



# Transforming the governance of small-scale fisheries

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## Abstract

Despite their contribution to employment, food security, poverty eradication, and community well-being, small-scale fisheries often find themselves in a disadvantageous position globally relative to large-scale fisheries and other industries competing for marine space, resources, and government attention. By and large, small-scale fisheries are marginalized in every sense of the word: culturally, socially, economically, geographically, legally, and politically. Their unfavorable status is frequently perceived to be both a cause and effect of overfishing, unsustainable fishing practices, and governance failure; thus, their potential to modernize while participating in and delivering on sustainable development goals is less than optimal. Given that the majority of the world's fisheries are small-scale, it is imperative that major changes take place in the conditions that determine the predicament of small-scale fisheries. For these reasons, in 2014, FAO member states endorsed the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines), with the aim of encouraging states and civil society organizations to take steps to bring about the changes needed to improve the sustainability and viability of small-scale fisheries. The SSF Guidelines call for broad and complex governance interventions; however, as much as they can help create transformation within small-scale fisheries, governance systems themselves must also be transformed before real change can take place. Based on the analysis of 34 case studies of small-scale fisheries' governance around the world, our synthesis reveals that small-scale fisheries' governance is indeed undergoing different types of transformation and can take place in all governing modes. Further, these transformations occur at the operational, institutional, and the meta-levels of governance, which, from the perspective of the SSF Guidelines, is encouraging.

**Keywords** Small-scale fisheries · SSF guidelines · Interactive governance · Social transformation · Implementation · Co-governance · Partnership

“The rate of change is often of no less importance than the direction of the change itself; but while the latter frequently does not depend upon our volition, it is the rate at which we allow change to take place which well may depend upon us.”

Karl Polanyi: *The Great Transformation*: 1944/1957. Boston: Beacon Press, pp. 36-37.

## Introduction

Prior to the adoption of the Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (SSF Guidelines) by FAO member states in June 2014 (FAO 2015), small-scale fisheries had been mostly ignored by governments. This marginal status contrasts with the fact that the majority of the world's fisheries are small-scale. The SSF Guidelines offer a rare opportunity to form the high-level commitments that are required for states and other actors to take on in order to promote the sustainability of small-scale fisheries. The SSF Guidelines call upon states and civil society organizations to take concrete action to bring small-scale fishers and fish workers out of the impoverished and marginalized situation they often find themselves in on a global scale.

In FAO's SOFIA reports (State of the World's Fisheries and Aquaculture) (<http://www.fao.org/3/a-i5555e.pdf>), the importance of small-scale fisheries is often highlighted, in

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terms of their provision of food, income, and employment to millions of people. According to the 2010 report, about 120 million people work full-time or part-time in fisheries-related jobs, of which more than 90% are small-scale. Other estimates show that small-scale fisheries contribute about one fourth to the world's total (Pauly and Zeller 2016) and about 90–95% of these catches are for local human consumption (World Bank 2012).

Achieving both sustainability and viability in small-scale fisheries is an ambitious goal. As noted in the 2016 SOFIA report, “declining fisheries resources; degraded aquatic habitats; other more-powerful sectors outcompeting small-scale fishing communities for access to land and water; unequal power relations; lack of access to services; and limited participation in decision-making, often leading to unfavorable policies and practices within and beyond the sector” (FAO 2016, XX). This report further observes that inadequate governance structures often fail to provide the necessary support. Thus, despite their actual and potential contribution, the intractable—or “wicked”—problems facing small-scale fisheries must be dealt with for the sake of small-scale fishers, fish workers and their communities, as well as for society at large which benefits from their services. This, we argue, is essentially a governability challenge (Bavinck et al. 2013), meaning that the problem may easily get out of hand and be beyond the existing quality and capacity of governing institutions.

The SSF Guidelines call for multiple interventions to improve the working conditions of small-scale fisheries. Indeed, they also emphasize the need for the transformation of governance systems, given that they do not always work in the interest of small-scale fisheries. The question is how one advances from the situation described in 2016 SOFIA report to the future envisaged in the SSF Guidelines, especially when the governance structures are ineffective. How would such reforms come about when “unequal power relations” and “limited participation in decision-making” constitute existing governance structures to begin with? If transformation is indeed required, questions remain whether it should be incremental or it should happen drastically, whether it should be marginal or fundamental change, or whether it should be systemic or partial.

We assume that the transformation, be it direction, degree, or rate, depends on the context at the outset. Sometimes, marginal change would suffice to solve the problem, while in other instances, like when crisis looms, “transformative opportunity” (Unger 2004: 424–425) may allow radical reform. Notably, any change, whether gradual or abrupt, marginal or fundamental, does not take place in a power vacuum. Institutional reform is often politically contested and resisted, resulting in minor alteration, even if a total overhaul (transformation) would have been justified. In other instances, the current structure is entrenched to a degree that any change may be difficult or unimaginable.

Small-scale fisheries’ governing actors should be prepared for all of the above as they proceed with the implementation of the SSF Guidelines. Because transformation can differ from one fishery to the next, learning about possible avenues for these transformations to take place is imperative. Through a systematic examination of 34 case studies from around the world, published as an edited volume titled “Interactive governance for small-scale fisheries: global reflections” (Jentoft and Chuenpagdee 2015), we employ interactive governance theory (Kooiman 2003; Kooiman et al. 2005; Bavinck et al. 2013) in ordering the different transformations found in the case studies and in exploring the governing mode that they are situated in and gravitating towards. By so doing, the paper provides insights into how to analyze changes in the governance system, and how to facilitate transformation towards sustainable and viable small-scale fisheries, as promoted in the SSF Guidelines.

## Conceptualizing governance transformation

Although the governance concept has ancient roots, current definitions reflect recent societal demands and the consequent change of governing practices. This change can be identified as a transformative move from a top-down, hierarchical approach with government at the steering wheel, towards a more cooperative, network and partnership-based system, where civil society takes on some of the governing functions (Rhodes 1996; Van Leeuwen and Van Tatenhove 2010). Thus, Kjær (2004:7) concludes “governance refers to something broader than government...” This idea of modern governance is indicative of the complexity of the challenges facing governments today, like those expressed in the 2015 UN Sustainable Development Goals (SDGs) (<http://www.un.org/sustainabledevelopment/sustainable-development-goals/>). As Delmas and Young (2009:3) observe, “We live in an era in which the demand for governance arising from human-environment interactions or, more broadly, the quest for sustainable development, is growing, while confidence in the capacity of government – the conventional mechanism for handling such matters – to address problems of governance is waning.” Thus, SDG 17, “Revitalize the global partnership for sustainable development,” is expressing the need for building governance partnerships, involving governments, civil society and the private sector in order to achieve the SDGs.

However, a move from government to governance raises a range of challenges, for instance related to accountability, transparency, legitimacy, participation and power. Also, there are issues pertaining to the division of labor as to who within the governing system are better equipped to do what. There are certainly some functions that only the state government can handle, or can perform better than other actors (Peters and Pierre 2016); thus, the state remains a powerful actor in the

new governance (Bell and Hindmoor 2009). The SSF Guidelines have good reasons for addressing the state the way they do but they also explicitly recognize the role that other actors, like civil society organizations, local communities and the research institutions, may play in the implementation of the Guidelines.

The move from government to governance involves a qualitative shift in the way the governing system is structured and operates. We define this movement as a transformative shift with normative overtones, i.e., it is believed to improve the effectiveness and quality of governing. It is, however, also a subject matter for empirical research, for instance, pertaining to “transformative opportunities”: How, and under which condition, does such a move occur? What is gained and lost, and to whom? These are pertinent questions, which inspired the analysis of the published case studies of fisheries’ governance systems and practices. Is the move from government to governance in small-scale fisheries taking place in similar manners around the world? If so, why, how and with what consequences from a governability perspective?

As originally theorized by Kooiman (2003), and employed for our research, governing is perceived as taking place within three ideal “modes”: hierarchical governance, co-governance, and self-governance. In the first instance, governing is top-down and is usually, but not necessarily, conducted from the apex of government. In the second, co-governance occurs from within a partnership between government, civil society, and industry stakeholders. In the latter instance, governing is performed without interference from an external authority, and is left to the stakeholders themselves at a community or group level. In reality, and as revealed in our analysis, governance modes are neither clear-cut nor stable (Pierson 2004) but take place in hybrid forms that evolve over time as an adaptation to changing political, economic, or ecological circumstances (Jay 2013; Ménard 2004; Jentoft 2007). A governing system must fit the challenge as presented by the system-to-be governed. Therefore, we should “cast our net wide in thinking about new forms of governance” (Delmas and Young 2009: 6). However, as ideal types, the three “modes” are meant to inspire research questions. Do actual governance systems and practices conform or deviate with one or another mode? If so, why and with what outcomes? Over time, does one governance mode transform into another, and for which reasons?

Governance, as explained by Kooiman (2003), also occurs at meta-, second- and first-orders. At the meta-order, fundamental governing elements like images, values, and principles are established—explicitly or implicitly—through deliberation or otherwise. Second-order governance is about how to design institutions in ways that correspond with the meta-order elements, which would then enable smooth functioning of the governing actors in their routine, problem-solving work at the first-order. What one means by “good governance” in a

particular circumstance with respect to small-scale fisheries needs to be examined through all three orders. Since orders and modes of governance are interrelated, an understanding of the three orders under each mode is thus called for. In other words, as illustrated in Table 1, one would explore the meta-order values, images, and principles, the institutional design (second order), and the governing routines and practices (first order) for hierarchical, co-, and self-governance. The fact that the values, images, and principles are often not expressed in a formal sense does not imply that they are not there. In many instances, meta-order images, values, and principles linger tacitly in the first- and second-order (Song et al. 2013). A key subject for further examination, which our analysis has explored, is to what extent moving between the three governing orders, such as in a process of learning, is triggering the change of modes.

When implementing the SSF Guidelines’ principles, one would expect convergence towards the co-governance mode through an engagement of small-scale fishers and fishing communities, who are legitimate stakeholders in decision-making and management, as implied in paragraph 5.15:

States should facilitate, train and support small-scale fishing communities to participate in and take responsibility for, taking into consideration their legitimate tenure rights and systems, the management of the resources on which they depend for their well-being and that are traditionally used for their livelihoods. Accordingly, States should involve small-scale fishing communities – with special attention to equitable participation of women, vulnerable and marginalized groups – in the design, planning and, as appropriate, implementation of management measures, including protected areas, affecting their livelihood options. Participatory management systems, such as co-management, should be promoted in accordance with national law.

We argue here that without a consideration of the three orders, participatory governance remains a thorny undertaking. A move to co-governance, for instance, needs support at the meta-order like a democratic ethos, enabling legislation at the second order, and active small-scale fisheries’ stakeholders at the first order.

As “ideal types,” the governing orders and modes combined serve as heuristics for empirical research, guiding questions such as: What explains the disparity between empirical modes/orders and theoretical ones? What difference does this gap make for the governability of small-scale fisheries in concrete cases? If a particular mode works well in one setting, why not in another? Are different first-order performances related to different institutional designs at the second order, or different images, norms, and principles at the meta-order? By applying the framework, as depicted in Table 1, on concrete case studies, we derive a foundation for hypothesizing

**Table 1** Conditions for transformation at different orders and modes of governance

Governing mode and order	Hierarchical governance	Co-governance	Self-governance
First-order	Government is responsible for ensuring that human resources, infrastructure, and procedures are in place to deal effectively and timely with issues and challenges as described in SSF Guidelines	Government works in collaboration with small-scale fisheries organizations and shares responsibility (including costs) of developing and implementing mechanisms to deal with urgent problems in small-scale fisheries as described in the SSF Guidelines	Small-scale fisheries' organizations are responsible for reporting and monitoring catches, and have mechanisms to deal with conflicts and problems that arise, as anticipated in the SSF Guidelines
Second-order	Government is capable of analyzing why certain rules and regulations are more effective than others and formulating appropriate policies and management strategies in line with the SSF Guidelines	Mechanisms are in place for government and small-scale fisheries' organizations to discuss issues of non-compliance, conflicts, etc., and to work collaboratively in formulating appropriate incentive mechanisms and institutions as envisaged in the SSF Guidelines	Small-scale fisheries' organizations have their own legitimate process to create and implement rules and norms that align with the broader established goals and principles as prescribed in the SSF Guidelines, policies by the government or some other local and/or central authority
Meta-order	Government acknowledges the diversity of values and images in small-scale fisheries, and is able to align its policies and strategies in accord with the governance principles in the SSF Guidelines in support of these values and images	Mechanisms are in place to enable government and small-scale fisheries' organization to discuss differences in values and images and develop a common vision and goals for small-scale fisheries' governance that align with the principles promoted in the SSF Guidelines	Small-scale fisheries' organizations have their own process to address diverse values and images and work towards developing a common vision and goals that align with the principles promoted in the SSF Guidelines

about the chances of successful transformation of governance in accordance with the principles and practical recommendations laid out in the SSF Guidelines.

### Analysis of transformation in different governing modes

Drawing from 34 case studies that have already been published in Jentoft and Chuenpagdee (2015), our paper analyzes different transformations of the governing mode occurring in these cases, which cover small-scale fisheries in developed (11 cases) and developing countries (23 cases). Specifically, we examine how the governing system interacts with the social and the natural systems that it aims to govern, following Table 1.

Modes obviously have a history in each specific context. They may have evolved gradually through a policy processes internal or external to the fisheries' industry. They may have resulted from a deliberate collective choice made at a specific time in response to a concrete problem, like a resource crisis. Whatever their origin, governing modes have researchable consequences, which, from a governability perspective, could be positive or negative (i.e., dysfunctional or in violation of good principles). The analysis of transformation in all three governing modes explores the interactions (communication, deliberation, negotiation, directive, etc.) between the governing system on the one hand and the system-to-be-governed on the other. Interactions between these two systems

may take place in a formal or informal setting, and may occur more or less spontaneously. They may also be variable, frequent, and intense. Yet, as Kooiman (2003) argues, they are the linkages between societal attributes and governance qualities.

### Building capacity for transformation in hierarchical governance

As previously noted, the SSF Guidelines primarily address states as their main audience. Sentences starting with "States should..." appear 75 times in the document. Thus, it is fair to conclude that the member states that negotiated and then endorsed the SSG Guidelines share a belief in the responsibilities and capacities of central government. Nevertheless, like interactive governance, the SSF Guidelines do not assert that the state alone should be involved. In addition to emphasizing the engagement of civil society organizations and fisheries' stakeholders in the implementation of the SSF Guidelines, the document gives prominence to the building of partnerships. However, the often complex, multi-level, and fragmented nature of the governing system poses difficulties for the coordination, integration, and formulation of a holistic and inclusive policy agenda. Asymmetrical power relations also pose complications for meaningful interactions.

Misuse of state power often leads to governance failure. Hadjimichael (2015) illustrates how fisheries' governance in Cyprus faces several challenges such as overfishing,

economic viability, conflicts over access to space and resource, as well as power struggles not only between different gear like trawls, long lines, purse seines, and the recreational sector, but also between fishers and the authorities. Complex and dysfunctional interactions characterize these relationships, which are made worse by the state's strategy of "divide and conquer," and the lack of effort to genuinely engage all sectors in public consultation. Small-scale fishers are generally left disempowered and eventually become dependent on the authorities. She argues that, in order to enhance governability, governing capacity needs to be built, along with new institutions and improved policies that enable the meaningful participation of small-scale fishers.

Poor performance of the governing system under the hierarchical mode is also observed in mainland Ecuador due mainly to mismatches in legal frameworks, ill-defined social boundaries, and the use of inappropriate mechanisms to mobilize information (Barragán-Paladines 2015). Nevertheless, in its current form, national laws and legal instruments are implemented, with management plans in place. She argues that, rather than aiming to transform into a co-governance mode, as is the case with the Galapagos, it might be as important to strengthen the commitment of the national authorities. Thus, government commitment would encourage national agencies to be more proactive in addressing the fisheries' problems, taking into consideration that small-scale fishers and communities should be involved in crafting solutions.

In Newfoundland and Labrador, Canada, the hierarchical governance mode involves multiple agencies at various levels, including local, provincial, federal, and supranational, hence posing challenges in ensuring the coordination of policies, rules, and regulations (Song and Chuenpagdee 2015). Fragmentation and mismatches are common, and the majority of existing fisheries' policies, such as fleet rationalization, capacity reduction, and international trades, seem to be skewed in favor of large-scale, industrialized fisheries. For transformation to happen, the authors argue that governments need to make use of local capacity through fishers' associations and community-based organizations to create an inclusive platform for conversation in pursuit of setting an inclusive vision for governance.

Conditions and capacity that need to exist for successful transformation under the hierarchical mode are illustrated in the case of the Alaskan fisheries (Soliman 2015). While the use of market-based instruments like individual transferable quotas (ITQs) to manage fisheries is controversial, they can be designed to support small-scale fisheries, as done by the North Pacific Management Council in the form of "community quota entities" (CQEs). In principle, the program is tailored to the local context, as it aims to make quotas available for lease to communities. Financial and logistical barriers exist, however, limiting the purchase of quota shares under this program. As one of the few working CQEs, the Old Harbor program

contains features that promote small-scale fisheries' sustainability and enhance governability through encouraging investments and development of affirmative action policies and supportive financing structures.

Prescott et al. (2015) offer another consideration for governance transformation using the example of the small-scale purse seine fishery in Rote Island in eastern Indonesia. The governing system in this case is hierarchical but operates at the local level (i.e., district) amidst informal management arrangements, including many local and customary laws. They suggest that while co-governance may offer an important opportunity to strengthen democracy and lead to local empowerment, what is ultimately required is strong support from government in the form of legitimate legislation that recognizes the need to safeguard fisheries' boundaries and maintain the functionality of district level governance. The role of government in this case would include the provision of reliable funding and human resources and the replacement of harmful subsidies with more productive ones to incentivize actions such as the development of mechanisms to improve governing interactions and empower small-scale fishers to engage in the governance process.

Successful transformation in governance depends not only on the present situation but also on past events. Ferrer (2015) reveals the importance of "step zero" in the case study of Taklong Island National Marine Reserve in the Philippines, which was considered non-functional due to the lack of representativeness and involvement of small-scale fisheries in the initial planning process. Further, the Department of Environment and Natural Resources was not able to create good quality interactions between key stakeholders, leading to the inadequate exchange of information.

The negative consequence of the lack of fishers' participation in decision-making is also observed in the case of small-scale octopus fisheries in Portugal. Pita et al. (2015) describe poor communication, weak collaboration, and limited understanding about the resource as underlying causes for low performance in governance, characterized by inappropriate monitoring and assessment and a lack of intervention by authorities in fisheries' management. With the new Common Fisheries Policy of the European Union, moving towards co-governance may be a real possibility. These authors argue that such a reform would require trust building between fishers and the authorities.

Transformation in the structure and function of the governing system is also necessary to deal with issues of scale mismatch and institutional fit. The greater the mismatch, the more fundamental the change (transformation) needs to be in order to attain the fit. This problem can be as fundamental as the lack of a clear definition about what small-scale fisheries are, which is a common situation in many countries around the world. This is partly why the SSF Guidelines only provide a broad statement about the characteristics of small-scale

fisheries, leaving that task of determining what they are at the discretion of each country. De Vos and Kraan (2015) argue that the lack of a precise definition is highly problematic in the Netherlands, since it reflects a poor understanding of small-scale fisheries, which may then disadvantage small-scale fishers when it comes to decision-making about fisheries. As previously discussed, the difficulty in the definition is due to the diversity, complexity, dynamics, and scale of operation in small-scale fisheries. A “flexible” definition may thus be more appropriate than a fixed one. The Dutch government has been working on rectifying the situation by working with a group of Wadden Sea fishers in an experimental “integrated fishery” that allows fishers to obtain a group license as opposed to individual ones, so that a variety of gears and techniques can be used. According to De Vos and Kraan (2015), in addition to reducing costs and sustaining higher yield, the program will also help improve cooperation between fishers and government officials.

Under the hierarchical governance mode, government needs to be sensitive to the boundary issues associated with the natural and social systems involved in fisheries, which may not align with those of the institutions that are designed to govern them. Examples from Sri Lanka (Scholtens 2015) and Colombia (Randin 2015) show that small-scale fishers are subjected to external pressures beyond their control. In the case of Sri Lanka, conflicts arise between Indian trawlers that transgress national boundaries and occupy the traditional in-shore fishing space of small-scale fishers. According to the SSF Guidelines, it is in the purview of the governments of both countries to use whatever means available to them to address these rights and access issues affecting small-scale fisheries. However, governments have other priorities and large-scale fisheries usually have the backing of the government. Thus, unless small-scale fisheries are organized and able to mobilize support from other stakeholders, including environmental organizations or human rights watch groups, their concerns would continue to be ignored.

South Africa illustrates another kind of mismatch with the implementation of marine protected areas (MPAs) adjacent to small-scale fishing communities. Sowman (2015) notes a “power mismatch” between people who depend on fisheries’ resources for livelihoods and those who promote conservation. Impediments to governance also include different values and worldviews and the absence of shared principles and a common vision, which leads to contested interpretations of policy and law and a lack of consensus about management approaches and resolutions to problems. The author argues that the persistence of the state-centric and natural science-based approach to governance adopted by fisheries’ management and conservation authorities is one of the main obstacles for governability. Unless these mismatches and differences are recognized and understood, governance transformation remains a faraway goal.

Finally, small-scale fisheries are exposed to external threats that have social, political, and environmental externalities, which affect their livelihoods and viability. In Cochin backwater in Kerala, India, these threats include urbanization, tourism, and industrial development (Sathyapalan and George 2015). With no skill set to engage in employment in other sectors or financial assets, small-scale fishers have weak adaptive capacity to cope with this new situation. There is also no platform for fishers or other stakeholders, such as medium and large industries, the port authority, tourism operators, and inland water navigation sectors to negotiate issues pertaining to backwaters use and conservation. Consequently, the health of the ecosystem, as well as the fisheries resource system, has deteriorated under hierarchical governance. Sathyapalan and George (2015) suggest that governability in this case is low because of the disconnect between the Fisheries Department and local level organizations representing small-scale fisheries like the Panchayats, despite the decentralization that is present. According to these authors, radical institutional and organizational changes, along with significant political will, need to occur in order to empower the Panchayats to play an active role in the management of the backwaters.

### Reforming institutions in co-governance

Many case studies that we analyze speak to the importance of institutional transformation in order for the co-governance mode to function. In the Belize lobster fishery, Monnereau and McConney (2015) reveal that, with support and commitment from the state, fishing cooperatives are able to play a pivotal role in fisheries governance, serving as intermediaries between small-scale fishers and the government. This has led to the government granting exclusive rights over the export of lobster and all other seafood to the fishing cooperatives, which are owned and operated by fishers, with benefits distributed among members. Further, the state puts other protective measures to secure profits for the fishers such as rejecting requests from foreign firms or large commercial companies to harvest, process, or export fish. In addition to the cooperatives, national and international non-governmental organizations (NGOs) are also influential in fisheries’ governance, especially through the establishment of MPAs. Monnereau and McConney (2015) show that moving from hierarchical to co-governance would likely face several institutional hurdles, like in the case of Jamaica where efforts to manage the lobster fishery have not been fruitful. Another good example of the need for specific institutional design for successful co-governance is in Malawi, as pointed out by Hara et al. (2015). In both Lake Malombe and Lake Malawi, problems with overfishing are expected to continue unless roles and authorities to limit access, regulate outputs, and determine fishing tenure are properly devolved to the beach village committee, the co-governing body of the fisheries in these lakes.

However, having the right institutions alone is not a sufficient condition for transformation. According to Castrejón and Defeo (2015), the social attributes of fishers' organizations, the quality of the interactions between government and other actors, and the institutional adaptability to external drivers of change are key to success. In researching seven small-scale shellfish fisheries in Latin America, they found that when facing crises small-scale fishers were able to come together and work collaboratively to re-organize and adjust their harvesting practices and trading strategies based on their experiences. These new arrangements were enabled by the partnership between cooperatives, government agencies, research communities, and NGOs. The ability to adapt to changing conditions is also emphasized in the sea urchin fishery of Barbados and St. Lucia (Cox and McConney 2015). Factors and conditions favoring successful co-governance include having a well-defined resource system, clear property rights, commitment to support a long-term institutional building process, and openness of participants to share and draw upon a plurality of knowledge systems. They added that fisheries' stakeholders need room to explore options and test ideas, so that learning can be internalized in order for them to become more creative and innovative in their co-governance efforts.

Transformation towards co-governance is also happening in Senegal. The added challenge in their situation is the influence of international actors who often bring their own principles and solutions to the problems at hand without understanding the local contexts. Thus, Hurley and Manel (2015) argue for better coordination between actors and across scales, emphasizing the importance of incorporating fishers' values and perspectives as well as local knowledge in the participatory process, whether for research or decision-making. Other examples of threats from outside actors in a co-governance system can be found in the small-scale kelp harvesting in the French Iroise Sea and in the Canary Islands, Spain. In both cases, new actors came with the introduction of MPAs. According to Frangoudes and Garineaud (2015), the kelp fishery in the Iroise Sea has a long history of co-governance between kelp harvesters through fishers' organizations and fisheries' authorities. The processing industry also played a key governing role as they collaborated with kelp harvesters to control production in order to prevent over-exploitation. Different governance arrangements took place with the introduction of quotas and other rules to regulate kelp harvesting and the creation of the National Marine Park of Iroise Sea. The park, in this case, is granted a veto right if they consider economic development to have negative impacts on the ecosystem.

The new actor in the case of the Canary Islands is the recreational fishing sector, which is higher in number and bigger in economic power compared with small-scale fishers, and which is demanding inclusion in the governing process (Pascual-Fernández et al. 2015). They are also not alone in

making the demand; other actors such as surfers, scuba divers, and tourism operators all want their needs to be considered. Since the marine reserves in Canary Islands are meant to support small-scale fisheries instead of excluding them, thus aligning conservation with sustainability, small-scale fishers have some advantages in the governance process. While involving recreational fishers and other new actors in the discussion about MPAs may help improve governability, some capacity building is required on the part of the new actor. In addition, some adjustments need to be made to the existing institutional arrangement and there must be new learning among the involved actors about the different expectations that each stakeholder group might have for the MPAs.

While co-governance seems like a preferred mode towards which many countries are gravitating, additional challenges need to be recognized in the context of post-war and civil conflict. Khan and Sei (2015) capture this in their investigation of the effort in Sierra Leone to establish co-management systems, along with the introduction of territorial user rights and MPAs, which were instituted to promote stewardship and participatory decision-making. The decade of civil unrest in the 1990s weakened local institutional capacity, however, making it difficult for fishers to engage in monitoring and other management activities. With global change and other ongoing stresses, more attention is required on the issue of institutional fit, considering the nested or multi-level governance system associated with fisheries in that country.

Finally, co-governance can result from an eroding self-governance system, as argued by Finkbeiner et al. (2015) in their investigation of the situations in Baja California, Mexico, and Hawaiian Islands. The weakening of the communal arrangements and fishing cooperatives in the former case, and the annulment of the marine tenure system through statehood in the latter, coupled with increasing state intervention, demographic shifts, technological change, and globalization, provided an impetus for instituting co-management as an alternative governing system. Despite the strong constitutional backing in both cases, the lack of capacity at the state and community levels has limited the advancement of co-governance in Hawai'i. Greater success is found in the Mexican case, which has had a longer experience with the process, although power imbalances continue to impede progress.

### Understanding the roles and responsibilities of self-governance actors

Self-governance is perhaps the least-described system in our study, despite its long tradition and the recognition that it has been essential in maintaining fishers' rights, cultural integrity, and autonomy in governance. Several normative statements are often made about the value of a "bottom-up" approach to governance, where communities are empowered to govern their own activities, asserting that this approach should lead

to stewardship and sustainable use of natural resources, as well as fair and just use arrangements, especially in the absence of other strong institutions (White and Vogt 2000). Others argue that self-governed initiatives may not be as efficient to promote biodiversity protection due to internal conflicts, increasing external pressures, including globalized markets, and demographic change (Roe et al. 2000; Berkes et al. 2006). In addition, issues of scale may limit the governing ability of local communities and, if instituted, would build relationships to other communities in the vicinity. A better understanding of the factors that limit and support self-governance and what self-governing actors need to do to deal with changing conditions is thus necessary.

Some forms of self-governance can be found when small-scale fisheries organize themselves to manage certain aspects of their fisheries, abiding as they do within existing regulatory frameworks. While local empowerment and stakeholder engagement in governance are considered good traits for improving overall governability, they are not always well received, especially when they challenge the authorities of the state and affect other resource users. This was the case with San Felipe community in Yucatan, Mexico, where local fishers initiated a MPA in the fishing ground in front of their community as a preventive measure against over-exploitation. As described by Salas et al. (2015), the community faced resistance from both the state government and neighboring fishing communities, arguing that they had no legal rights to restrict the access of other fishers who also fished in the area. It took several years of relationship building and collaboration, along with support from researchers, before the importance of the protected area for the future of the fisheries became clear to everyone. A lesson on self-governance in this case highlighted the need to communicate and to develop a common vision and shared goals.

There are a few well-known fisheries' self-governance regimes around the world. The South Pacific Islands, for instance, are recognized for their system of customary rights known as *qoliqoli* (Cooke and Moce 1995). Another example is from Lake Victoria prior to the colonial period, when clan elders had exclusive rights to make decision about when fishing should take place (Onyango 2004). According to Onyango (2015), this tribal governance system aligns with the self-governance mode; even though it was hierarchical, decision-making power and responsibilities rested upon the tribe leaders. The self-governance system was abolished after the colonial government stepped in to manage fisheries' resources. Today a co-management system operates in Lake Victoria through the establishment and involvement of beach management units at the local level and with the Lake Victoria Fisheries Organization operating as a tripartite interstate regional level governance body, representing Tanzania, Kenya, and Uganda in the joint management of Lake Victoria fisheries.

Nearby in Chwaka Bay, Zanzibar, the self-governance process is rife with conflicts between villages due to the diversity of values and opposing interests. Lindström and de la Torre-Castro (2015) consider the system "unsustainable," arguing for the need to move from self-governance to a form of co-governance in which the state plays a role. The importance of an in-depth knowledge of the small-scale fisheries system, particularly the cultural-cognitive and other normative aspects underpinning de facto management actions, as well as how they may limit opportunities for conservation and sustainability, is emphasized. A lesson for self-governance from this case study is that it does not necessarily lead to achieving governance goals and community participation in state-led rules and decision-making is still necessary.

Success stories in self-governance often emerge in the context of conservation efforts. This was the case in Thailand, according to Jones et al. (2015), who document how decentralization took place in 1999 to encourage the participation of communities in the administration of local affairs, as well as the management of natural resources. Their investigation in six coastal villages along the Andaman coast reveals that communities with a strong capacity for self-governance were able to garner support from their members in addressing problems of fisheries decline and resource degradation. Building on trust and cooperation within the community, villagers respected rules and were willing to take part in enforcement, mainly to prohibit outsiders from fishing in restricted areas or conservation zones. Even without formal enforcement capacity, social sanction was applied, along with other penalties like gear confiscation, which were backed by village leaders.

However, the movement from the state-controlled centralized system to participatory governance and self-control can have detrimental effects to the viability of small-scale fisheries. Høst (2015) illustrates this in his analysis of the Danish demersal fisheries after the introduction of private property rights. Here, market-based fisheries' management has altered the social and material dynamics of fleets such that small-scale fishers are no longer able to properly participate in the fisheries. Essentially, they lack the means and capacity to cope with increasing fishing costs and the new regulatory demands associated with quota management, which predominantly favors large-scale, high volume fisheries. Despite the rules and principles to prevent quota concentration and absentee ownership, the vessel quota system, which officially began in 2007, led to quotas being shared among few holders and changing ownership structure with quota owners situating away from the fishing areas. Recent publications (cf. for example Pinkerton 2017; Winder 2018) report similar developments in other parts of the world. Small-scale fisheries often lose out when markets are self-governed in the absence of external interventions to correct for market failures.



## Dealing with transformation in the mixed mode

Several case studies describe governing modes that do not entirely match with the ideal types, but to certain degrees deviate from these theoretical constructs. Such deviations tend to occur for contextual reasons. However, that does not mean that current governing systems are well adapted to the existing problem structure of a particular system-to-be governed. This is the case, for instance, with the Pacific Islands, as demonstrated by Cohen et al. (2015). Their analysis shows that neither the hierarchical governance nor the self-governance system through customary institutions is effective at dealing with contemporary resource use contexts and meeting sustainability goals. Drawing from their experience in Solomon Islands, they argue for a hybridized system, where interactions between a “community-based, co-management” system and customary institutions (or self-governance), as well as with hierarchical governance, are promoted. Such a system also benefits from engaging with NGOs and the scientific community in partnership arrangements that help build capacity and bolster conservation. For fisheries contexts that are undergoing rapid growth and intensification of resource exploitation, these authors conclude, a mixed mode of governance is particularly useful, fostered by mechanisms to promote cross-scale networks and multi-level interactions.

Another illustration of the need for interventions and new institutions is found in the Lake Winnipeg fishery in Canada. In the late 1960s, US-based traders had full control of the markets and thus the socio-economic condition of fishers, keeping them under severe debt and poverty (Johnson and Pálsson 2015). Through government interventions, a Freshwater Fish Marketing Corporation (FFMC) was instituted to nationalize the purchase of fish, forcing private traders out of the industry and eventually leading to a system of limited ITQs. In this case, the reversal is from a self-governance system that favors the private sector to another market-based system controlled by a national institution (a state-led initiative), which met with some dissatisfaction and perceptions of illegitimacy. While fishers acknowledge the role of the two institutions (FFMC and ITQs) in improving their livelihood conditions, they have issues with the inequalities of the ITQ system and the incapability of the governing system to encourage their engagement. The new Lake Winnipeg Co-Management Board is established to help improve interactions between fishers and governments, thus transforming the governance of Lake Winnipeg from a pure hierarchical governing system to an “in-between” mode of governance.

Tonle Sap in Cambodia is another lake system that underwent a “deep” reform involving a “top-down” decree that abolished the long tradition of the auctioned fishing lot system, which had given exclusive rights to industry for commercial exploitation for more than 100 years. The fisheries’ governance system in Cambodia is one of mixed modes,

characterized by a “weak” co-management arrangement called Community Fisheries, which is made up of locally elected management bodies that execute a fishery management plan approved by the state (Jones and Sok 2015). The reform has resulted in an introduction of new actors and a change in power relations that affects the system’s governability. For instance, the added conservation and social safety net mandates demand higher capacity and coordination from the governing bodies (both at the state and community levels), which are structurally not feasible. Some positive signs have been observed with the creation of new community fisheries, with enhanced roles in enforcement and management, along with increased participation from non-state actors, including environmental organizations, civil society organizations, and donors.

The mixed mode of governance can be attributed to the long history of small-scale fisheries’ governance, but is a mode with a highly dynamic history. Jentoft and Johnsen (2015), for instance, documented the series of institutional changes in Norway, starting with the existence of co-management since 1890s, and later with the Norwegian Fishers’ Association established in 1928 playing the key governance role in cooperation with the government. The passing of the “Raw Fish Act” 10 years later gave control of dockside sales and price setting to the fishers’ associations. Another major change occurred in 1990 when an individual vessel quota was introduced, and with it the change of the state’s role from reactive (amiable) to proactive (confrontational), with the state now having to set the quota and determine the allocation rules. The latest change came in 2014, with the re-introduction of the open access system for small-scale fisheries (using vessels less than 11 m), after years of complaints about the effects of quota allocation on their livelihoods. Nonetheless, for the most, part fishers have been able to adapt and support measures and rules constituted by the state, given that they have participated in their establishment through their associations and thus have sufficient trust in the institutions, as well as adaptive capacity to cope with change.

In Japan, the traditional, co- and self-governance system by fishing cooperative associations (FCAs) is giving ways to consolidation and merger, sometimes to the prefectural FCA level (Delaney 2015). The claim is that this consolidation, especially in the past 20 years, has made better administrative and financial sense, in addition to being more efficient in delivering services to members than the port-based FCAs. In order to govern FCAs operating at all levels (local, prefectural, and national), a hierarchical governing was instituted and has been responsible for pushing FCA consolidation to one per prefecture, as well as accommodating the change in demography due to the aging population of the fisheries’ sector. The FCA reform has resulted in the transfer of management responsibilities from local to regional organizations, leading to a “dis-embedding” effect in social relations.

An integrated management approach has been employed in some of the case studies to deal with the mixed mode of governance and changes in fisheries. Gerhardinger et al. (2015) describe the actions in Brazil associated with decentralized decision-making, participatory mechanisms, and an introduction of new instruments such as Environmental Protected Areas (EPAs). Because EPAs are often extensive, including both public and private lands, and tend to cross multiple jurisdictions, EPA governance requires different interactions and approaches including partnership between government and local actors and devolution of decision-making power and autonomy to the bottom-up, multi-stakeholder management council. The study of the EPA in Santa Catarina, Southern Brazil, by these authors reveals that, despite attempts for innovation in the governing structure, functions, and processes, several challenges remain, begging for some reconsideration about appropriate scale and capacity of the governing bodies and the local communities alike in their roles and involvement in governance.

Finally, the recognized need to integrate fish as part of food systems to address food security and poverty issues is another reason why governance transformation is required. Isaacs (2015) illustrates this using the case of *snoek* fishery in South Africa, which, in line with the broader transformation, has seen changes in fishing rights of small-scale fisheries. South Africa is one of a few countries in the world that legally recognizes small-scale fisheries and has put in place small-scale fisheries' policy aiming to improve overall benefits to small-scale fishing communities. Yet, creating space for new entrants and integrating them into the system is a major challenge, and without necessary infrastructure, capital and business skills, these new entrants end up losing out to industrial companies, who are able to concentrate fishing rights in a few hands. Isaacs (2015) concludes that the problem is not only about food security but "food sovereignty," which speaks to the need for local people to have control of their own food supply. This would require governance reforms that devolve powers to fisheries' stakeholders and communities in a governing system that involves government as well, as enabling small-scale fisheries' policies would be needed.

## Discussion

The case studies presented above have different stories to tell from their particular contexts around the world. They also address the governability of small-scale fisheries and the difference that different governing modes make. It is worth noting that small-scale fisheries seem to be undergoing the same trend of shifting from the hierarchical, command and control approach to a more cooperative partnership based

form of governance. Thus, also in small-scale fisheries, we identified a move from government to governance, in line with the visions for better governance expressed in the SSF Guidelines.

Indeed, the SSF Guidelines emphasize the governing role of small-scale fishers and communities. They also promote consultation and participation as one of their key principles. Co-management, or co-governance, is their preferred governing mode, in that it institutes many of the guiding principles of the SSF Guidelines, which enshrines stakeholder empowerment and participation. As our analysis also reveals, it is the mode toward which many states and fisheries' communities gravitate. Thus, the SSF Guidelines are not necessarily breaking new ground. Rather, they provide normative support to governance transformations that are already underway in many countries around the world, as exemplified in this paper.

Co-governance holds many promises when done well. For example, studies show that through increased collaboration and shared learning, higher compliance with regulations, community empowerment, and stakeholder buy-in can be expected (Jentoft et al. 1998; Wilson et al. 2003; Jentoft 2005; Berkes 2009; Gelcich et al. 2010). Many case studies discussed above provide ample evidence supporting stakeholder involvement in fisheries' governance. On the other hand, they point to several problems with co-governance, such as increased social conflict and perverse incentives for resource exploitation (see also Castro and Nielsen 2001; Gelcich et al. 2006). Therefore, in addition to not having a "one size fits all" formula for the co-governance mode, or any mode for that matter, changes are often required in order to enhance the capacity and quality of the governing system and for it to take on additional roles and functions such as those demanded for implementing the SSF Guidelines. For governability reasons, adjustment and adaptation to align with context is always important. This should not, however, exclude the need to challenge existing conditions and practices. Therefore, co-governance could also be an instrument for social transformation. The transformative interaction between the governing system and the system-to-be governed must be mutual; one of them should not be perceived as given. How they set the agenda for each other, and with what outcomes, is a major research issue for governability.

Governance may work at any mode. Therefore, the need for changing to a different mode may not be apparent in a given situation. Only marginal change within the mode may be needed. Governance change can therefore be small and incremental, and may eventually lead to transformation of the governance system. However, with the right "transformative opportunity" (Unger 2004), change may be more fundamental and structural, representing a gradual transformative shift at a given point. Governance transformation can also be abrupt, as when the governing system undergoes a total

reform, for instance when spurred by a crisis that calls for urgent actions. Likewise, a disjunction between governing orders may create pressure for change, as when current arrangements and practices of a particular mode are inconsistent with the meta-order guiding principles. According to the SSF Guidelines, change in the governance system at any order must be “appropriate” to fit the local context, but must also be principled in order to be ethically sound. The coherence between orders within any mode is, according to interactive governance theory, a major governability issue, which, once adjusted, can lead to better performance and appropriate responses. Thus, in the evaluation of the SSF Guidelines and their implementation, the extent to which transformation brings coherence between the governing orders is imperative. In other words, whether meta-principles are identifiable and the degree to which the design and performance of management institutions is consistent with these principles are salient issues.

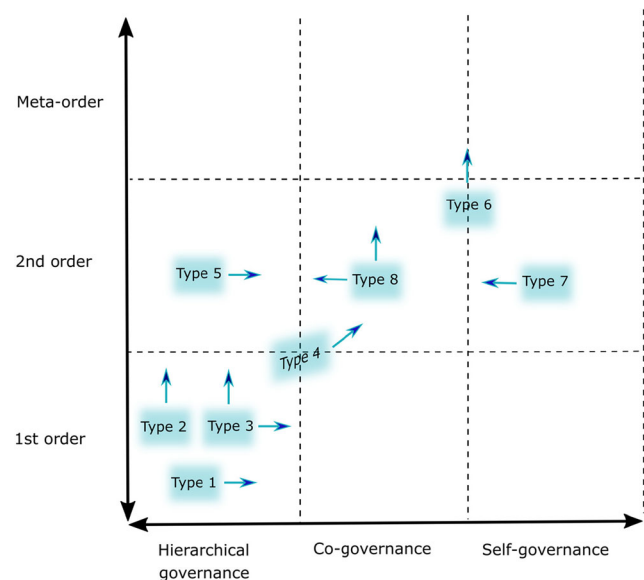
As our study reveals, for the most part small-scale fisheries are subject to a mixture of governance modes, drawing different elements from each to suit a particular context. This implies a “hybrid” or mixed mode of governance, which not only builds partnerships but also establishes a division of labor marked by different governance modes for different governability problems and management functions (Jentoft 2007). For instance, self-governance may be appropriate for some but not for all functions. Given the diversity, complexity, and dynamics of small-scale fisheries’ systems and the “wicked problems” that they harbor, this is how it should be. This is also why the frequent “as appropriate” clauses are included in the SSF Guidelines, suggesting reservation in the endorsement of governance reforms. Just like the system that it aims to govern, the small-scale fisheries co-governing mode has to be flexible and dynamic. The matching of the mode to the systems requires the governing system to be prone to change, willing to adapt, and open for transformation. Involving fishers, fish workers, and their organizations in co-governance can also mean different things depending on the context and local capacities. The SSF Guidelines start from the observation that small-scale fishers and fish workers find themselves in a marginalized and disempowered position. Yet, there are certain things that fishers and fish workers can do if, for example, they are better organized. To enable them to effectively participate in governance would most likely require more than a marginal adjustment in governance.

Our analysis of the case studies shows that modest transformation is fairly common in small-scale fisheries operating under a hierarchical governance mode and where the governing system is mostly occupied with addressing rudimentary problems. The case studies from the Netherlands, the Philippines, Ecuador, Colombia, Sri Lanka, and India (Cochin) give examples of fisheries with no significant transformation, even though they may have gone through some

change. Similarly, small-scale fisheries in Lake Victoria, Malawi, Iroise Sea, St. Lucia, Barbados, and Norway seem to be finding their balance in the co-governance mode with appropriate institutions. Further, the co-governance system in Brazil and Japan, as well as the self-governance system in Thailand, are well supported by the rules and regulations that enable them to function. This does not imply zero change. Rather, the change is trivial since it may involve only cursory observations of principles and rhetorical legitimization of existing institutions and practices.

Many types of transformation can be categorized depending on their positions and directions, as shown in Fig. 1. Following Table 1, the X-axis illustrates where the governing system is situated, under a certain mode of operation, as well as the possibility of shifting to another mode. The Y-axis shows the order in which the governing system operates and suggests the directional movement. The degree of transformation can be marginal and basic or significant and extreme, moving back and forth along one or both axes at the same time. The evaluation of the implementation of the SSF Guidelines should be attentive to the fact that transformation could take up any of these forms and can be found in all directions, horizontally, vertically, and diagonally, and both forward and backward.

Our study captures the majority of transformation types but not all that could possibly take place according to Fig. 1. Still, the study reveals great diversity in governance transformations that are taking place in small-scale fisheries around the world. Particularly, we identify eight unique types of



**Fig. 1** Types of transformation in small-scale fisheries’ governance. Type 1—enhancing participation; type 2—rearranging institutions; type 3—step-wise navigation; type 4—diagonal navigation; type 5—legitimizing institutions; type 6—articulating values; type 7—realigning governance; type 8—rethinking governance

governance transformation from the case studies. Type 1—“Enhancing Participation”—attempts to involve small-scale fishers and stakeholders in addressing the problems associated with their occupation, heading from hierarchical to co-governance mode but continuing to operate only at the first order. Examples of these are found in the case studies from Hawaii, Baja California, Portugal, Rote Island (Indonesia), and Newfoundland and Labrador. Type 2—“Rearranging Institutions”, on the other hand, examines the reform of existing organizations or the formation of new institutions (2nd order), also while operating under the hierarchical mode. This is exemplified in the Cyprus case study. Type 3 transformation takes this a step further by attempting to move the governing system out of the hierarchical mode into co-governance, thus leading stakeholders to potentially realize the need to also elevate the order of governance from focusing on addressing daily challenges to the consideration of new institutional arrangements. We refer to this transformation as “Step-wise Navigation.” Examples of these are found in the case studies from Belize and Sierra Leone. Unlike Type 3, Type 4—“Diagonal Navigation”—involves the simultaneous and complete transformation from hierarchical governance to co-governance, as well as from the 1st to 2nd order of governance. Such transformations can be observed in the case of Lake Winnipeg and Solomon Islands.

In some instances, appropriate institutions are designed, structured, and put in place by the hierarchical governing system. In order to operationalize them, involvement from stakeholders is required and thus the shift to co-governance is observed. This Type 5 transformation, referred to here as “Legitimizing Institutions,” can be found in the case of small-scale fisheries in South Africa and Alaska. Next is Type 6, “Articulating Values,” which reflects attempts to expound the inherent values of involved stakeholders and incorporate them in the reframing of governing institutions. This happens mostly when small-scale fisheries are governed under the co-governance or self-governance mode, such as in the case of Canary Islands and Senegal (co-governance) and in San Felipe, Mexico (self-governance).

Some transformation works in the opposite direction, as shown in Fig. 1. Type 7—“Realigning Governance”—is a movement from self-governance to co-governance. In the case of Zanzibar and Denmark, this is a reflection of the social and economic consequences of the implementation of ITQs for small-scale fisheries and their communities. Finally, in the case of Cambodia, we see an example of Type 8 transformation, which we would call “Rethinking Governance.” Here, small-scale fisheries are undergoing another potential reform, after the decentralization to community fisheries showing signs of troubles. This suggests that more engagement from the government authorities may be required, but in ways that also promote consideration of values and principles that matter to small-scale fishing people and their communities.

## Conclusions

Our analysis aligns with the growing interest in the “new governance” (Rhodes 1996), captured by a range of observers as a transformative shift in the way governing is exercised, where a top-down, hierarchical mode is increasingly replaced by more interactive modes involving civil society and private sectors. As shown in this paper, small-scale fisheries are no exception to this rule. Indeed, it is a trend that the SSF Guidelines encourage.

Drawing on “interactive governance theory,” our analysis starts from the assumption that both the system-to-be governed and the governing system are dynamic, that they interact within their own system and with each other (Kooiman et al. 2005). Thus, they tend to undergo changes that are caused by and create wicked problems (Jentoft and Chuenpagdee 2009). Social and ecological change may occur for external reasons, as with natural hazards or globalization, but they may also happen due to developments and interventions that are internal to the two systems and their interactions, as when there is disconnect with the governing orders (first, second, and meta-). Such change can be gradual or abrupt. In addition, they may be subtle and hard to observe. Therefore, they may go unnoticed or be ignored entirely, just like many small-scale fisheries, which the SSF Guidelines aim to avoid. However, when governance responses do occur, they always take place at various governing orders, which in the process of intervention may result in transforming the governing practices and the institutional mechanisms that lead to change. Such a change may be evolutionary, incremental, adaptive, or additive, but may also take place in a short time span and cause fundamental, structural, and systemic shifts. The rate rather than the direction of this trend may, as Polanyi notes (see initial capture), “well may depend upon us,” i.e., happen at our own will.

In our analysis of small-scale fisheries’ governance, we have seen examples of how both the rate and the direction of the transformation can be determined through direct intervention. Interactive governance theory provides a perspective that enables us to see the diversity through which such change may occur. It also calls to attention the multiple directions of these changes, including forward and reverse processes, as well as their paces. It is possible that no change happens or that change is so insignificant that the system design and practices remain the same. In our paper, we have named eight unique types of change based on the case studies, but in reality there may be many more.

Overall, our study reveals a trend in which governing systems are moving toward a more participatory co-governance mode, away from a top-down, hierarchical approach, where governments dictate, or from a self-governing mode where developments occur with no other steering than the vagaries of the market. Both movements can be seen as empowerment and as a way of reducing the vulnerability of small-scale

fisheries and communities. In most case studies, small-scale fisheries' stakeholders are formally included in planning and decision-making, where they voice their interests and negotiate the rules either directly or through their representatives. Still the issue remains in some cases, as not all relevant stakeholders are able to participate on an equal basis due to power inequality.

As illustrated in Fig. 1, for some transformation types, the governance practices at the first-order are changing. In other instances, institutions are redesigned or invented. We are also witnessing that the meta-order images, values, and principles underpinning management are subject to resumed, critical reflection. Fundamental transformation is taking place when small-scale fisheries' governance undergoes change at all orders while shifting to another mode. Under which circumstance one or the other happens is a priority for future research. For example, one may assume that social and ecological crisis may play a role in such transformations. Power relations would be something to look at, as changing governing practices and systems never occur in a power vacuum. More generally, one should not only focus on the end-point but also on where governance transformation begins. Stakeholders may or may not perceive the need for transformation of the existing fisheries' governance systems; in some instances only marginal change will do. Social, political, cultural, economic, and ecological contexts always matter; thus, there is always something unique about the system-to-be governed and the governing system related to place and time. For this reason, the diversity of governance systems and practices in small-scale fisheries that exist globally is what one would expect to find. One should not presume that one governance mode necessarily works better than another, or that there is a single recipe for how to govern small-scale fisheries that will work for all. That is something for research to determine.

However, we must distinguish between the nature of change at different orders. At the first-order, change must be pragmatic and can occur at short notice. Second-order change would be slower since institutions must have a degree of stability and predictability in order to provide security to small-scale fisheries stakeholders. Instituting new rules and regulations, for instance, is assumed to be more demanding and therefore slow, as it leads to more systemic, permanent change. From a stakeholder perspective, such transformation has implications for their position within the system. Such decisions are therefore not as easily delegated to administrators because they cannot be routinized. Meta-order values and principles, on the other hand, are over-arching, which means that they are not subject to the same degree of pragmatism and opportunism, as would be the case at the lower orders. When the SSF Guidelines in paragraph 5.15 promote the idea that states should involve small-scale fishing communities in the design, planning, and implementation of management measures "as appropriate," appropriateness is primarily for the

first- and second-order. At the meta-order, the SSF Guidelines underscore the application of the universal human rights principles as basic for small-scale fisheries' governance, regardless of context. Therefore, for the progress that the SSF Guidelines hope to achieve, these transformations should be examined for each mode of governance, within the order that they occur, and for the coherence that they may bring between one order and the next. This is the topic that researchers and practitioners should follow-up on in their effort to contribute to the future sustainability of small-scale fisheries around the world.

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