Chapter 20 A Better Future: Prospects for Small-Scale Fishing People

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The call to action and change is compelling. It is to define development as equitable wellbeing for all, to put the bottom poor high on the agenda, to recognize power as a central issue, and to give voice and priority to poor people. It is to enable poor women and men to achieve what they perceive as a better life. These basics underpin efforts to transform the conditions poor people experience, empowering them with freedom to choose and act.

Source: A call to action: The challenge to change (Chapter 12 in Voices of the Poor: Crying Out for Change)

Abstract Before one can begin to create a better future for small-scale fisheries and those who depend on them, one would first need to *imagine* it. What scenarios are likely and which are preferable to others? One would also need to think about how to get from where small-scale fisheries are now, to where we want them to be. What governance initiatives would be needed? What is more urgent? What should happen first? This final chapter synthesizes the lessons for policy and governance that can be drawn from the case studies that have been presented in this volume. All PovFish participants were invited to submit their own views about what the key messages from their contributions are and what others should learn from them. The chapter builds on their ideas and propositions, and includes excerpts from what they formulated. It also brings back some of the theoretical issues that were discussed in Part 1 - *Positioning*.

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S. Jentoft and A. Eide (eds.), *Poverty Mosaics: Realities and Prospects in Small-Scale Fisheries*, DOI 10.1007/978-94-007-1582-0_20,

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20.1 Introduction

Small-scale fisheries are too big to ignore. They employ millions of people around the world, and are major providers of food to a growing human population. They play a significant role in alleviating global poverty. Still, small-scale fisheries harbor a lot of poor people whose livelihoods are less than secure. This situation calls for bold governance initiatives. Small-scale fisheries must be elevated on the political agenda. But before we can begin to create a better future for those who depend on them, we need to think about what small-scale fisheries can possibly be and what kind of future they can offer. We also need to be creative about policies and interventions.

This volume offers a wide range of ideas of what can be done. Many come directly from the poor themselves. The case studies present the voices of people who live the small-scale fishing life. In interviews, they talked about the problems they face and the things that are holding them back. They also spoke about what makes them satisfied and happy, and what their aspirations are. They do not believe that change is easy or even very likely. But they have made criticisms of and demands on government, and have suggested what should be done to improve the situation of small-scale fisheries.

Before we can begin to create a better future for small-scale fisheries and those who depend on them, we first need to imagine it. What scenarios are likely and which are preferable to others? We also need to think about how to move smallscale fisheries from where they are now to where we want them to be. What governance initiatives are needed? What is most urgent? What needs to happen first? What are the obstacles and governability limitations? This final chapter synthesizes the lessons for policy and governance that have been drawn from the case studies presented in this volume. All PovFish participants were invited to submit their views about the key messages from their contributions, and what others should learn from them. This chapter builds on their ideas and propositions, and includes excerpts from the responses that they formulated. It also brings us back to some of the theoretical issues that were discussed in Part I.

20.2 Fisheries Development as Freedom

Marloes Kraan states that small-scale fishing can also take place on a large scale (as in Ghana, Chap. 8), and thereby has large-scale implications for – amongst others – fish stocks. In some parts of the world, as illustrated by Bavinck (India, Chap. 9), the number

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of people employed in small-scale fisheries has increased dramatically in recent decades, and the fishing pressure that this sector is now dealing with cannot be overlooked.

Rather than assuming that freedom of the commons causes excessive fishing strain, we argue for critical thinking about what freedom in the fishery commons means and can possibly become in the future of small-scale fisheries. It cannot mean the freedom to ruin the resource, as Hardin (1968), Graham (1939) and others warned against. We suggest, for instance, that we should also consult Amartya Sen (2000, p. 10) who argues that freedom is "not only the primary ends of development, it is also among its principal means." Small-scale fishers may be poor for other reasons than the freedom to overexploit the resource, as Ståle Knudsen holds in his proposition. Rather, in many instances described in this book, it is the freedom of the commons that allows small-scale fisheries to avoid poverty, be it relative or absolute, and it is poverty that drives people to sometimes fish beyond the limits that the resource can sustain.

Notably, the freedom Sen (2000) talks about is not a freedom to overexploit and destroy but a freedom to pursue a better life, built on secure entitlements, proficient capabilities, and social justice that enables people to be resourceful, autonomous, and creative in forming their own institutions. These freedoms are also emphasized by the people interviewed by the PovFish research team members. It is also the freedom that local people need to be more effective stewards of their common resources. This leads Paul Onyango (Tanzania) to conclude that "expansion of freedoms and capabilities of the poor should ideally be the foundation of poverty alleviation."

The small-scale fishers interviewed for this volume all talk about protective security, availability of health services, and education for themselves and their children. They also talk about their need for credit so that they can invest in means of production, and for improved market access that allows them to sell their produce. Many also mention political participation and freedom to organize so that they are collectively capable of managing their own affairs, including their commons and communities. It is true, as Kraan mentions, that small-scale fisheries may have the capacity to overexploit and that growth may therefore need to be kept in check. But such control can be well exercised in the form of "mutual coercion, mutually agreed upon," as Hardin (1968, p. 1247) puts it. This is also the principle of co-management (Jentoft 1989), which several of the PovFish team members recommend for their area.

20.3 Aspirations for a Better Future

What fishing people hope for themselves, their families, and communities is discussed in many of the chapters within this volume. Like anyone else, they want to be more secure, healthy and in a better financial situation. There is nothing worse than not being able to send your children to school or your spouse to a doctor. Small-scale fishing is also hard work, with long hours, and in conditions that are not always safe. In some cases, small-scale fishers are victims of abuse, either from government officials, middlepersons, or others who do not refrain from exploiting their weaker position. Despite such hardships, small-scale fisheries also come with many rewards; food on the table, a relatively reasonable income, a life together with family and friends in familiar settings. Unlike large-scale fisheries, small-scale fishing allows fishers to be self-employed and to be their own manager. Small-scale fishers appreciate the *positive* freedom that comes with this occupation – the freedom *to* organize their day and pursue their life's meaning. But small-scale fishers interviewed by PovFish team members are also worried about their *negative* freedom, the lack of protective security – the freedom *from* the things that keep them entrapped in poverty. This distinction between negative and positive freedom was made famous by the philosopher Isaiah Berlin (1969).

It is for these reasons that Onyango and Kraan take issue with an often expressed view that small-scale fisheries is an occupation of last resort, and that fishers would prefer to leave if there was an opportunity to do so. Rather they emphasize that small-scale fisheries are, for many, a way of life, and an occupation that comes with a lifestyle that they value and which they were brought up with. In the case of the Anlo-Ewe fishers of Ghana, according to Kraan, fishing "is a thriving self-managed sector" and "has been so for centuries." Both Kraan and Onyango argue that disregarding or disrespecting the deep attachment that fishing people have to their way of life may not only bring harm to them but that it also may reduce the effectiveness of resource management because people will rebel against it. The government's subsequent response may easily worsen the situation and turn non-compliance and enforcement into a vicious cycle.

Boulding (1977, pp. 286–287) argues that "identity is a very powerful source of decisional behavior. People make decisions with regard to their images of the future and the consequences that they anticipate that their decisions have." But they also do so "in accordance with their value structure... which depends very much on the nature of the individual image of identity." Given people's often strong identification with small-scale fisheries, Kraan holds that "policies aiming at offering alternative livelihoods to fishers may prove to be unsuccessful." She thinks that it is better to create supplementary jobs that can be combined with fishing, as people can benefit from increasing their sources of livelihood.

Indeed, this is also how small-scale fishing people survive in many instances, like in the Pearl Lagoon area of Nicaragua, described by Miguel González (Chap. 13). Rather than having all their eggs in one basket, they need to spread them in several. People are able to survive because they rely on multiple sources of food and income. But for this, people need secure access not only to fishing, but also to land and forest; and they need to have access to markets for the produce that they do not consume in their household and local community.

20.4 Well-being as a Priority

The freedom that comes with being a small-scale fisher is something that cannot be taken for granted, as it is often taken away by governments that do not believe in the freedom of the commons. A problem with policy prescription that restricts fishers' ability to cope with their situation is that it easily exacerbates the deprivation of those who are already poor, vulnerable, and without other livelihood alternatives. In poorly developed small-scale fisheries, where the level of technology is low, access to investment capital is difficult, and the simplest infrastructure is inadequate or non-existent, removing freedom of access to the fishery commons is tantamount to confiscating the only entitlement that poor people have to sustain themselves (cf. Béné et al. 2010). In such a case, poor people will not remain passive.

Rather, as is the situation in South Africa, described by Moenieba Isaacs (Chap. 16), they sometimes resort to unlawful practices. Poor small-scale fishers will, as Isaacs argues, employ what James C. Scott (1985) originally coined the "the weapons of the weak"; in this case fishing illegally. Similar situations also occur in other countries discussed in this volume, like Vietnam and Bangladesh. The reason for this is not only that they need to fish in order to feed themselves and their families, but in many instances they fish using traditional methods and gears as they have always done. When it is not clear to them why governments ban certain fishing practices, they are left thinking that they are being treated unfairly. This illustrates that illegal fishing practices have complex motivations and are, as Hauck (2008) submits, often as much about social justice as about criminal justice.

Writing from Bangladesh, Mohammad Mahmudul Islam thinks that providing credit to fishers should be a priority. People need credit to get back on their feet when their assets are wiped out after a cyclone. Without credit, they cannot diversify their livelihood base. Similar to Onyango (Tanzania), and Kim Anh Nguyen and Ola Flaaten (Vietnam), Islam also thinks that policies should be directed toward maintaining (and expanding) the working conditions and physical security of fishers, as they are often at risk when out at sea, for instance because of piracy. He argues that fishing people also need education and healthcare to be productive, as illness in the family, accidents, or loss of gear may easily jeopardize livelihoods. Mafaniso Hara (Malawi) argues that "women and their children are particularly vulnerable when their husband (the breadwinner) dies as this can mean sudden and abrupt loss of income and its source." Another problem in Malawi is that heritage law systematically disfavors women.

For this reason, Islam states that "poverty alleviation strategies and policies for fisheries communities should not only target men, but also aim at uplifting the women and the contributions they make by focusing on female education." Thus, as was also stressed in Chap. 4 by Svein Jentoft and Georges Midré, it is important to recognize that poverty is also gendered. Women's well-being and action space in fisheries are equally essential. Therefore, fisheries development aimed at poverty alleviation must also include policies focused on development *of* and *for* women. Alternative and supplementary job creation must be for women and for the household, and not just for the men who most often draw the fish out of the water. A gendered perspective on fisheries development and poverty alleviation necessarily involves a fisheries chain analysis, as argued by Chuenpagdee and Jentoft in Chap. 3.

20.5 Secure Rights Are Essential

Fisheries development and poverty alleviation must also include rights. Rights to nature can also be seen as innate. For people who are poor, to have access to the resources that they depend on for their food security and livelihood is a matter of survival. People should not be excluded from harvesting the natural resources they need to feed themselves – in this case those of the fishery commons – but they can be helped to do it in a way that is sustainable and leaves room for the next generation. In some instances, they need to be presented with alternatives to current practices so that they can expand their freedom of choice.

This is as much a human rights issue as it is a property rights issue. Human rights in recent years have become more accentuated in fisheries management, particularly with regard to indigenous peoples' fishing rights. In fisheries, human rights and property rights have usually been treated as if they belong to separate spheres; the former as a basic right of people not to be excluded or discriminated against; the latter as a regulatory tool which does exactly that, since property rights always involve exclusion following a demarcation between the "haves" and "have-nots." In resource management, such exclusion tends to be regarded as inevitable collateral damage – unfortunate perhaps, but still justified by the life-boat ethics that Hardin (1977) represents. This conflict of human rights and fisheries rights has been brought into sharper focus since the 2008 Global Conference on Small-Scale Fisheries, organized by the Food and Agriculture Organization of the United Nations (FAO 2008).

González (Nicaragua) emphasizes the need for resource rights for small-scale fishing people that involves more than fisheries. "Land and aquatic rights in small-scale fisheries should be conceptualized in a holistic way so as to better tackle communities' needs in securing a sustainable resource base." Rights-based systems come in different forms, and some are more sensitive to small-scale fisheries, local communities, and human rights than others. Vesting resource rights in communities, as in the case of Nicaragua, is a way of securing livelihoods while at the same time enabling communities to be better stewards of their natural resources and ecosystems. In Nicaragua, the concept of communal rights has both legal and popular backing in domestic and international law pertaining to indigenous peoples. Globally, however, fishing rights conferred to local communities are still an exception (Kurien and Willmann 2009). Instead, the situation is more like that in South Africa where, according to Isaacs, those who are already privileged with individual resource rights are generally opposed to the idea that rights should be vested in legal community entities, as advocated in the new small-scale fisheries policy.

20.6 Dealing with Vulnerability

Even if small-scale fishers are not always the poorest of the poor, they are often vulernerable and therefore at risk of slipping (back) into poverty. To borrow the title of Anirudh Krishna's recent (2010) book, they are in many instances just "one illness

away" from poverty. The vulnerability of small-scale fisheries is close to the hearts of several members of the PovFish research team. Based on their Mexican experience (Chap. 10), Silvia Salas and Maiken Bjørkan state:

While dealing with poverty, many countries have tried to orient their policies toward changing some marginality indicators, without addressing crucial issues related to vulnerability, which can also expose people to poverty. Temporary palliative solutions cannot build resilient systems; it is necessary to recognize this condition and identify the necessary steps to reduce vulnerability and improve population welfare.

Drawing from their Sri Lankan case study (Chap. 17), Oscar Amarasinghe and Maarten Bavinck point out that "the relationship between vulnerability and poverty in fisheries goes both ways, thus forming a vicious circle. To break this circle, the fishers should be provided with diverse livelihood capital to improve their resilience capacity." These authors also focus on the potential stewardship role of cooperatives: "More attention on resource governance is required from their leaders, if the cooperatives are to be successful in the long run." Islam (Bangladesh) is similarly adamant about the functions of cooperative organizations as safeguards against crises. In his opinion, they are an obvious measure that can be established to reduce vulnerability. Chuenpagdee and Juntarashote share this faith: "The examples of the marketing cooperative in Thailand and the good relationship with fishmongers and middlepersons can be replicated elsewhere."

Small-scale fishers often find themselves in fierce competition with other resource users. They are not necessarily poor because they overfish, but because others do so. They are sometimes pushed aside and replaced by other resource users, as when industrial vessels encroach on their fishing grounds, when marine protected areas are introduced, or when tourist developers occupy their beaches. In some instances, they become impoverished because they do not get a fair share of the value of their produce due to their weak bargaining power with middlepersons. Poverty may therefore be alleviated if policies help to spread opportunities and incomes more equitably.

As recognized by Eide et al. in Chap. 2, and by Maarten Bavinck in Chap. 9 about India, the fishing industry is also a place where fortunes are made. Therefore, one cannot consider poverty in fisheries without also considering the wealth that they have created during the industrialization of the twentieth century, and the way it is distributed. Indeed, small-scale fishing people may be poor even if their countries are not, as income generated at the national or industry level, through international trade or foreign assistance, does not always "trickle down" (as Jawaharlal Nehu, the first Prime Minister of India coined it) to local communities (cf. Arndt 1983; Hersoug 2004; Béné et al. 2010). Governance systems that do not grant smallscale fishers the power they need to withstand exploitation, and mechanisms that are not transparent or honest, exacerbate this problem (Robbins 2000; Sumaila and Jacquet 2008).

As PovFish researchers observe in this volume, such vulnerabilities are often due to poor organization and weak institutions that leave small-scale fishing people without bargaining power or insurance mechanisms and, thus, defenseless. Cooperatives may help counteract this predicament, as they did in Norway in the 1930s when a law granted fishers' sales organizations monopoly rights and the authority to fix minimum prices on their produce (see Jentoft and Midré, Chap. 4). Andrade and Midré (Guatemala) argue the same: "Strong fishers' organizations could also be the first step to increase bargaining power." But how such an organization is formed is also important.

Drawing from the experience of the Indo/Norwegian fisheries development project in Kerala that began in the early 1950s, Kurien (1985) points out a major difference between forming such organizations by and for fishers. Cooperatives have a better prospect of success if they are generated from within the community than when introduced and established from the outside, because they need local support and loyalty. This, however, does not take away the fact that community organizations, including cooperatives, need external support, such as enabling legislation that permits them to enforce management decisions that restrict the freedom of members to overexploit and unites them around a common goal.

20.7 Learning from the Poor

Policymakers and fisheries managers are obliged to understand what small-scale fisheries mean to people, what their lives are all about, what choices they have, and how they would like to improve. This argument is also advanced by Narayan and co-authors (2000). Policymakers should not assume that a fishery not managed by the government is not managed at all. Rather they should clarify and learn from how small-scale fishing people previously or currently are managing their livelihoods and resource use based on how they know their ecological and social systems (Berkes et al. 2001). What precautionary principles and ideas of justice do people abide by? What do people think is necessary in order to be ecologically, economically and socially safe?

The social and ethical values that people ascribe to, form a basis for their fishing and management practices. Ignoring them may easily lead to failure, because people will be unable or unwilling to relate to government initiatives. As also stated by Onyango, fisheries management and poverty alleviation initiatives can only be significant "if they are built upon the meaning and value that fishers attach to the fisheries." Too often, fisheries management and development reforms start without such a deep understanding. In many instances, it is a preconceived idea of the solution that defines the problem, as when policymakers, managers, or NGOs operate as champions of certain management tools derived from international environmental and governance discourse (Degnbol et al. 2006). With globalization, this tendency has increased in recent years. The consequence is that particular concepts and models are imposed on people from the outside, leading to institutional misfit, which in the past has often been the situation with fisheries cooperatives (Jentoft 1986) and is now being repeated with quota systems and marine protected areas (Degnbol et al. 2006).

After generations of experience from working on the water and from dealing with management authorities, small-scale fishers have their own inherited and selfgenerated ideas of what constitutes sound management, and what the ecological, social, and institutional conditions are and must be. As several PovFish members emphasize in this volume, in many instances small-scale fishers exercise their own customary rules that government can learn from. People have standards and mechanisms for dealing with user-conflicts, irregular fishing practices, and justice. Talking from a Guatemalan perspective, Andrade and Midré believe that customary rules, be they formal or informal, should be incorporated into the governance toolbox. This idea is supported by Bavinck, as these rules "play an important role in limiting the inflow of labor into fisheries, as well as steering the increase of fishing effort. Policymakers therefore need to pay more attention to the possibilities afforded by customary law to govern fisheries for sustainability." This is particularly the case, Bavinck argues, because, "coastal regions are not equally 'covered' by customary law. To the contrary, there are variations in the substance and effectiveness of customary law along the coasts." This calls for sensitivity but also action in order to "reinforce customary law in districts where it is weak and has potential." In other words, there is also a precautionary principle to abide by for the social system.

González, who speaks from his Nicaraguan case study (Chap. 13), shares this view:

Securing a resource base for communities that depends on small-scale fisheries requires us to understand the complexities and complementarities of local ecological systems. These systems are very often mediated by community norms that strive for sustainability. For the world of poverty alleviation and vulnerability, it is important to nurture conducive policy and institutional environments sensitive to these practices.

He concludes that "poverty alleviation programs in small-scale fisheries should not be disassociated from strategic empowerment. In the long-term, a successful reduction of poverty might be sustained if the concerned community is able to deploy its full capacities to secure its livelihood."

20.8 Involving People

Small-scale fisheries and the poverty and vulnerability that people experience within them need careful consideration and reflection, based on "thick description" (McCay and Jentoft 2010) of the complexity and diversity of local contexts, just as the PovFish authors have provided. For policymakers and public officials to do so, they also need to move away from the image of the small-scale fisher as a person who is only and fundamentally deprived because he/she is short of economic, social, and cognitive assets. Instead, they must begin to recognize fishers' actual and potential resources and capabilities and therefore facilitate opportunities to extend their freedoms.

Poor people certainly have deficits, but they also have adaptive capacity that can be enhanced. They have learned from what they have experienced, and are able to continue to do so. As Chuenpagdee and Juntarashote state, drawing from their Thai study (Chap. 14), fishers are "the true poverty experts, not so much because of their experience with poverty alone, but more because of their deep understanding about their situation and their own potential to overcome poverty." Indeed, there are important lessons to be learned about how to alleviate poverty from how poor people actually cope with it, how they utilize their resources and mobilize the capabilities that they have, and how they, as Ståle Knudsen points out from his Turkish insights (Chap. 11), in some instance are able to break the trap that they are in and move out of poverty.

It is also for this reason that poverty alleviation, however well-intended and warm-hearted, cannot and should not be imposed on people from the top-down. It matters to people how things come about, whether a particular good is handed to them or created by them (Sen 2009). This is also an issue of human dignity and freedom. Therefore it is essential to encourage their involvement and facilitate their empowerment. Indeed, Knudsen argues that lack of capacity to participate can be considered a dimension of poverty, and that the marginalization of small-scale fishers undermines the capabilities which they need to become involved. In a similar vein, coming from the Polish experience (Chap. 7), Boguslaw Marciniak states that sustainable fisheries development "should include from the very beginning the active participation of fishers and other inhabitants of coastal areas in the management of local resources." This is also about freedom that is strengthened by political democracy and social justice, and which led Amartya Sen (2009) to stress the need for not only getting the institutions right, but also the social and political processes that people are engaged in. The common assumption is that poor people are not interested in democracy, that other issues are more urgent, and that they are not yet ready for it. There is nothing in this volume to suggest that this is the case – quite the contrary, as with the support of co-management among the poor fishers in Mozambique, for instance. Involving the poor in participatory democracy does require capabilities and entitlements (such as institutions) but these are, as Krishna (2008) argues, more about education and information than about wealth per se.

20.9 Going Beyond Fisheries

Fisheries poverty is not always and necessarily only or basically a fisheries problem. Small-scale fishers often find themselves at the receiving end of a string of causes and effects that originate outside fisheries. This requires, as Chuenpagdee and Jentoft argue in Chap. 3, a "chain analysis" of poverty and vulnerability, and hence a broad perspective that emphasizes linkages and systemic relationships and interactions of fisheries (cf. Kooiman et al. 2005). Thus, Knudsen (Turkey, Chap. 11) concludes that the analysis should move beyond the vicious circle of poverty and overfishing.

As also described by Marciniak (Poland, Chap. 7) and González (Nicaragua, Chap.13), small-scale fishers are witnessing the degradation of their estuary, and poverty may well be due to unsustainable fishing practices. But in both instances, there is also a severe soil erosion problem related to pesticide run-off from agriculture and up-stream forestry, which are beyond fishing people's control. González

argues that in order to sustain their livelihoods, those who fish the lagoon also need to sustain their land and forests and, to do so, they need to secure cooperation from people who make their living in other sectors and the authorities who oversee them. This requires an integrated governance effort where different industries that impact livelihoods are dealt with simultaneously. On a similar note, Chuenpagdee and Juntarashote (Thailand) state:

Poverty in fisheries cannot be alleviated only through improving the fisheries situation. It requires a broader perspective that includes looking at improving other aspects of people's livelihoods, such as transportation, education, health, and information technology. Improving these other aspects helps de-marginalize small-scale fishers economically and politically, thus making them less vulnerable.

Menezes, Eide, and Raakjær (Mozambique) also call for an "integrated approach where more attention should be given to infrastructure that would boost development of markets and therefore act as the foundation of wealth creation." They further think that fisheries development must include the "provision of public goods assisted to propel community participation, and leadership at central and local levels (co-management and other associations), assisting the creation of a fisheries community identity." They also emphasize the need for awareness of the fact that "policy instruments for one specific sector do not act in isolation, but are part of an intricate matrix of factors affecting the whole social-political system."

The need for supplementary and alternative sources of livelihoods is a recurrent issue among PovFish team researchers. They emphasize the positive impact on the ecosystem and income security for the poor. Nguyen and Flaaten (Vietnam) observe that: "In general it is hardly possible for people to achieve more in open-access fisheries than in alternative income-creating activities." On a similar note, Hara (Malawi) maintains:

In situations where fishers desperately need to continue deriving livelihoods from fishing even when a fishery might seem to be degraded because of lack of competitive or comparable economic opportunities outside fishing, they will argue against proposals from Departments of Fisheries for reduction in fishing effort. Policy has to be towards broadening competitive economic opportunities outside fishing, which can attract people away from fishing, if reduction in fishing effort is to be acceptable in fishing communities.

Also Andrade and Midré support this view, and suggest that "policies aiming to reduce fishing pressure are likely to fail regardless of the management regime, unless other income-generating activities are developed." In Amatique Bay in Guatemala (Chap. 19), which they base their lessons on, the fishery provides income and food for people who have been displaced from other productive activities. "Land reform could reduce pressure on fisheries because some of those migrating to fishing communities will find livelihoods in traditional agricultural areas." But, as mentioned already, small-scale fisheries as a way of life often sits deep in people's identity and community heritage. If alternatives are provided, people do not necessarily find them culturally advantageous. If possible, therefore, alternatives should be developed within the small-scale fisheries sector, for instance within post-harvest activities, as pointed out by Chuenpagdee and Juntarashote for Thailand.

20.10 Creating Capable Government

To create employment alternatives as a way to alleviate poverty and reduce fishing effort, Nguyen and Flaaten stress the constructive role of government. This relates to common goods in general, including the provision of essential material, social and institutional infrastructure. But as Menezes, Eide, and Raakjær also argue from the Mozambique experience, "poor design and weak implementation make policies sometimes fail, to the dismay of their well-intentioned authors." Partly, this is an issue of "governability" (see Chuenpagdee and Jentoft, Chap. 3; Kooiman et al. 2005); government agencies do not have sufficient capacity and capability to carry out their role. In many developing countries, governments do not have the research capacity to generate the biological and social data they need to play a credible management role. Resource management, the science underpinning it, and the surveillance mechanisms needed to make enforcement effective, are often beyond their financial means. As Hara claims in the case of Malawi, the Department of Fisheries therefore "has no leg to stand on! (as it were)" when they try to enforce management decisions. The department "is always lagging behind the technical developments in the fishery" and is therefore too late in responding to overfishing.

Other members of the PovFish research team also point to the often inadequate capacity of government. Isaacs (South Africa) holds that government staff is not as well trained as it should be. Management agencies also lack the funding they need to build capacity. Salas and Bjørkan (Mexico) therefore believe that "building capacity within the institutions in charge of fisheries and coastal management is a necessary condition to move ahead with the solution of poverty conditions in coastal areas." But for the effective implementation of management and development policies, there must also be capacity at the receiving end of the governance system – within what governance theory terms the "system-to-be-governed" (Kooiman et al. 2005).

Therefore, as Salas and Bjørkan also argue based on their research experience in Yucatan, Mexico (Chap. 10), "...it is essential to increase fishers' adaptive capacity to deal with the increasingly risky conditions that the fishery sector is facing, especially within the small-scales fisheries." This would certainly make governance efforts less demanding, but it would also require initiatives by the government "to help strengthen the capacity of coastal communities using a long-term perspective" (Salas/Bjørkan). Again in governance parlance: to build adaptive capacity within the system-to-be-governed, it also makes sense to build such capacity with the "governing system" (Kooiman 2008). For government to increase the level of knowledge and education in local communities, it must itself first acquire this knowledge. But González argues:

Policymakers (and NGOs) involved in designing/proposing small-scale fisheries' poverty reduction programs should be attentive to the great diversity in adaptive capacities deployed by fisher communities (resourcefulness) and individual fisher folks. Adaptive capacities to cope with poverty and vulnerability have forced fishing communities to diversify their sources of income and livelihood sustenance. These practices are not always acknowledged by governments, international funding agencies, and NGOs.

20.11 Building Stronger Communities

González's observation calls for more interactive learning. Building governance capacity works better if government and communities learn from each other. This is also in line with what Armitage and co-authors (2007) want to capture with the concept of "adaptive co-management," which they built on the argument that resource management institutions need to be flexible in order to create resilient social and ecological systems. It is therefore important to work with government and local communities in a mutually supportive way. From their case study in Vietnam (Chap. 15), Nguyen and Flaaten conclude: "To attain the goal of poverty and vulnerability alleviation in the area of fisheries, it is necessary to follow a new approach that includes both governmental institutions and the local organizations of fishermen in a cooperative manner. Poor fishermen should be active partners who themselves have to find the causes of their poverty and suggest solutions."

On a similar note, Salas and Bjørkan (Mexico) state that "it is necessary to generate opportunities for people by improving their skills, diversification of livelihoods and assets of coastal communities, as well as by developing contingency programs to overcome the increasing challenges that people in these communities are facing."

PovFish researchers point to the importance of building stronger community organizations as a means of building such capacity. Isaacs (South Africa) stresses the need to "create legal entities that are representative of those fishers who were left outside the formal rights allocation process [as] crucial for the successful implementation of a policy" aimed at poverty alleviation among small-scale fishers. Fishing cooperatives, which have already been mentioned in this concluding chapter, are such legal entities, and they have general application. But to become legal entities, community organizations such as cooperatives need the recognition and support of government.

Building communities is also about building social capital and networks between people based on familiarity, trust, solidarity, and mutual support. Islam (Bangladesh) emphasizes the relevance of networks for sharing information to alleviate poverty from the bottom up. This is also consistent with Tilly's (2007) observation that "most of the world's very poor people, it seems likely, lack favourable categorical memberships and helpful connections."

Amarasinghe and Bavinck (Sri Lanka, Chap. 17) focus on the role that fishing cooperatives play in strengthening social capital for collective action. Cooperatives would benefit from state support and recognition, but may also compensate for the absence of such support as instruments of self-help and community control. Social capital is also among those resources that cooperatives draw from. Thus, cooperatives and social capital can potentially form a virtuous circle, as these two authors illustrate by the SCACO model.

However, given the complexity of cooperatives as institutions that try to balance welfare, business, and resource management functions, one should not be surprised of their often mixed results. They sometimes try to do too much, but without anyone to share responsibilities, in many instances, they are left to do whatever they possibly can. As demonstrated in Sri Lanka, some fishing cooperatives have proven more successful than others and are therefore variably effective as community organizations. This is partly for internal reasons; cooperation is no doubt challenging, their goals are often inconsistent, and cooperative leadership is usually characterized by role conflicts.

Still, for communities to be resilient and sustainable they must, with or without a cooperative, be able to overcome such challenges. They cannot afford much conflict if they are to become effective stewards of the resources that are the foundation of their livelihoods. In the case of Ghana and India, there are traditional institutions in place which, backed by customary law, play important governing roles largely independent of state government. In the absence of government or formal organizations such as cooperatives, local institutions – such as the Panchayat system in Tamil Nadu, India (Bavinck, Chap. 9) and local chiefdoms (Kraan, Chap. 8) – have a long history of addressing collective concerns in their communities. The fact that these institutions have been operative for a long time does not automatically mean that they are not fit for the modern age. Thus, if they exist, it may be wise to help strengthen them.

Replacing customary institutions with some other form of institution, such as cooperatives, is not necessarily a good idea. Neither should government replace them if they are capable of doing the job or if, with support, they have the potential to do so. This is also the reasoning behind "legal pluralism" as put forward by Bavinck (Chap. 9) and Kraan (Chap. 8).

20.12 Governing by Principles

Viewed together, the chapters in this volume provide a diverse portrait of small-scale fisheries, which vary according to circumstances and places. Therefore, governing interventions for small-scale fisheries must always be measured against ecological and social contexts. This implies that governance needs to follow what we refer to as the *dexterity principle*, by which we mean sensitivity to details that differ from one situation to another. It also means taking into account how people are actually living and operating, and what they value. When Kraan (Ghana, Chap. 8) argues that management institutions and development strategies must always be embedded in the reality of "plural normative orders" that exist within small-scale fisheries, she is alluding to this principle. The dexterity principle is also evident in Anirudh Krishna's (2010, p. 5) observation that: "Reducing poverty more effectively in the future will require attending carefully to the minutiae of everyday lives."

Governance designs according to the dexterity principle require broader involvement than that of central government. Decision-making must be brought closer to where the problem is actually experienced and where many of the solutions must be sought. Thus the dexterity principle leads logically to another governance principle, that of *subsidiarity*, which states that management's decision-making authority should be vested with the lowest possible organization. This principle is particularly relevant to poverty alleviation where, according to Mehrotra and Delaminica (2007, p. 212), integrated approaches aimed at creating synergies "between interventions in the spheres of health, education, sanitation, productive health and nutrition with a geographical location" are needed. (In fisheries, we must also include resource management on this list). These authors argue that, "the state is incapable of delivering these services effectively as long as it operates vertically."

Notably, the subsidiarity principle does not necessarily exclude the state from the equation. The state can and should provide macro-economic and institutional policies aimed at alleviating poverty through fisheries development. It also, as has been argued in several chapters, holds a responsibility for providing certain collective goods, which include a constructive climate for investment, business and social entrepreneurship, and growth (Alvord et al. 2004; Mair and Martí 2006). However, the subsidiarity principle also emphasizes the limits of state governance and that the state cannot and, therefore, should not try to do everything. For instance, Nguyen and Flaaten (Vietnam) argue that "the state should concentrate on supporting the poor in small-scale inshore fisheries during a transitional period to improve the conditions of the ecological environment, the inshore fisheries resources, knowledge and infrastructure."

Bavinck and Jentoft (2008) have suggested that the subsidiarity principle should also be applied to fisheries resources distribution and technology; resources that are within the reach of small-scale fisheries should also be reserved for them. Such a principle, which is particularly pertinent from a poverty alleviation perspective, also invokes principles of justice, most importantly the so-called *difference principle* of John Rawls (1971). This principle is applicable to situations when it is fair to treat people differently, as with positive discrimination of those who are most vulnerable to poverty and who have been previously marginalized and excluded from access to natural resources, or from decision-making pertaining to their usage.

Thus, the difference principle could well be applied to fishing rights. Rights-based systems that are supported by fisheries managers and academics all over the world should therefore be subject to the litmus test: Do they benefit those in direst need? (cf. Jentoft 2007). The difference principle for small-scale fisheries leads to a *precautionary principle* that is sensitive to the social and cultural dimensions of people's livelihoods, as people are vulnerable and their communities have tipping points beyond which there is no point of return (Groenfelt 2003).

Governance principles such as those mentioned here are easier to proclaim than to implement and follow in practice. Partly, this is because they involve hard choices by policymakers. Principles, even when drawn from values that are generally shared, often meet resistance from those who have the most to lose. These people often also hold the most power and are therefore best positioned to influence those choices. As Collier (2007, p. 180) argues:

Reform in these countries has to come from within, and it takes courage. Vested interests can be relied upon to use their power, resources, and ingenuity to oppose change. Although the reformers have truth on their side, truth is just another special interest, and not a particularly powerful one.

Thus, policymakers and administrators are not always free to do what they want to do, and have to do if they follow these ideal principles. But there is hardly any other way to advance small-scale fisheries for the economy as a whole, and for those communities and people for whom this sector is key to their survival. What keeps policymakers from implementing agreed upon meta-principles is a question that begs for further research (cf. Pitcher et al. 2009).

Governments do have means at their disposal to make a better future for small-scale fisheries. And if they do not, they are in a position to acquire them. Not all policies targeting the poor are expensive, but require bold political leadership and resolve (Sachs 2005). Great economic inequities are not only unjust (see Chuenpagdee and Jentoft, Chap. 3), they are a waste of human capital, and are not sustainable. Political expediency is no excuse for inaction. Neither is lack of complete knowledge, as stated by the precautionary principle that countries accepted when they ratified the UN Convention on Biodiversity (www.cbd.int).

So, let us insist on what we will call *the urgency principle*. Given that (a) small-scale fisheries are vulnerable and may easily slip into poverty; (b) that small-scale fisheries are an important contributor to poverty alleviation around the world and can potentially play an even bigger role in feeding the poor; and (c) that small-scale fishing communities can be effective stewards of marine and coastal ecosystems if they are organized and supported for the task, then policies should not be developed only for the long-run. They must also be developed and implemented for the immediate future. The starting point of the chain of actions is "the poor themselves" (Sachs 2005, p. 242). People need to feed their families, bring their children to school, maintain their health, and must prevent their environment from further degradation, and thus cannot wait for policymakers to make up their minds. Poor people have had to learn to be patient, but they deserve initiatives that make a difference in their lives today.

Small-scale fishing communities and cultures are not as resilient as we often tend to believe, or not sufficiently resilient to withstand the new threats that they are now facing, such as climate change and globalization. It does not seem to matter whether they are located in lower or relatively more developed countries, whether they are poor in a relative or in an absolute sense. When people lack the entitlements and individual and collective capabilities they need to protect themselves, their livelihoods and communities are at risk. Without respect for human rights, which must include access rights to the fishery commons, small-scale fisheries are more vulnerable than they have to be. Due to the vagaries of nature and the forces of globalization, small-scale fisheries can never be stable and fully secure, but they have to be resilient and adaptive. They also need the power and the empowerment to be innovative and responsible. Only then can small-scale fisheries become the solution to poverty, rather than the problem.

20.13 Learning by Comparing

Kurien and Willmann (2009, p. 406) argue that it is "neither a legitimate nor a feasible proposition [to make] sweeping generalizations about the characteristics of small-scale fisheries." Globally, they are simply too diverse and complex to do so easily.

This volume confirms their view. The chapters covering 15 countries on 4 continents show a mosaic of situations that cannot be readily equated. What is real for small-scale fishing people on the Chittagong coast of Bangladesh is not identical to what those who live on the coast of Mozambique or the Yucatan coast of Mexico are experiencing. Although small-scale fishing in Nicaragua's Pearl Lagoon and in Guatemala's Amatique Bay occurs in multi-ethnic communities, the conditions are also different. The particular challenges they face are such that no single policy formula would work across the board. But, at a general level, the challenges that small-scale fisheries are confronted with are also remarkably similar.

The experience of being poor is not all that different from place to place. From the point of view of a poor individual, it does not matter so much whether he/she is poor in a relative or an absolute sense. Helping to improve the well-being of small-scale fishing people, while sustaining their natural environment, is a universal challenge. What has been said above about community development, empowerment and gender, the role of the state, and customary law applies everywhere. But it still requires policies and governance mechanisms that are sensitive to, while knowledgeable of, the particular situations on the ground.

Thus, even if sweeping generalizations are futile, there are lessons that can be learned from studying small-scale fisheries at the micro level, as illustrated in this volume, and comparing them with other detailed studies. While different, at a general level these case studies share many of the same characteristics. Regardless of country and place, small-scale fishers draw their livelihood from fresh water, marine, and coastal ecosystems that are susceptible to heavy exploitation. Also, small-scale fishers are exposed to risks from working on the water. They share the fact that they must struggle to survive in circumstances that make them vulnerable to natural and social forces beyond their control. They are often poor and powerless but, as the case studies in this volume show, they are not equally so. We have also seen examples of small-scale fishers who do not consider themselves poor, or who have worked themselves out of poverty into a situation that they feel is sufficient (cf. Chuenpagdee and Juntarashote, Chap. 14).

Small-scale fishing can therefore provide a good life. People in this sector do not have to be poor. They can also be made less vulnerable than they currently are. Many things can be done to increase their well-being, and their many similarities suggest that there is ample room for exchange of ideas about how to move smallscale fishing people out of poverty, and to reduce the chance that they might fall into it. Governments can pay more attention to small-scale fisheries, their economic potential, their environmental impact, and to their human dimensions. Governments should be more conscious of experiences elsewhere, and lessons do not need to come from affluent countries in the north. Comparing small-scale fisheries in the north and south is certainly worthwhile. They are not necessarily all that different. Absolute and relative poverty are often experienced in similar ways, and they often have parallel social and ecological impacts. But the learning process should not be unidirectional, from the north to south, as there are ways of addressing small-scale fisheries challenges in the south that have potential application in the north. Some of the problems that small-scale fisheries in the north are facing may already have found a solution in the south and may provide useful lessons, although we

always need to take the social, economic, political, and environmental context into consideration.

This also raises important research questions: When comparing how fisheriesdependent people cope in different social and ecological contexts, what determines how well they are, and how they contribute to poverty alleviation? What makes some communities more resilient than others? What role do institutions and social capital play in building such resilience? Some specific questions pertaining to fisheries cooperatives emerge from the case studies in Sri Lanka (Chap. 17) and Mexico (Chap. 10): What makes cooperatives unequally successful; their internal design or external contexts? Members of the PovFish research team are not short of ideas of what can be done to improve small-scale fisheries within the areas where they have carried out research. But they also have suggestions that are relevant elsewhere. These suggestions should not be taken as policy prescriptions or be accepted uncritically. Still, they should trigger curiosity, promote learning, and spur willingness to adopt new strategies.

References

- Alvord SH, Brown LD, Letts CW (2004) Social entrepreneurship and societal transformation. J Appl Behav Sci 40(3):260–282
- Armitage D, Berkes F, Doubleday N (2007) Adaptive co-management. Collaboration, learning, and multi-level governance. University of British Columbia Press, Vancouver
- Arndt HW (1983) The "trickle-down" myth. Econ Dev Cult Change 32(1):1-10
- Bavinck M, Jentoft S (2008) Imagining the future. Samudra 51:41-43
- Béné C, Hersoug B, Allison EH (2010) Not by rent alone: analysing the pro-poor functions of small-scale fisheries in developing countries. Dev Policy Rev 28(3):325–358
- Berkes F, Mahon R, McConney P, Pollnac R, Pomery R (2001) Managing small-scale fisheries. International Development Research Centre, Ottawa. http://web.idrc.ca/es//ev-9328-201-1-DO_ TOPIC.html
- Berlin I (1969) Four essays on liberty. Oxford University Press, London/New York
- Boulding KE (1977) Commons and community: the idea of a public. In: Hardin G, Baden J (eds) Managing the commons. W. H. Freeman and Company, San Francisco, pp 280–294
- Collier P (2007) The bottom billion. Why the poorest countries are failing and what can be done about it. Oxford University Press, Oxford
- Degnbol P, Gislasson H, Hanna SS, Jentoft S, Raakjær Nielsen J, Sverdrup-Jensen S, Wilson DC (2006) Painting the floor with a hammer: technical fixes in fisheries management. Mar Policy 30:534–543
- FAO (2008) Global conference on small-scale fisheries. Securing sustainable small-scale fisheries: bringing together responsible fisheries and social development. FAO Fisheries and Aquaculture Report, No. 911. Food and Agricultural Organization of the United Nations, Rome
- Graham M (1939) The sigmoid curve and the overfishing problem. Rapp P-v Réun Cons perm int Explor Mer 110(2):15–20. Reprinted in Thomasson ED (ed) The study of the sea. ICES 1981. Fishing News Books, Oxford
- Groenfelt D (2003) The future of indigenous values: cultural relativism in the face of economic development. Futures 35:917–929
- Hardin G (1968) The tragedy of the commons. Science 162:1243-1248
- Hardin G (1977) Living on a lifeboat. In: Hardin G, Baden J (eds) Managing the commons.W. H. Freeman and Company, San Francisco, pp 261–279

Hauck M (2008) Rethinking small-scale fisheries compliance. Mar Policy 32:635-642

- Hersoug B (2004) Exporting fish, importing institutions fisheries development in the Third World. In: Hersoug B, Jentoft S, Degnbol P (eds) Fisheries development. The institutional challenge. Eburon Publishers, Delft, pp 21–92
- Jentoft S (1986) Fisheries co-operatives; lessons drawn from international experiences. Can J Dev Stud VII(2):97–209
- Jentoft S (1989) Fisheries co-management: delegating government responsibility to fishermen's organization. Mar Policy 13(2):137–154
- Jentoft S (2007) The litmus test. Samudra 46:30-32
- Kooiman J (2008) Exploring the concept of governability. J Comp Policy Anal 10(2):171-190
- Kooiman J, Bavinck M, Jentoft S, Pullin R (eds) (2005) Fish for life. Interactive governance for fisheries. Amsterdam University Press, Amsterdam
- Krishna A (ed) (2008) Poverty, participation, and democracy. A global perspective. Cambridge University Press, Cambridge
- Krishna A (2010) One illness away. Why people become poor and how they escape poverty. Oxford University Press, Oxford
- Kurien J (1985) Technical assistance projects and socio-economic change: Norwegian intervention in Kerala's fisheries development. Econ Polit Wkly 20(25/26):A70–A88
- Kurien J, Willmann R (2009) Special considerations for small-scale fisheries management in developing countries. In: Cochrane KL, Garcia SM (eds) A fishery manager's guidebook. Wiley-Blackwell, Oxford, pp 404–424
- Mair J, Martí I (2006) Social entrepreneurship research: a source of explanation, prediction, and delight. J World Bus 41:36–44
- McCay BJ, Jentoft S (2010) Uncommon ground: critical perspectives on common property. In: Rosa EA, Diekmann A, Dietz T, Jaeger C (eds) Human footprints on the global environment. Threats to sustainability. MIT Press, Cambridge, pp 203–230
- Mehrotra S, Delamonica E (2007) Eliminating human poverty. Macroeconomic and social policies for equitable growth. ZED Books, London
- Narayan D, Chambers R, Shah MK, Petesch P (2000) Voices of the poor: crying out for change. Oxford University Press/The World Bank, New York
- Pitcher T, Kalikoski D, Pramod G, Short K (2009) Not honouring the code. Nature 475:658-659
- Rawls J (1971) A theory of justice. Oxford University Press, Oxford
- Robbins P (2000) The rotten institution: corruption in natural resource management. Polit Geogr 19:423–443
- Sachs JD (2005) The end of poverty. Economic possibilities for our time. Penguin Press, New York
- Scott JC (1985) Weapons of the weak: everyday forms of peasant resistance. Yale University Press, New Haven
- Sen A (2000) Development as freedom. Anchor Books, New York
- Sen A (2009) The idea of justice. Allen Lane, London
- Sumaila UR, Jacquet J (2008) When bad gets worse: corruption and fisheries. Working paper Sea around us project. http://www.southchinasea.org/docs/Corruption%20%26%20fisheries.pdf
- Tilly C (2007) Poverty and the politics of exclusion. In: Narayan D, Petesch P (eds) Moving out of poverty. Cross-disciplinary perspectives on mobility, vol 1. Palgrave Macmillan/The World Bank, Washington, D.C., pp 45–75