning approach is perhaps the only way to cope with uncertainty and change by repeatedly monitoring progress and quality and navigating accordingly.

A learning approach is perhaps the only way to cope with uncertainty and change.

This chapter addresses these ways forward by first listing the benefits that could accrue by choosing these paths, to provide reasons for undertaking the journey. It then suggests some means to start the journey. Finally, it looks around at various other governance efforts, already being practised, and shows that these are following similar directions. In other words, the interactive governance perspective supports and strengthens other governance approaches without competing with them.

This chapter concludes by pointing out that there are no easy ways to better govern fish chains and that a principle-based, inclusive, interactive, learning approach is probably the best way forward. It also informs governors of the risks that may exist in choosing these ways to strengthen

governance, not to dissuade them, but rather to show that the risks, if judiciously taken, would be justified by the benefits of strengthened governance.

4.2 The ways forward

In this section the three proposed directions to add value to fisheries governance are developed further. The diversity, complexity and dynamics of the fish chain and its operation at several levels makes it too intricate for change to be approached as a simple, planned transition from one level or state to another. Therefore, the aim is to communicate a perspective about how to undertake the journey towards good governance, rather than to provide a how to-do-it manual. The hope is to encourage practitioners to set out on this journey, even if the way is not completely clear.

Improvements in governance, which include institutional and organisational change, are iterative, adaptive processes

during which change agents operate according to, and are guided by, certain principles or values. Often the next steps reveal themselves only after the process has reached an appropriate stage of maturity. The target or goal, which will be different for each situation, may not be in view; what is important is that those seeking to improve governance of fisheries have a strong sense of the direction that they must move in, in order to get a better view of the target and get closer to it.

The aim is to communicate a perspective about how to undertake the journey towards good governance, rather than to provide a how to-do-it manual

4.2.1 Principles and values as a foundation for fisheries governance

The first direction proposed by the interactive governance perspective highlights principles and values. It does so in the belief that principles and values structure governance; these need to be articulated, and are essential elements in the composition of a vision for a fishery.

We recognise two types of principles and values: substantial and procedural. Substantial principles and values give direction to the development of images that drive problem solving and opportunity creation, and of visions that drive the building of institutions. Procedural principles and values guide the process of decision making and interaction. The latter are crucial, as interactive governance does not prescribe any particular goals or objectives, but is largely about process.

Too often governance is concentrated exclusively on goals and means. This often follows from the urgent nature of events in fisheries and the

need to act rapidly to resolve crises. The values, norms and concerns in fisheries are often concealed, not brought into the open, where they can be discussed rationally and democratically, and then be incorporated into a vision.

What, if any, are the obvious benefits of placing values and principles centre-stage in fisheries governance?

The values, norms and concerns in fisheries are often concealed.

- Principles and values, as we have argued in Chapter 3, give structure to governance. They provide a value frame, guiding fisheries governors in assessing where fisheries are, where they should be and what means can be used to get them there.
- Principles and values, if agreed to and explicit, help make hard choices easier for governors. They provide governors with a value frame that helps make a choice between two acceptable but conflicting options by suggesting the preferred option on the basis of a higher level of logic. They also make decision making an institutional rather than a personal act, thus making the avoidance of hard choices unacceptable.
- Shared principles serve to increase the probability that partnership will evolve in the interest of all stakeholders, present and future. Thus, they serve to increase governability.

Chapter 3 presented three substantial principles that are relevant to the interactive governance of fisheries: *effectiveness*, *legitimacy*, and *moral responsibility*.

- Effectiveness relates to the first order of governance that deals with problem solving and opportunity creation. It puts into words the common-sense notion that governance activities be assessed according to their efficacy in attaining goals.
- Legitimacy is a principle for the second order of governance that deals with building of governing institutions. It is based on the notion that stakeholders involved in governance are accountable.
- Moral responsibility is the principle proposed for the third order of governance that deals with providing a vision for governance itself. It posits that governors are morally responsible for the well-being of human and natural beings that reside within their realms of influence.

We suggest that these three principles are universal and should underpin governance in all times and contexts. At the same time, however, it is clear that these principles – like all others which may be added – are open for debate. Principles and values can only become the foundation of governance systems if all the actors agree and accept them, explicitly. Unfortunately, principles are often implicit or assumed and are seldom brought to the fore, reviewed and endorsed by stakeholders.

Dialogue is needed to help all stakeholders understand and adopt the principles that will guide their governance system. Participatory methodologies for developing a shared vision and principles are becoming increasingly available. These methodologies are usually a component of an overall participatory strategic planning process. It is common to use a professional facilitator for these and other participatory processes. The facilitator should be an impartial guide with knowledge and skill in selecting and applying the methodology that would be most appropriate for the situation. The partnership base must be built on principles that are pre-agreed. Enabling policy must be explicit about the underlying principles and must provide the platform from which stakeholders can discuss and decide on these principles with the assurance that they are supported at the highest levels.

Dialogue is needed to help all stakeholders understand and adopt the principles that will guide their governance system.

In considering substantial principles and values, the world of fisheries governance is of course not starting with a blank page. Recent initiatives originating from different actor groups and levels include (see box 1):

- The Code of Conduct for Responsible Fisheries (CCRF),
- The Millennium Development Goals (MDG), and
- Sustainable Livelihoods Approaches (SLA).

Important questions concern whether the values and principles contained in such initiatives are at all complementary, and whether they are adequate in view of the range of the fish chain.

Interactive governance is compatible with many existing approaches yet aims to go further by presenting a framework for understanding and addressing the problems and opportunities of fisheries. The concept of the fish chain thus envelops natural and human processes, and provides interconnected explanations for their dynamics. Recognising that government is not the only actor, but that many stakeholders partake in fisheries governance, the interactive governance approach also provides

Box 1: Existing value frames for governance of fisheries and aquaculture

*The FAO Code of Conduct for Responsible Fisheries (CCRF)*¹

The CCRF is the most authoritative and comprehensive framework for fisheries management today. It has been extended to include several technical guidelines that help in putting principles into practice. A voluntary, non-binding agreement subscribed to by most countries of the world, the main focus of CCRF is on conservation and ecosystem health. CCRF underwrites the ecosystem approach² as well as the precautionary approach to capture fisheries and species introductions.³ While prioritising conservation CCRF also pays attention to the issue of inter-generational justice – the balancing of attention and needs for present with future generations – and to the issues of poverty and food security. Another article of CCRF emphasises the contribution of one specific human category, small-scale fishers, to employment, income and food security, as well as the need to protect their rights to a secure and just livelihood.

*Millennium Development Goals (MDG)*⁴

At the United Nations Millennium Summit in September 2000, world leaders placed development at the centre of the global agenda. The MDGs set clear targets for achievement by 2015. These goals were reaffirmed at the World Summit on Sustainable Development in Johannesburg in 2002.

The MDGs most relevant for fisheries are:

- The eradication of extreme poverty and hunger,
- Achievement of universal primary education,
- Promotion of gender equality and empowerment of women,
- Ensuring environmental sustainability, and
- Establishment of a global partnership for development.

*Sustainable Livelihoods Approaches (SLA)*⁵

SLA evolved in parallel in several agencies, including DFID (UK), UNDP, CARE International and OXFAM. SLA puts people, particularly the poor, at the centre of development. It not only brings together some of the best practices in participatory development but also offers new ways of applying them to achieve sustainable development. At its core are a set of principles and an analytical framework for diagnosis and action. The principles of SLA are 1) people-centred, 2) holistic, 3) dynamic and flexible, 4) to build on strengths, 5) to promote macro-micro linkages, 6) to encourage partnering, and 7) to aim at long-term sustainability. In fisheries the FAO, with support from DFID, is extensively testing SLA in the West African SLFA project (1999–2006).

¹ FAO 1995. *The code of conduct for responsible fisheries*. Food and Agriculture Organization, Rome, 41 p.

² FAO 2003. *Fisheries management. The ecosystem approach to fisheries*. FAO technical guidelines for responsible fisheries 4 (Suppl.2). Food and Agriculture Organization, Rome, 112 p.

³ FAO 1996. *Precautionary approach to capture fisheries and species introductions*. FAO technical guidelines for responsible fisheries 2, Food and Agriculture Organization, Rome, 54 p.

⁴ <http://www.unmillenniumproject.org/>

⁵ <http://www.sfla.org/>

opportunities for institutional partnership and rejuvenation. The linkage of day-to-day problems and challenges to the shape of institutions and the underlying principles and values provides a holistic perspective and opens up the field to new queries and solutions.

Rather than start with a dialogue on the substantial principles that guide interactions and governance, it is sometimes useful to have an easier entry point. These are procedural principles that deal with the process of building and strengthening governance systems. Some common principles are included, as an example, in the box below.

The purpose of the application of such principles is to assure that all stakeholders involved are treated as equals and have full access to the process of formulation of fisheries governance. Stakeholders may decide on various kinds of procedural principles. The acceptance of these procedural principles often paves the way for interactive governance by creating an environment wherein a proper dialogue of basic principles is possible.

Procedural principles are sometimes an easier entry point to governance.

Box 2: ‘TACIRIE’ Procedural Principles¹

<u>T</u>ransparent	Everyone sees how decisions are made and who makes them.
<u>A</u>ccountable	Decision-makers (both local and governmental) are procedurally and periodically answerable to those they represent.
<u>C</u>omprehensive	All interest groups are consulted from the outset in defining the nature of the problem or opportunity prior to any decisions about management being taken.
<u>I</u>nclusive	All those who have a legitimate interest (in particular fisheries livelihood dependent groups) are involved.
<u>R</u>epresentative	Decision-makers are representative of all interest groups.
<u>I</u>nformed	All interest groups understand the objectives of the participatory process and have adequate and timely access to relevant information.
<u>E</u>mpowered	All interest groups (women and men) are capable of actively participating in decision-making in a non-dominated environment.

¹ Hobley, M. and D. Shields. 2000. *The reality of trying to transform structures and processes: Forestry in rural livelihoods*. Overseas Development Institute, Working Paper 132. 76 p.

4.2.2 Strengthening partnership through inclusion and interaction

The second direction proposed by the interactive governance perspective is to add value to and strengthen fisheries governance systems by including the many actors and stakeholders involved through partnership. The challenges, concerns and hard choices faced by fisheries governance are in most part generated by the large numbers of actors in the fish chain. These stakeholders, even if they are not formally involved in governance, already influence and impact on processes. Governments, who in most cases have seen themselves as the legitimate governors of fisheries, often consider the multiplicity of stakeholders as a nuisance to be dealt with through exclusion. On the other hand, the interactive governance perspective sees the many stakeholders as a potential resource to benefit governance, and includes them.

Some benefits of inclusion and partnership in a governance system are:

The interactive governance perspective sees the many stakeholders as a potential resource to benefit governance.

- The diversity and multiplicity of stakeholders increases the knowledge and experience available;
- Involving stakeholders in governance ensures better problem definition, and hence better images and visions;
- Legitimacy of governance decisions is enhanced, and could mean reduced costs of enforcement and compliance, which are usually the most expensive aspects of governance;
- The diversity and greater number of ideas and solutions has a higher probability of generating innovations;
- The diversity, interconnectivity and multiplicity of stakeholders working together may be better equipped to deal with the diverse, complex and dynamic nature of fish chains;
- finally, it is just and the right of stakeholders to be heard and have the means to inform and influence processes that they are involved in or impact on.

Inclusiveness and partnership are not new to fisheries governance. In fact, they are already propagated and practised in various forms. Box 3 describes the perspectives of co-management and integrated coastal zone management. The CCRF and the SLA also emphasise inclusiveness and partnership.

These attempts to broaden participation and promote partnership are completely compatible with the interactive governance approach. Indeed,

interactive governance strengthens these approaches by presenting an encompassing framework for understanding and addressing the problems and opportunities that take place in fisheries.

Inclusiveness and partnership are not new to fisheries governance.

The way forward here is to build on what already exists and to experiment with new forms of inclusion and co-governance. Already there exists a vast

Box 3: Existing perspectives on inclusiveness and partnership

*Co-management*¹

Co-management is widely promoted as having a substantial contribution to make towards improved management of fisheries. The point of departure is that government and user groups stand to benefit from joining together to manage fisheries, and that an organisational framework should be established to this effect. There are many variations in forms of co-management. At one extreme, the government seeks information and advice from non-governmental stakeholders but retains decision making responsibility. At the other extreme, the stakeholders have full control in actions within the constraints of certain agreed principles; however, the government monitors how this control is exercised and retains the right to take it back if the agreement is not adhered to. Co-management is implemented in many countries in the North as well as in the South.

*Integrated coastal zone management*²

Recognizing the frailty of many coastal and marine ecosystems and the threats posed by a combination of human activities, participants in the Earth Summit of Rio de Janeiro (1992) emphasised the need for Integrated Coastal Zone Management (ICZM) and many governments have since embarked on its realisation. The CCRF also emphasises the need to integrate fisheries into coastal zone management. ICZM would counteract the fragmentation characteristic of coastal zone developments, and establish a comprehensive planning process, balancing short- and long-term needs of various kinds. The World Summit on Sustainable Development (2002) endorsed the global need for ICZM. Proponents of ICZM strive to establish linkages of various kinds in order to overcome the problems of fragmentation. Generally, they also stress the importance of stakeholder participation in the formulation and implementation of plans.

¹ Wilson, D.C., J.R. Nielsen and P. Degnbol (eds.) 2005. *The Fisheries co-management experience. Accomplishments, challenges and prospects*. Dordrecht: Kluwer Academic Publishers.

² For further reading on this topic see the journal entitled *Ocean & Coastal Management* (<http://www.environmental-expert.com/magazine/elsevier/ocecoaman/>)

literature not only in the fields of poverty alleviation and development dealing with participation and partnership

Interactive governance strengthens other approaches to fisheries governance.

but also in the commercial world. This practitioners' guide will not attempt to include or even summarise what already exists in excellence and quantity. Rather the attempt here is to touch upon some key tools and provide linkages and references to the literature on them.

Stakeholder analysis is a tool that helps to identify and understand the real actors and stakeholders. The understanding of stakeholders' involvement in the fish chain is important in bringing them into governance, using their competencies and capacities as necessary, and ensuring they are heard and have influence. The first phase of stakeholder analysis sets out to identify the stakeholders and to understand their roles in the system.

Understanding roles may require extensive in-depth analysis. For example, the approach to poverty reduction in low-income countries known as the 'sustainable livelihoods approach' (see box 1) is being applied to understand the strategies of artisanal fishworkers.

The second phase of stakeholder analysis seeks to determine the capacity of the groups and organisations to play their part in a participatory governance system, as

Understanding stakeholders' involvement in the fish chain is important in bringing them into governance.

prescribed by the governance approach. This capacity or empowerment includes a number of facets: the extent to which they are informed; the level of membership in the organisation; the organisational strength of the group; leadership skills; problem solving capability; and the will to participate. There is a substantial literature on stakeholder assessment, and several organisations research and develop these methods, including the International Institute for Environment and Development (IIED),¹ The World Bank,² and UK Department for International Development (DFID).³

The governance approach has a strong emphasis on interactions among groups and organisations. Whereas there may be capacity to interact meaningfully, often processes for interaction may be lacking. Stakeholder analysis has conventionally paid less attention to interaction processes, to understand what blocks interaction and what promotes it. Therefore, there

¹ <http://www.iied.org/forestry/tools/>

² <http://www.worldbank.org/participation/tn5.htm>

³ <http://www.livelihoods.org/>

is less in the literature to guide this aspect of stakeholder assessment (e.g. IIED Power Tools Series⁴). Assessment of interactions would seek to determine the presence of processes and channels that facilitate interaction, including the amount and type of interactions. Approaches could include social network analyses via the use of flow charts or matrices that allow the inventory and description of interactions, e.g. whether formal or informal, positive or negative, strong or weak, etc.

It is important to determine the capacity of the groups and organisations to play their part in governance.

Stakeholder analysis reveals where the system is deficient and leads to a plan for addressing these deficiencies through capacity enhancement. It is not the intention to review or

Stakeholder analysis reveals where the system is deficient and leads to a plan for addressing these deficiencies through capacity enhancement.

elaborate upon capacity building extensively here, but mainly to identify its important role in promoting the governance approach through enabling self-organisation. As such, it should be a central component of policy aimed at promoting the interactive governance approach. As with any complex topic there are a variety of perspectives on capacity building.

For example, one perspective distinguishes between meta-, meso- and micro- capacity:

- Meta-capacity is the ability to develop a set of principles, a vision and a mission that guides the institution or organisation;
- Meso-capacity enhancement aims to bridge the gap between macro policy levels and local communities⁵ by addressing the capacity of the institutions and organisations that play an intermediate organising role in governance, translating meta-principles to their members and providing feedback from members into meta-capacity development;⁶
- Micro-capacity is associated with the ability or capacity of local organisations and individuals.

⁴ IIED 2001. *Stakeholder power analysis*. Draft. London: International Institute for Environment and Development.

⁵ <http://www.capacity.org> Newsletter issue 22, July 2004

⁶ <http://www.snvworld.org/>

Another perspective emphasises that capacity building is much more than training.⁷ It involves a wide range of inputs that lead to the entrenchment of ways of doing business in the organisational culture. It also involves a substantial experiential component that can be referred to as ‘learning by doing’. This perspective provides the following dimensions of capacity:

- *Structural dimension* – evaluation of roles, functions, positions, supervision, reporting, etc;
- *Skills and knowledge* – knowledge, abilities and competencies for effective action;
- *Material resources* – technology, finance and equipment required;
- *Interaction strengthening* – interactions can occur at different levels of complexity ranging from exchange of data and information through decision making and strategising to the formulation of shared visions and mental models;
- *Education and public awareness* – informing others from primary to tertiary institutions and the public through the full range of media.

The conceptual literature and practical resources relating to capacity building are widely available in print and on the Internet.⁸

The match between stakeholder capacity and responsibility is critical and should be approached iteratively so that stakeholders are not expected to assume unrealistic

responsibilities. This can be addressed either by sharing the responsibility until it can be assumed fully, or by

The match between stakeholder capacity and responsibility is critical.

redesigning management systems to be simpler and appropriate to existing capacity. For example, where technical capacity is low and there is little chance that it will be possible for it to pursue conventional management effectively, simpler, less technical approaches that are consistent with stakeholder capacity should be explored. It is becoming increasingly evident that much can be achieved in fisheries management by consensus and the use of simple indicators.

⁷ Adapted from Krishnarayan, V., T. Geoghegan and Y. Renard. 2002. *Assessing capacity for participatory natural resources management*. Caribbean Natural Resource Institute Guideline Series No. 3. 21 p.

⁸ See e.g.: www.acdi-cida.gc.ca/cida_ind.nsf/0/526fd794e5c4261385256c61006405e0?OpenDocument
www.mycoted.com/creative/techniques
www.iac.wur.nl/msp/home.php
www.capacity.org

Promoting interaction through networking is an important aspect of capacity building. Similar changes in operational style are taking place in the private sector. There may be much to learn about practical relationship building strategies from business approaches to forging collaborative networks with employees, customers, suppliers, and communities. The diversity of networking or communication styles must match the diversity of stakeholders so that all groups have the opportunity to communicate in a style that is comfortable to them. Therefore, the burden of change for improved networking and interaction is distributed throughout the network, not just restricted to a few stakeholder groups perceived as having low capacity to interact.

There are many ways in which inclusiveness and partnership may be advanced. Here again there are existing examples of fisheries governance practices that aim to be inclusive through partnership. The Fisheries Advisory Committee (FAC), which have been established in many countries, serves as a practical example of how one might get started towards enhancing inclusion and interaction (see box 4). The questions asked with regard to the FAC are fundamental to developing these governability characteristics.

4.2.3 Learning to adapt and assure quality

The third direction suggested by the interactive governance perspective is to build learning into governance processes. Fish chains are by their very nature unpredictable, and dealing with unpredictable systems is like moving through uncharted territory. The only way forward in such systems is to monitor constantly where one has been and where one has reached, and then to reflect on the progress in order to move forward guided by the learning.

If fish chains are indeed uncertain and unpredictable, frequent feedback is essential. A strong learning system is essential to the interactive governance approach, and yields substantial dividends.

- It provides the flexibility to adapt to changing conditions based on the best available information from the widest possible range of actors;
- It allows one to profit from the experiences of other governors in other times and places;

A strong learning system yields substantial dividends.

- It builds up an institutional memory to fall back upon and learn from, as different from the memories of individuals in an institution (which are often not accessible to others);
- It increases the effectiveness and efficiency of processes thus assuring quality.

Interactive governance is not unique in emphasising the importance of learning systems. Monitoring and evaluation are used in most organisations, although they are not necessarily utilise as learning instruments. Still, one could argue that most organisations in the fisheries sector can improve the

Box 4 The Fisheries Advisory Committee as a microcosm of fisheries governance

Fisheries Advisory Committees are an integral component of fisheries legislation developed by FAO and adopted by many countries. They are intended to provide decision makers with access to information and perspective from the whole range of fisheries stakeholders. As usually structured they are consultative and thus towards the low end of the co-management scale. Even so, if properly established and operated, they represent a progressive step towards interactive governance. There are several questions regarding their establishment and operation that may illustrate interactive governance in a way that is more concrete for fishery policy makers and managers.

- Stakeholder spectrum representativeness – who decides which stakeholder groups are represented on the FAC, and is there a process by which the composition can change as needed?
- Stakeholder group representativeness – how is a representative chosen?
- Feedback mechanisms – are there agreed means for an individual to provide feedback to membership?
- Information collection from stakeholders – are there means of ensuring that information inputs to FAC reflect the views (and diversity of views) of the group members?
- Transparency issues – is it clear how outputs from the FAC are used by the decision makers?
- Does the FAC operate according to agreed principles, i.e. how much relative time is spent on meta level issues, second order issues and first order issues.
- How does the FAC get feedback from policy makers and managers regarding the effectiveness of its advice, i.e. how does it learn?

Addressing these questions for a Fisheries Advisory Committee can take policy makers and managers well into issues that are central to pursuing interactive governance.

extent to which they ‘learn’ from experience as well as from their surroundings.

Most organisations in the fisheries sector can improve the extent to which they ‘learn’.

Learning systems are an essential component of the interactive governance approach and are fundamental to adaptability. As in other areas of governance and institutional strengthening, private corporations have done much of the initial work in this area with a view to improving the functionality of organisations. Adapting and extending these concepts, originally designed for commercial and business operations, to a system as complex as the fish chain will be a substantial challenge, as it cuts across, private, public and civil organisations as well as local, national and international scales. Consequently, there is need for careful attention to issues of intra-organisational (intra-group) learning as well as inter-organisational (inter-group), system-wide learning.

Learning systems provide the governance system with the flexibility to adapt to changing conditions.

Rather than try to cover all that has been written on learning organisations and systems, we will attempt to give the reader a perspective on what it means to develop a learning organisation. In doing so we draw heavily on selected key texts.⁹

Knowledge management is one practical perspective on developing a learning organisation. The authors of one text emphasise that knowledge management is ‘... not about creating an encyclopaedia that captures everything that everyone ever knew. Rather, it’s about keeping track of those who know the recipe, and nurturing the culture and the technology that will get them talking.’¹⁰

The nature and implementation of learning systems required to create ‘the learning organisation’ is receiving much attention in the business world, and fisheries governance can benefit from adopting and adapting practices from this emerging discipline. A focus on knowledge capture emphasises collection and codification of knowledge, databases, access and

⁹ Collison, C. and G. Parcell. 2001. *Learning to fly: practical lessons form one of the world’s leading knowledge companies*. Capstone Publishing Ltd., Chichester, 220 p.; Senge, P. M., A. Kleiner, C. Roberts, R. Ross and B. Smith. 1994. *The fifth discipline fieldbook: strategies and tools for building a learning organisation*. Century Business, London. 593 p.; Belden, G., M. Hyatt and D. Ackley. 1993. *Towards the learning organisation: a guide*. Institute for Cultural Affairs, Toronto, Canada. 226 p.

¹⁰ Senge, P. M., A. Kleiner, C. Roberts, R. Ross and B. Smith. 1994. *The fifth discipline fieldbook: strategies and tools for building a learning organisation*. Century Business, London. 593 p.

distribution systems. There has been much emphasis on these types of systems in fisheries management, and they will continue to play an important role in increased availability of information to those who have previously had little access. Information capture and distribution increase the ‘informedness’ of participating actors and empower them to participate.

At the other end of the continuum, connectivity emphasises investment of time and energy in the processes and technologies which stimulate connections between people. This emphasis may include creating networks, building flexible teams to address specific issues, holding workshops, and developing and sharing a variety of tools for collaboration and group interaction. Emerging technologies make it increasingly easy to enhance connectivity and learning among people and organisations. The increased emphasis on facilitation of group processes also reflects the growing emphasis on connectivity as a significant component of a learning system.

Information capture and distribution increase the ‘informedness’ of participating actors and empower them to participate.

A learning organisation should have processes in place to allow learning during all stages of implementation: before doing, while doing and after doing. These three types of learning are different. *Learning before doing* involves asking the question, ‘Has anyone else done this before?’ Usually the answer is yes, or sufficiently close to it that there are lessons to be learned from what others have done. This provides the basis for a plan that adapts experience from others to the present circumstances using situation-specific knowledge. *Learning during doing* involves asking questions about how the implementation is going and whether there need to be adaptations to the plan based on unforeseen circumstances. *Learning after doing*, involves active review of what was done, the ways in which it differed from what was planned or expected, and why. Most importantly, a learning organisation has mechanisms to capture and share the knowledge acquired at all stages. Capturing knowledge involves taking learning and processing it into a useable form, whether this be guidelines or operations manuals, and the active use of these outputs in the organisational culture.

The learning process described above requires that the time be taken to practise the activities, and this must become part of the organisation’s way of doing things. It requires the creation of ‘learning environments’ in organisations. Such environments have several dimensions:

- Removal of barriers for information sharing,
- Establishment of a common operating environment,
- Processes to encourage sharing,
- Learning to ask for help, and
- Active listening.

How do these ideas translate into a fisheries organisation and the fisheries chain? Much of what is available can be taken off-the-shelf of private sector organisations. It may even be readily adapted to government agencies, but will require evaluation, adaptation and testing for organisations in other areas of the fishery chain, particularly at the level of small-scale harvest and post-harvest operations. A good place to start is with monitoring and evaluation systems and to turn them into real learning opportunities.

There is an increasing focus on integration of knowledge management systems into sustainable development initiatives. For example, The Information for Development Program (infoDev)¹¹ helps developing countries and their international partners to use information and communication broadly and effectively as tools of poverty reduction and sustainable economic growth. The Sustainable Development Networking Programme¹² has been operating at the country level, launching and supporting local Internet sites, and building national capacities and knowledge resources for use of the Internet in development. The Global Knowledge Partnership (GKP)¹³ is a worldwide network committed to harnessing the potential of information and communication technologies (ICTs) for sustainable and equitable development.

4.3 Questions you might have

How does this connect to what I am doing already?

Fisheries and aquaculture are governed, for better or for worse. And governance systems are constantly evolving to face the challenges, concerns and hard choices that these systems generate. There are several innovative examples of fisheries governance around the world. Some, like those based on the CCRF and the SLA (see box 1) have already been referred to in the section on the ways forward. Others include integrated coastal zone management efforts and co-management efforts at managing natural resources, including fisheries (see box 3). How are these similar or

¹¹ <http://www.infodev.org/>

¹² <http://www.sdn.undp.org/>

¹³ <http://gkaims.globalknowledge.org/>

different from the interactive governance perspective being recommended? Is the interactive governance perspective intended as a substitute for other governance systems?

Much of what is being proposed and implemented by numerous practitioners is similar, compatible and complementary with the interactive approach to governance.

Interestingly, and perhaps obviously, much of what is being proposed and implemented by numerous practitioners by way of new approaches to management of natural resource systems is similar, compatible and complementary with the interactive approach to governance. We can also conclude that the interactive governance perspective provides a comprehensive framework that can be used to understand and reflect on governance approaches in general. Further, and more importantly, given the generic nature of the directions that the interactive governance perspective recommends to strengthen governance, almost all the other approaches can be strengthened by paying attention to the needs and shortcomings, if any, along these directions. Interactive governance can contribute to other approaches and in turn learn from others to evolve and achieve better governance of fisheries.

What are the risks – and is success guaranteed?

Most governors will realise that there are risks in embarking on the journey towards interactive governance. Diverse, complex, dynamic systems that operate at several levels and have a large number of stakeholders are by their very nature almost impossible to understand, predict and control. Interactive governance approaches, such as inclusion through partnership, learning and a strong framework of values, principles and criteria, will enable governance systems to cope with the peculiar nature of the problems encountered. But the risk will remain. The risk associated with pursuit of the interactive governance approach can be reduced by paying attention *a priori* to the ‘governability’ of the system and by promoting those characteristics that enhance governability, but it can never be removed entirely.

The risk associated with pursuit of the interactive governance approach can be reduced but it can never be removed entirely.

There will be wrong directions taken, and the nature of the approach is such that several iterations may be required to ‘get it right’. There will be no guarantee but an increased probability for success.

Will it mean a loss of power and control?

This will be a risk consideration particularly where there has been a strongly ingrained culture of command and control. The perceived loss of control for governments, that will accompany the process of encouraging and allowing stakeholders to take a greater responsibility and to play a more active and decisive role in governance, will naturally engender a certain reluctance to try interactive governance. However, it is increasingly clear that controllability of the fish chain is a fallacy, because it never really existed: the large number of governance failures in fisheries stand witness to that. The call for alternatives to the conventional command and control approach in fisheries is also increasingly frequent and strident.

It is increasingly clear that controllability of the fish chain is a fallacy.

It is encouraging to note that the types of changes in governance being suggested here are consistent with global trends towards inclusiveness. In many fields this is manifesting itself as an increasing involvement of civil society in governance. This is fuelling and being fuelled by a rapidly growing, readily accessible literature on organisational change, both conceptual and methodological.

Who will initiate the process and take responsibility?

The question of who is responsible for promoting and enabling interactive governance of fisheries systems is important, given the number of stakeholders involved. In most countries, fish are public or common property and fisheries governance is perceived as the responsibility of the government. Although governments may have the greater responsibility to promote the interactive governance approach for fisheries, the scope of the task is too large for governments to adequately undertake on their own, and it is therefore the responsibility of all other actors to take leadership roles for implementing interactive governance. There may be occasions when governments lack the ability or flexibility to change from the conventional command and control approach to one that is more consistent with the governance approach. Governments may also be weak or unwilling to change. In such cases non-governmental actors have an even greater responsibility to act as change agents by advocating and lobbying for change, and helping people to organise themselves, and get a voice to inform and influence policy and hold governance systems accountable.

How long will it take?

Moving from present systems to strengthened governance will necessarily be a long-term effort. Institutional change requires that people and organisations change the way they look at the world and think about problems. Their approaches must change to include new ways of doing and a conviction that they are empowered to do so. Changes in the way things are done will require new competencies and capacity of people and to achieve this takes time and patience, not to mention resources. Why would people and organisations comfortable with and benefiting from the *status quo* want to change? This may require dialogue, persuasion, the right circumstances, and a carefully chosen set of incentives and disincentives. A time-tested means of enabling change, of course, is to wait and let attrition take the toll of individuals with old, die-hard thinking or to even encourage their departure through voluntary retirement or lateral or upward ‘advancement’, to be replaced by new individuals whose thinking is flexible and compatible.

Governments may have greater responsibility for governance of fisheries but the task is too large for them to undertake alone, so other actors need to take leadership roles.

Will it require organisations to change?

New functions and new ways of doing will clearly require the restructuring of institutions and organisations in the fishery chain. This will have different implications and challenges for different stakeholders. At the level of fishworkers, there will be the need to get organised for collective, representative participation in governance. This will of course necessitate the building of capacity and competencies.

In restructuring fisheries departments, the conventional model will either have to be expanded to include the new skills required, or conventional skills replaced with the new. More than additions and subtractions of skills it will require a different way of going about governance – new perceptions, new paradigms and new ways of doing business. The conventional model is one comprising a range of professional capability to cover the technical areas perceived as necessary including biology and stock assessment, economics, sociology, fishing technology, post-harvest technology, marketing and distribution, international relations and community development. This model is based on the conventional approach to fisheries management, with heavy dependence on stock assessment and economic modelling, requiring intensive data collection, technical analysis and top-down enforcement. An alternative fisheries

department structure, consistent with an interactive governance approach, would be much less technically based (lower demand for data and analysis) and much more facilitatory. The key skills would be planning, project development and management, mediation and facilitation. Currently, these are seldom taught in natural science or technical training programmes. When acting as facilitators, managers must be able to clarify the work to be done, improve group dynamics to increase productivity, build effective work processes, manage boundaries that affect the work to be done, and thereby bring about the desired changes.

Interactive governance requires new perceptions, new paradigms and new ways of doing business.

There are several implications of such restructuring. There will be a need for technical skills not often found in a fisheries department. These could be hired in on a project basis, as needed, or more likely as opportunities arise. This approach requires linkages with sources of the technical skills required. But, should one look in the international market or focus instead on proactively building and using national and regional resources?

For small and/or developing countries, the balance between national and regional capacity is also an important component of the restructuring strategy. Models of national/regional arrangements that take advantage of limited resources are only now beginning to emerge. This further complicates the matter of national investment in governance, because regional institutions must be supported from national funds, usually at the expense of the national institutions. Thus it can be expected that in addition to collaboration between the levels, there will also be tensions.

Is it then worth it?

At this point governors are justified perhaps in asking whether all this effort is really worth it, if a certain amount of risk is unavoidable. The answer should be a definitive

The most important implication is the need to work with other stakeholders and to share learning and power.

‘yes’. Fisheries and aquaculture systems are intricate and will only become more so. The benefits of interactive governance approaches are many. Recent analyses, including trends and experiences in governance of other sectors, suggest that an interactive governance approach is the most likely to provide the desired results, given the nature of fishery systems.

Finally, some things are certain: traditional means of governing fisheries and aquaculture have not shown much success and unless new approaches with greater promise are pursued, there will be widespread failure to realise the benefits from and achieve sustainability of a large proportion of the world's fisheries. So the ways forward of interactive governance are worth the risk.

An interactive governance approach is the most likely to provide the desired results, given the nature of fishery systems.

An invitation to join this 'work in progress'

The authors of this short guide and the members of the FISHGOVFOOD network see this as a 'work in progress'. A small beginning has been made but a lot more remains to be done. The size and the nature of the task is such that only the diversity of practitioners, their experience and their willingness to try to strengthen their governance systems, using the interactive governance perspective, will help what has been started to grow and evolve. You are invited to share your thoughts and learning from practice with others. To do so, please visit the network website: www.fishgovnet.org and help progress interactive governance of fisheries.

The diversity of practitioners, their experience and their willingness to try to strengthen their governance systems, will help what has been started to grow and evolve.





Appendix 1

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