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GOVERNANCE OF TENURE IN SMALL-SCALE FISHERIES Key considerations GOUVERNANCE FONCIÈRE DANS LE SECTEUR DE LA PÊCHE ARTISANALE Considérations essentielles LA GOBERNANZA DE LA TENENCIA EN LAS PESQUERÍAS EN PEQUEÑA ESCALA Consideraciones esenciales

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GOVERNANCE OF TENURE IN SMALL-SCALE FISHERIES

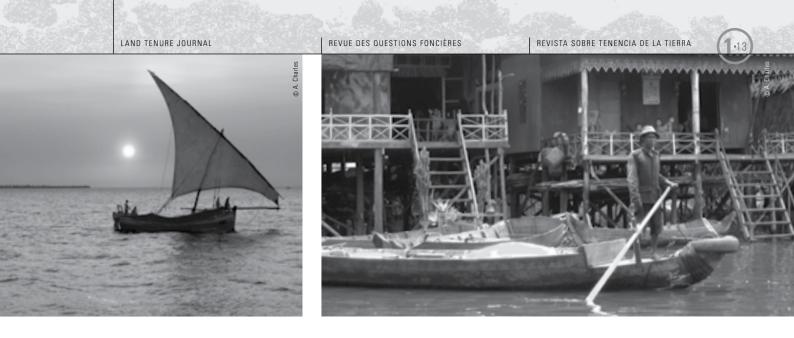
ABSTRACT	RÉSUMÉ	SUMARIO
FISHERIES GOVERNANCE	GOUVERNANCE DE LA PÊCHE	GOBERNANZA PESQUERA
ACCESS RIGHTS	DROITS D'ACCÈS	DERECHOS DE ACCESO
MANAGEMENT RIGHTS	DROITS DE GESTION	DERECHOS DE GESTIÓN
HUMAN RIGHTS	DROITS HUMAINS	DERECHOS HUMANOS

This paper examines the recognition, development and reinforcement of tenure systems in small-scale fisheries, and the conditions for those tenure systems to be effective and fair. Good governance of tenure requires that rights to access fishery resources (use rights) and rights to be involved in fishery decisionmaking (management rights) are linked to social, economic and human rights. This leads to a modern and more comprehensive view of rights-based fisheries governance, recognizing not only the need for rights, but also the need for attention to the details of those rights, to avoid negative impacts.

This paper explores (a) the links of fishery tenure systems to use rights,

Le présent document examine les systèmes fonciers du secteur de la pêche artisanale en termes de reconnaissance, de développement et de renforcement. Il se penche également sur les facteurs qui conditionnent l'efficacité et l'équité de ces systèmes fonciers. Une bonne gouvernance foncière suppose que les droits d'accès aux ressources halieutiques (droits d'utilisation) et les droits d'association aux décisions en matière de pêche (droits de gestion) puissent prendre en compte les droits sociaux, économiques et humains. Cette approche fait émerger une vision plus moderne et plus globale de la gouvernance foncière de la pêche dans la mesure où elle s'appuie

Estetestudio examina el reconocimiento, desarrollo v refuerzo de los sistemas de tenencia en las pesquerías en pequeña escala y las condiciones que garantizan que esos sistemas puedan funcionar de manera eficaz y justa. La buena gobernanza de la tenencia requiere que los derechos de acceso a los recursos pesqueros (derechos de uso) y los derechos de participación en las decisiones relativas a la pesca (derechos de gestión) estén vinculados a los derechos sociales, económicos y humanos. Esta ligazón conduce a una visión moderna y más exhaustiva de una gobernanza pesquera basada en los derechos, y al reconocimiento de que es menester prestar atención a las particularidades de esos derechos a



management rights and human rights; (b) the dynamics of tenure, including processes for determining who should hold the rights and recognition of pre-existing tenure arrangements; and (c) the roles of organizational capacity, legal space, and empowerment, together with the relationship of fishery tenure to the broader objectives of development policy, such as community well-being, food security and poverty alleviation. sur la reconnaissance des droits en vigueur et leur examen détaillé pour prévenir toute forme de dysfonctionnement.

Ce document explore: (a) la prise en compte des droits d'usage, des droits de gestion et des droits humains par les système fonciers de la pêche; (b) les dynamiques foncières et notamment les processus d'attribution des droits et la prise en compte des arrangements fonciers antérieurs; et (c) la capacité organisationnelle et juridique nécessaire pour intégrer les droits fonciers de la pêche au sein d'objectifs plus généraux de politiques de développement comme le bien-être des communautés, la sécurité alimentaire et la lutte contre la pauvreté.

fin de evitar consecuencias adversas.

En el estudio se investigan a) las vinculaciones de los sistemas de tenencia pesquera a los derechos de uso, a los derechos de gestión y a los derechos humanos; b) la dinámica de la tenencia, incluidos los procedimientos para determinar sobre quién debería recaer la titularidad de los derechos, y el reconocimiento de la validez de los acuerdos de tenencia preexistentes; y c) las funciones de las instancias organizativas, del ordenamiento jurídico y del empoderamiento, además de la relación entre tenencia pesquera y los objetivos más amplios de la política de desarrollo, tales como el bienestar comunitario, la seguridad alimentaria y el alivio de la pobreza.



## INTRODUCTION

Tenure has been defined as '... the relationship among people with respect to land and other natural resources. The rules of tenure determine which resources can be used by whom, how long for and under which conditions.' (FAO, 2011). In the fishery sector, issues of tenure closely relate to the muchreferenced shift in fishery thinking over the past century or so, from a 'freedom of the seas' mentality of open access with no limits on fishery access and use, to a recognition of the fundamental limitations inherent in fish stocks. This point lies at the heart of the emergence of abundant literature in recent decades on the importance of well-defined 'rights' in fisheries – both use rights that specify and limit resource access, and management rights that specify who is to be involved in decision-making.

This paper focuses primarily on considerations relating to recognizing, reinforcing or developing tenure systems in small-scale fisheries, and creating the right conditions for flourishing tenure systems that are effective and fair. The paper relates tenure to the many forms of rights currently under discussion in fisheries, and explores key factors in recognizing and/or designing tenure systems. The goal is to provide insights relevant to the governance of tenure, with governance referring to 'the full range of public and private interactions taken to solve societal problems and create societal opportunities' through dynamic institutions and processes (McConney and Charles, 2009).

Two major considerations underlie the analysis of tenure systems in this paper:

1. Fishery governance requires context-sensitive perspectives on tenure in small-scale fisheries, *rooted in values* and *compatible with local objectives*. This contrasts with the promotion over the past few decades of one-size-fits-all versions of 'rights-based management', which led to inappropriate policy measures. A key message is that the wrong tenure system may be harmful to the well-being of small-scale fishers and communities. The focus is on recognizing, reinforcing or developing tenure systems, and creating the right conditions for flourishing tenure systems that are effective and fair

The wrong tenure system may be harmful to the well-being of small-scale fishers and communities 2. With tenure having both positive and negative potential, there is a need to be concerned about *process* in terms of how tenure is implemented, and the good governance arrangements in place for decision-making. It is important to understand the objectives being pursued, and to ask fundamental questions: Tenure for what ends? Tenure for whom? The process of building, reinforcing and adjusting tenure systems, and particularly how the rights are handled, makes a critical difference to the broader issues of community well-being, poverty alleviation, socioeconomic success and system resilience.

In addition, it is important to recognize that the governance of tenure relates to the use and management of resources, but not to the ownership of those resources *per se*, i.e. who owns the fish in the sea. Furthermore, the *responsibilities* that accompany rights and tenure, as identified in FAO's Code of Conduct for Responsible Fisheries (FAO, 1995), must also be recognized. These and other factors described in this paper are some of the nuances to be taken into account in evaluating tenure systems.

The paper begins with three sections that review the relationship between tenure and the major forms of rights. Two of these forms fall under the category 'fishery rights' (use rights and management rights), while the other is the broad category 'human rights', including social and economic rights. Following that is a section focusing on the dynamics of tenure and underlying processes, relating to the recognition of existing tenure systems and the design of new systems. The final sections survey important success factors in the governance of tenure, and offer a number of closing conclusions.

The paper draws extensively on two key sources:

- a. the Code of Conduct for Responsible Fisheries (FAO, 1995) and related technical guidelines
- b. the Global Conference on Small-Scale Fisheries (FAO, 2008) and the related 'Bangkok Statement' (Civil Society Preparatory Workshop, 2008).

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## **TENURE AND FISHERY USE RIGHTS**

Fishery tenure is closely related to the idea of use rights (Charles, 2001, 2002, 2009) – 'the right to use' fishery resources, as recognised or assigned by the relevant management authority, whether formal or informal. Indeed, tenure through use rights is referenced in the Code of Conduct Article 6.18 (FAO, 2005, Paragraph 2.7.6):

'When designing management measures, it might be appropriate to consider those which provide exclusive or preferential access for smallscale fisheries.'

Furthermore, the Code of Conduct (FAO, 1995, Article 10.1.3) states:

'States should develop, as appropriate, institutional and legal frameworks in order to determine the possible uses of coastal resources and to govern access to them taking into account the rights of coastal fishing communities ...'

Tenure systems, and corresponding use rights, address two key objectives:

- ⇒ From a sustainability perspective, tenure systems limit the use of fisheries (and other natural resources), thereby avoiding or eliminating the hazards of open access. Experience with fisheries worldwide demonstrates that a limited resource exploited in an unlimited manner is incompatible with long-term sustainability. On the other hand, when fishers and fishing communities have suitable tenure arrangements, including fishing rights that are both 'secure' and justly distributed, this is seen as a key means to ensure sustainability. Specifically, the geographical bond between a fishing community and its local fishing grounds, combined with the security that comes from clear rights over access to fishery resources, are the ingredients for good fishery stewardship.
- → This relates closely to the second perspective on tenure, namely its role in addressing the major concern of small-scale fishing communities: access to the resources they need for their livelihood and food security. Effective tenure systems may enhance economic efficiency and social stability, as well as processes of fishery governance.

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Suitable tenure arrangements, including fishing rights that are both secure and justly distributed, are key to sustainability

Effective tenure systems may enhance economic efficiency and social stability, as well as processes of fishery governance In small-scale fisheries, use rights within tenure systems may arise in a number of ways. First, they may be held at a variety of organizational levels, depending on the fishery objectives: by individuals, by geographical communities or regions, or by specific groupings such as the fishing vessel sector or the gear sector. Second, use rights may focus solely on the core goal of restricting who can have access to the fishery (access rights), or may go further to specify what locations fishery participants may use for their fishing (spatial or territorial rights). Other possibilities include the rights of each fishery participant to specific levels of fishing effort (effort rights) or of catch (catch rights). However, these are relatively uncommon in smallscale fisheries due to their high data needs and monitoring requirements. Whatever the specific form of use rights, it is important that these are not misinterpreted as implying ownership of the fish resource itself – the right to access the fishery does not equate to 'owning' fish swimming in the sea.

Access rights, whether specified through informal means or formal licenses, are crucial in small-scale fisheries, and are the focus of attention for fisherfolk organizations in the *Bangkok Statement* to the Global Conference on Small-Scale Fisheries (Civil Society Preparatory Workshop, 2008). The Statement highlights the need for tenure systems that:

'Guarantee access rights of small-scale and indigenous fishing communities to territories, lands and waters on which they have traditionally depended for their life and livelihoods.'

... and that specifically:

'Protect access of women of fishing communities to fish resources ...'

If the access rights within a tenure system are managed well, they can reflect a desired balance of social, cultural, economic and environmental goals, assist in reducing conflict, enhance food security and livelihoods for small-scale fishers and fishing communities, and facilitate the protection of local ecosystems, notably if rights-holders support or initiate conservation actions. Furthermore, as noted by FAO (2005), strategic decisions about access rights may be important, since '*Promoting the small-scale over the industrial sub-sector may bring efficiency gains for the fisheries as a whole in addition to social benefits for the small-scale subsector.*'

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The benefits of tenure systems for fishers and communities, notably in specifying access and use rights, has fostered the emergence of such arrangements in a wide range of locations around the world. The development of use rights systems has been documented, for example, across the Pacific Islands – see Johannes (2002), Ruddle (1989) and Veitayaki (1998). For further discussion of this, see Dyer and McGoodwin (1994) and Hanna *et al.* (1996). Meanwhile Béné *et al.* (2010) have suggested that the dynamic emergence of rights systems is a general reality, and that '...access to fisheries (in particular, small-scale coastal or inland fisheries) is always conditioned by some form of formal or informal, symbolic or substantial, control systems generally established at the local/community leve!.

A specific form of tenure and access rights system with a long history in small-scale/artisanal and indigenous fisheries worldwide is that of spatial or territorial rights, notably Territorial Use Rights in Fishing (TURFs) and Customary Marine Tenure (Christy, 1982). These involve rights assigned to individuals and/or groups to fish in certain locations, often on the basis of long-time use ('customary tenure'). They can provide an efficient, effective means of fishery management – see, for example, Acheson (1975), Johannes (1978) and Ruddle *et al.* (1992). An important example of this is in the fisheries of Oceania, where durable CMT/TURF systems developed over time, but declined in the face of fishery 'modernization' that imposed new regimes without understanding the effectiveness of those already in place. In recent years, there has been increasing recognition of the efficiency of the CMT/TURF systems, and initiatives have been put in place to restore and reinforce them.

Despite the potential benefits of tenure arrangements and use rights, the processes used to implement and/or reinforce them must be designed with care. There are significant issues to be addressed in tenure systems with respect to how one restricts fishery access.

First, the nature of a tenure system will depend on the attributes of the corresponding use rights, including:

- → Security the degree of assurance, whether moral, legal, physical or by other means, that one's tenure is protected from encroachment by others
- → exclusivity the ability to exclude others from infringing on the right, i.e. enforceability of the relevant use rights

Territorial Use Rights in Fishing and Customary Marine Tenure have a long history in small-scale fisheries worldwide

- $\rightarrow$  durability the degree of longevity in the tenure arrangement
- → transferability whether one is able to temporarily or permanently transfer one's use rights to other fishery participants.

The nature and extent of these attributes will vary from fishery to fishery. Given that each may have both positive and negative implications, the choices in this regard need careful consideration. Most notably, the concept of security – that is, 'secure' tenure, in which those holding use rights have security in knowing the rights will not be altered – is widely viewed as a positive attribute. Indeed, it is important to fishers and fishing communities in ensuring longterm resource access and compatibility with societal values. However, 'secure' tenure is not necessarily a positive attribute: it may be counterproductive in situations where the fishery becomes locked into an undesirable state, such as one reflecting an inappropriate distribution of resource access. Similarly, exclusivity is positive if it protects small-scale fishers and communities from 'invasions' of their fishing grounds by outsiders. However, exclusivity might be considered undesirable in other circumstances: for example, if it maintains an elite in control of the fishery. (The question of the desirable degree of transferability, and of durability, will be considered later in the paper.)

Second, the dominance of an industrialized fishery perspective in international fishery discourse has led to too much attention being paid to the creation of *new* use rights arrangements. In small-scale fisheries, evidence in much of the world shows that tenure systems have often developed naturally over time, and many are still in place, as noted for CMT and TURFs above. Recognizing and reinforcing those existing systems – and where needed augmenting them with elements of new rights-based approaches – may be the most cost-effective path to ensure effective use rights. It may also avoid the creation of conflict between culturally appropriate practices already in place and newly imposed rights schemes.

Third, it is crucial to assess the implications of the alternative mechanisms for allocating use rights within tenure systems. One option heavily promoted is a reliance on market forces, notably market-based catch rights such as individual transferable quotas (ITQs). However, in small-scale fisheries, this is now recognized as typically inappropriate, on account of: In small-scale fisheries, tenure systems have often developed naturally over time, and many are still in place

- → high data and monitoring requirements
- → negative impacts on economic efficiency at the scale of the fishery system
- → a lack of fit with the social values that are crucial in such fisheries (Panayotou, 1982, p.43)
- → serious negative consequences on the resilience and sustainability of fishers and coastal communities, as use rights invariably become concentrated in fewer hands (Copes and Charles, 2004).

This final outcome relates to the point about 'secure' tenure above, in that those remaining in the fishery following the buying and selling of tenure rights may have 'secure' rights, but that outcome in itself is not a positive one.

Indeed, equity considerations are critically important in tenure systems, as are the impacts on the poverty and the vulnerability of households and communities (Béné *et al.*, 2010). The tenure processes and access restrictions put in place must be carefully considered and evaluated, because problems can arise with too *little* access as well as with too much. In this regard, the market option contrasts with another commonly advocated mechanism: community-based or collective approaches to tenure. While it is true to say that both approaches involve equity and power issues, the community-based approach seems to have a better record in small-scale fisheries, for example in distributing livelihood security more widely.

# **TENURE AND FISHERY MANAGEMENT RIGHTS**

While tenure systems are often seen as focused on access to resources, together with the duration and conditions of resource use, there is another important component to tenure, namely matters of decision-making and control over the resources. Thus a tenure system may specify who has the right to be involved in fishery management decision-making – i.e. through *management rights*. Often, the state has the responsibility for management, but may seek to involve others in the process – the issue is one of who is *or should be* involved in fishery management, whether alongside government or delegated by government. The processes needed to implement and/or

Equity considerations are critically important in tenure systems

A tenure system may specify who has the right to be involved in fishery management decision-making – i.e. through management rights reinforce management rights can draw on important insights related to collective action, and notably how governance institutions develop (Ostrom, 1990, 1995).

A number of situations across the world have demonstrated that, while access rights are undoubtedly crucial for the well-being of small-scale fishers, this must be accompanied by suitably-distributed management rights, given that success in fishery conservation and management requires the support and participation of fishery stakeholders. Accordingly, management rights are referred to in the Code of Conduct's call to '... facilitate consultation and the effective participation of industry, fishworkers, environmental and other interested organizations in decision-making with respect to the development of laws and policies related to fisheries management ...' (Paragraph 6.13). This leads to the approach of co-management, through the joint development of management measures by fishers, government and possibly local communities (Berkes *et al.* (2001), Pinkerton (1989), Pomeroy (2001) and Wilson *et al.* (2003). As FAO (2005) notes, 'Co-management is also expected to promote improvements in public accountability and to foster empowerment of poor and vulnerable groups'.

Who exactly should hold management rights over fishery decisionmaking is a key question to be considered in the governance of tenure. The above discussion highlights that fishers should be among the rights-holders, particularly at the *operational* level of management. At the *strategic* level, debates over the fishery's overall objectives and policy directions are typically matters of public interest, so wider participation may be desired – e.g., with non-governmental organisations and fishing communities as legitimate interested parties, in addition to the fishers. For example, legislation in the Philippines places management rights over coastal 'municipal fisheries' (notably small-scale community-based fisheries) clearly with local municipalities.

In the context of small-scale fisheries, there are many cases in which the fishing activity essentially takes place at a local community scale, replicated across all the communities in a coastal area. For example, fishers in Zanzibar leave from their community to go fishing and return to the same location, bringing their catch to the local village market for sale. In such situations, an important option to consider is that of community-based fisheries

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management, in which management rights are assigned on a community basis and the tenure system also operates on a community basis. Rights are assigned either to the set of fishers in a community or to the community itself. In this 'place-based' approach, fisherfolk, and potentially others within a coastal community or coastal region, participate in local fishery management decision-making.

Such community management rights, while not suitable to every fishery, may be especially feasible in '*small-scale fisheries in which the community of users is relatively homogeneous and the group size relatively small* (Berkes, 1986, p.228). To be effective, they typically require both a geographical clarity and a cohesiveness of the community involvement. They also require local experience in and capacity for management, and an institutional framework specifying rights – whether through legislation, government decisions, customary/informal arrangements, or a combination of these (Charles, 2011). The rationale for these community-based rights systems is two-fold:

- a. They have the capability under the right circumstances to draw on local institutions, as well as moral pressure, to create incentives for resource stewardship, which in turn can increase management efficiency.
- b. They can support equity and fairness goals by taking into account a broader range of fishery participants within a community, including boat owners, crew members and shore workers (Graham *et al.*, 2006).

While community tenure arrangements are working successfully in many locations and have potential applicability more broadly, there are other cases in which either the conditions needed for this approach are absent locally, or the larger spatial scale of the fishery is such that community rights are not feasible. In either of these cases management rights need to be dealt with on a larger scale, and it is important that small-scale fishers have the organizational capability, as well as the internal capacity and external support, to engage in fishery-wide (or region-wide) decision-making. It is also important that the tenure system and its management rights arrangements are considered appropriate by the fishery participants, even when the arrangements are implemented on a large spatial scale. In other words, the benefits described above for a community rights system – in terms of the desired institutions, incentives and cultural compatibility – must be scaled up to be present in the larger tenure system.

#### **TENURE AND HUMAN RIGHTS**

In one of its few explicit references to small-scale fisheries, the Code of Conduct for Responsible Fisheries (FAO, 1995; Article 6.18) states:

'Recognizing the important contributions of artisanal and small-scale fisheries to employment, income and food security, States should appropriately protect the rights of fishers and fishworkers, particularly those engaged in subsistence, small-scale and artisanal fisheries, to a secure and just livelihood, as well as preferential access, where appropriate, to traditional fishing grounds and resources ...'

This statement encompasses two specific kinds of rights for small-scale fishers – the right 'to a secure and just livelihood' and the right to 'preferential access, where appropriate, to traditional fishing grounds and resources' (FAO, 1995; Article 6.18). While the second of these fits within the usual sense of use rights in fisheries, the first relates to human, social and economic rights. Until recently, human rights (cf. Universal Declaration of Human Rights – United Nations 1948) have rarely been considered in fishery policy debates, but this is changing within legal and policy circles. Today, debates concerning governance in tenure systems, and specifically fishery rights, are seen as best discussed alongside human rights, particularly in small-scale fisheries (FAO, 2007; Civil Society Preparatory Workshop, 2008). Furthermore, the details of implementing this linkage are being actively explored in academic circles, such as a special issue of the journal, Maritime Studies (MAST) (Allison *et al.*, 2011).

This reflects a recognition of two realities. First, in a small-scale fishery setting fishery rights can affect human rights, impacting on the well-being and security of fishers and fishing communities with effects that may be positive – given suitable recognition, design and implementation of rights – or negative (Charles, 2001; Béné, 2003; Béné *et al.*, 2010). Second, the pursuit of human rights can alter how fishery rights are designed and implemented, such as decisions concerning who should hold those rights, and how they should be managed (Charles, 2008, 2009). An example could be the reinforcing of existing tenure systems in small-scale fisheries, as noted earlier. This recognizes the connection of fisheries to the well-being of fishing communities, and as

Governance in tenure systems, and specifically fishery rights, are seen as best discussed alongside human rights, particularly in small-scale fisheries



such relates to the linking of fishery rights with human, social and economic rights. (This will be discussed further in this paper, in the following section on the dynamic aspects of tenure systems.)

The *Bangkok Statement* (Civil Society Preparatory Workshop, 2008) defined a human rights approach for fisheries. The approach includes the rights of fishing communities (ICSF-WFFP, 2009, p.3) to:

- a. 'their cultural identities, dignity and traditional rights, and to recognition of their traditional and indigenous knowledge systems'
- b. 'territories, lands and waters on which they have traditionally depended for their life and livelihoods'
- c. 'use, restore, protect and manage local aquatic and coastal ecosystems'
- d. 'participate in fisheries and coastal management decision-making'
- e. 'basic services such as safe drinking water, education, sanitation, health and HIV/AIDS prevention and treatment services'
- f. of all fish workers 'to social security and safe and decent working and living conditions'.

Linking tenure and human rights considerations is important in particular to addressing the challenge of livelihoods and poverty in fishing communities (Béné et al., 2007). FAO (2007, p.6) indicates that 'A rights-based approach, in defining and allocating rights to fish, would also address the broader human rights of fishers to an adequate livelihood and would therefore include poverty-reduction criteria as a key component of decisions over equitable allocation of rights.' This is compatible with international efforts to link fishery reform to achievement of the Millennium Development Goals (United Nations, 2000); these goals have contributed to the increasing attention being paid to human rights, poverty alleviation, food security and food sovereignty globally. Indeed, there are important links to sustainable livelihoods approaches in small-scale fisheries (Allison and Horemans, 2006). Fundamentally, as stated by FAO (2007), 'Adopting a rights framework also reminds fishery managers, community leaders, fish consumers and donors that small-scale fishers have a right to development, and that governments are accountable for helping them realise that right.' To this end, the Bangkok Statement calls on nations to 'Guarantee the rights of all categories of workers in the fisheries, including

Linking tenure and human rights considerations is important in particular to addressing the challenge of livelihoods and poverty in fishing communities self-employed workers and workers in the informal sector, to social security and safe and decent working conditions!

Finally, it is important to note that recognizing the links between fishing rights and human rights is not at all equivalent to suggesting that fishing 'is a human right'. Taken literally, the latter would have disastrous consequences for fish stocks and small-scale fishers, as it may be interpreted (given that human rights are 'universal') as advocating 'universal' access to fisheries, and thus unlimited exploitation. This would lead to serious fish stock depletion and a consequent inability to meet food security, poverty alleviation and other development objectives. To put this another way, the links between fishing rights and human rights also need to take future generations into consideration. As Allison et al. (2011) indicate, 'As well as defining rights to fish, the rights of present and future generations to benefit from the resources should be included! Accordingly, adding a human rights dimension to discussions of tenure systems should be seen not as replacing or interfering with fishery governance, but rather as providing guidance for decision-making. Thus, among the range of choices that might be made in terms of fishery tenure, we should prefer those that are both compatible with long-term sustainability and superior from a human rights perspective; we should also specifically reject those that are contrary to basic human rights (for example, those that involve unreasonable working conditions).

### THE DYNAMICS OF TENURE SYSTEMS

Fishery tenure systems are as much about process as structure. The dynamics of how a tenure system is established, and how it adjusts and adapts over time, is a crucial factor influencing its ultimate success, just as are the details of its structure and operation, and its interaction with the various fishery and human rights discussed above. In this section we focus on the processes of change that take place in creating new tenure systems, as well as the processes that also change existing tenure systems, albeit more slowly.

#### Dynamics of existing tenure systems

As noted earlier, many tenure systems have developed in small-scale fisheries worldwide and these typically have their own complex dynamics. These tenure systems respond to changes in the systems themselves, and/ or in their environment, and/or in the goals being pursued in the fishery. As these dynamics work on the system, the key to long-term success may well be to ensure that policy measures accept and reinforce the tenure system. This implies that the system remains acceptable to stakeholders, is suitably effective in meeting the current objectives in the fishery, and encompasses criteria such as equity and sustainability. The *Bangkok Statement* notes the need to '*Ensure the integration of traditional and indigenous knowledge and customary law in fisheries management decision-making*' and to '*Protect the cultural identities, dignity* and *traditional rights of fishing communities and indigenous peoples*'.

On the other hand, if the tenure system is for some reason unsustainable or unsuitable, more fundamental change within it may be needed. Consider, for example, the degree of equity and fairness in an existing tenure system. What if the set of use rights represented by the status quo is seen as inappropriate in the context of the community's or society's priorities and policy directions? In South Africa, for example, national policy goals drove use rights decisions in the fishery sector, as the transformation from apartheid to democracy meant that broadening the basic right of *access* to the fishery was a matter of urgency (Cochrane and Payne, 1998). The allocation of use rights under apartheid did not pass the test of equity and fairness, and concerns over the distribution of fishery access remain even today. Thus, in the case of South Africa, a major policy issue relates to which parties in the fishery should receive priority within tenure arrangements. In that country, and more generally, fishery policy directions need to provide guidance on how change should take place in the tenure system.

Therefore, there is a balance needed between the recognition of existing tenure systems and the ability to adapt such systems over time. The key here is to ensure that the system is compatible with community and societal values. In some circumstances, this may imply reinforcing an existing system, in other cases adapting it to new circumstances, and in still other situations, inventing a new system. The process required must be carefully considered. First, there is the question of who is empowered to make decisions about changes in the tenure system. Should this be at governmental level or at community level? Second, how do power imbalances – among participants and over time – affect the outcomes, and the long-term acceptability of the system? Inter-temporal issues arise here, in that decisions involving tenure can affect not only current fishers but potential future participants as well, so that participation in discussions of tenure and use rights may need to go beyond just the current fishers.

### Processes for designing and implementing tenure systems

While many small-scale fisheries already have tenure systems in place, there are situations in which no use rights arrangements exist, or current rights are seen as ineffective or unacceptable. In such cases, a process will be needed through which a suitable tenure system can be designed and implemented to meet the set of goals in place. This can be a complex process requiring a mixture of regulation, informal or traditional arrangements, and institutional development. The process will need to recognize that what is 'best' will depend on the specific situation given that various choices are available, each with its own advantages and limitations: no single approach will be applicable everywhere. As Nomura (2006, p.25) notes, '...fisheries policies, management approaches—and fishing rights—need to be tailored to the specific context of countries and localities with respect to the fisheries in question, the social setting, culture, etc'.

In designing a tenure system, factors to take into account will include:

- a. societal objectives
- b. relevant history and traditions
- c. relevant social, cultural and economic environment
- d. key features of the fish stocks and the ecosystem
- e. financial and personnel capacity of the particular fishery (Charles, 2002).

While there are no clear rules concerning which approach is most compatible with which fishery, practical experience provides some tentative guidance. For example, sedentary fishery resources seem to be especially Decisions involving tenure can affect not only current fishers but potential future participants as well



amenable to the use of territorial rights (TURFs). Meanwhile, fishing effortbased rights may be preferable to harvest rights (quotas) if biomass estimates are unavailable or unreliable, or if catch monitoring is too expensive, as is the case in most small-scale fisheries. In any given case, the importance of the fishery characteristics must be weighed up in assessing tenure options.

The process by which allocation of tenure rights takes place is critical, and interacts with decisions about who can hold the rights - notably whether rights may be held by individual fishers or in a collective manner by a community, or a fishers' association. Notably, tenure rights held collectively by communities, fishing sectors or other identifiable groups can create the incentive to establish local institutions to manage the rights, thereby bringing people in a community or group together as resource stewards. This can also be more easily and dynamically adjusted to suit specific local situations and to reflect community values and objectives (Willmann, 2000; Charles, 2001). These community-based rights have a lengthy history in many small-scale fisheries (Charles, 2006; Kurien, 2000, 2007), as in the case of exclusive artisanal fishing zones, implemented through policy measures and/ or legislation (Sharma, 2008). Furthermore, the Code of Conduct technical guidelines argue that community rights are particularly suitable to 'propoor' policies for small-scale fisheries. As noted by FAO (2005), 'The concept of community property rights is therefore particularly attractive from a poverty alleviation perspective'. At the same time, it is important to ensure that possible imbalances in power within the community do not lead to inequitable results in the allocation of rights.

The dynamics of tenure are affected greatly by decisions about transferability of tenure, i.e. whether the rights can be transferred to others. The process could involve permanent transfers (e.g. by selling the rights, or handing them down in a family from one generation to the next), or temporary transfers (e.g. from one fisher to another within a fishing season). The choices can have large impacts on small-scale fisheries and fishing communities. Temporary transferability within a fishing season can be important in providing short-term flexibility while maintaining long-term stability in distributing the rights. On the other hand, for permanent transfers, local cultural and institutional factors must be considered. For example, transferability may be Tenure rights held collectively by communities, fishing sectors or other identifiable groups can create the incentive to establish local institutions to manage the rights considered reasonable within households or even families, but not through the use of market mechanisms (buying and selling rights). The dynamics of tenure in the latter case tends to lead to the concentration of control over rights, a shift of these rights out of small communities, and consequent negative effects on rural livelihoods, on community stability and sustainability, and on equity in the coastal economy (Copes and Charles, 2004).

# INTERNAL AND EXTERNAL CONSIDERATIONS IN THE GOVERNANCE OF TENURE

The preceding discussion suggests a set of multiple ingredients of 'success' for fishery tenure systems: achievement of broadly-defined sustainability in the fishery, widespread acceptance of the system, processes that are considered fair, and a reasonable level of effectiveness in the system's functioning. A variety of considerations have been examined in this paper from the perspective of tenure design and dynamics, that suggest the extent to which the ingredients for sustainability and fairness are present in a given tenure system. This section continues the assessment of tenure systems by looking beyond the structural and dynamic aspects of tenure itself to consider additional factors. These factors relate to enabling conditions internal to the fishery, and the interactions of tenure systems with the realities of coastal communities and broad policy measures.

### Internal enabling conditions

Effective governance of tenure in small-scale fisheries will require accompanying efforts to ensure that the enabling conditions are in place, so that fishery participants can properly take part in and benefit from the tenure system. These conditions include empowerment and provision of the 'legal space' (notably through legislation and clear policy) so that fisher organizations and fishing communities are able to manage access rights and take on other management responsibilities (Charles *et al.*, 2010). Related to this is the need for efforts to support and build the capacity of fisher organizations and community institutions.

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FAO (2005) notes that participation in management needs to cover the spectrum from the harvesting process to higher levels of decision-making, and in particular that '...small-scale fishers and fishworkers must be included in the process of developing legislation ...'. If the focus is on 'pro-poor' approaches, empowerment must go beyond policy and legislation to include participatory processes implemented at the community level. FAO (2005) cautions that since communities 'are usually stratified by wealth and power, with local elites and decentralized governments sometimes colluding to exclude the less powerful ... fisheries development programmes should examine ways in which 'traditional' leadership, local government and civil society can work together to ensure that the interests of poorer and marginalized groups are taken into account in decentralized resource management.'

Good governance also implies suitable attention to a wide range of capacity and institutional development. FAO (2005) calls for measures to 'enhance the capacity in organizations representing and working for small-scale fisheries – e.g. those concerned with technical fisheries management issues, social welfare, credit/savings and marketing, and political negotiation or lobbying.' Capacity building and institutional development are needed: not only on the part of fisher and community organizations, but also by governments. In particular, government staff and institutional arrangements must consider the needs and rights of small-scale fishers and communities, so that processes are in place to support their participation.

## **Connections beyond fishery boundaries**

In small-scale fisheries, tenure arrangements are likely to be affected by, and have impacts on, realities beyond the fishery – notably the well-being of fishing communities, and a range of broader policy and legal frameworks (De Young *et al.*, 2008). For example, Allison *et al.* (2010) note that beyond-fishery needs include: 'value-addition in the supply chain, infrastructure, market cooperatives, and access to credit' and 'addressing deficiencies in fishing people's rights of equitable access to health care, education, and community services'.

Furthermore, as noted in the Code of Conduct technical guidelines (FAO, 2005), it is necessary for fishery governance to deal with '(*i*) cross-sectoral policies at the national level, (*ii*) policies in other sectors, and (*iii*) local policies – all of which can impact on small-scale fisheries'. Similarly, the Code of Conduct's Article 10.1.2 specifically refers to fisher participation in broader decision-making, noting: 'States should ensure that representatives of the fisheries sector and fishing communities are consulted in the decision-making processes and involved in other activities related to coastal area management planning and development'. This suggests that the discussion earlier in the paper about the relationship between tenure and management rights needs to be expanded to consider tenure over coastal areas – not only fishery resources – and a role for fishers and fishing communities in exercising management rights relating to the coastal zone.

Tenure arrangements can also strongly affect the interaction of small-scale fisheries with food security and livelihoods (Schumann and Macinko, 2007), which in turn relate closely to human rights considerations. The importance of small-scale fisheries to food sovereignty is reflected in the Code of Conduct's Article 11.2.15 (FAO, 1995), which, in addressing international fish trade and export production, notes that 'States, aid agencies, multilateral development banks and other relevant international organizations should ensure that their policies and practices ... do not result in environmental degradation or adversely impact the nutritional rights and needs of people for whom fish is critical to their health and well-being.' In connecting small-scale fisheries with goals of food sovereignty and community well-being, Allison et al. (2010) recommend that authorities 'Integrate responsible fisheries policies with wider poverty reduction policies in countries where fisheries are economically important.' A key element in this is the development of livelihood diversification options: if those lacking fishery use rights are enabled to pursue other livelihoods, these new options can reduce the negative impact of restrictions on fishery access that are inherent in a tenure system.

The relationship between tenure and management rights needs to be expanded to consider tenure over coastal areas – not only fishery resources – and a role for fishers and fishing communities in exercising management rights relating to the coastal zone



## CONCLUSION

The governance of tenure in small-scale fisheries requires the right ingredients and the right processes. There is a need for a modern view of 'rights-based fishery governance' that looks at tenure in an integrated manner – connecting rights to access fishery resources (use rights), rights to manage the fishery (as in co-management), and underlying social, economic and human rights. Developing the processes to support and implement corresponding tenure systems requires a more nuanced approach to rights-based thinking in fisheries – as crucial a move for governance today as was the shift away from a universal assumption of the Tragedy of the Commons over the past couple of decades.

The new thinking recognizes that in small-scale fisheries, it is important that tenure systems provide security for the rights-holders and a greater incentive to take care of the resource into the future, while also providing more comprehensive and more just arrangements that seek to avoid negative impacts. The latter implies the need for attention to the various success factors described in the paper, including achievement of fishery sustainability, widespread acceptance of the tenure system, processes considered fair and effective, provision of legal space and empowerment, organizational capacity and institutional development, and positive accomplishments beyond fishery boundaries (e.g., in terms of food sovereignty, community well-being and livelihood diversification). Three specific areas requiring attention are:

- who holds the rights and particularly the potential of collective or community rights, which often work particularly well in small-scale fisheries
- whether there are pre-existing tenure arrangements which in most cases should likely be reinforced for the sake of efficiency, equity and good governance
- how fishing rights connect with other rights since there can be significant impacts on social, economic and human rights, and specifically on related goals such as community well-being, food security and poverty alleviation.

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From a small-scale fishery perspective, this calls for government support in protecting and/or enhancing the tenure arrangements of fisherfolk. For example, larger-scale fishing enterprises may exploit the same fish stocks as small-scale fishers, and may threaten (whether deliberately or indirectly) to take over increasing proportions of the fishing space or fishery activity, i.e. to shift the tenure arrangements in their direction. In such situations, while small-scale fisherfolk may be keen to hold both secure access rights and meaningful management rights, they may also see an important role for government in the governance of tenure, particularly in mediating fishery tenure debates.

Accordingly, while the role of 'good governance' with respect to fishery tenure may relate to local management of tenure within a small-scale fishing community, its processes also include a role for governments in creating the policy environment and policy space for effective *and* fair tenure arrangements to succeed. As pre-existing tenure systems change over time, and as systems of tenure are put in place where they do not currently exist (or where what

There is a role for governments in creating the policy environment and policy space for effective *and* fair tenure arrangements to succeed



does exist is widely considered ineffective or unacceptable), attention must be paid to combining fishery rights and human rights, in a manner appropriate to the cultural and historical situation, the policy directions, and the capacities of the particular fishery. More broadly, attention must also be paid to how tenure and fishery rights relate to the overall objectives of development policy, applying a broad perspective that must include post-harvest aspects, and should look beyond the fishery 'silo' in addressing rights.

Finally, thinking on tenure arrangements must be connected with that on the sustainability of the fishery – as the FAO Code of Conduct for Responsible Fisheries (1995, Article 6.1) states, '*The right to fish carries with it the obligation to do so in a responsible manner* ...'. A key aspect in moving toward responsible fisheries thus lies in developing effective and accepted sets of rights and responsibilities, involving a broader perspective on rights-based management, and a suitable focus on 'responsibilities-based fisheries management'.

All of these considerations must be brought to bear in exploring and evaluating existing tenure arrangements, in adapting these systems over time, and if necessary, in creating new arrangements. The governance of tenure is undoubtedly a complex and sensitive task, involving as it does this complex blend of use rights, management rights and human rights. The importance of the 'right' tenure system cannot be over-estimated if small-scale fisheries are to meet their potential as sustainable sources of livelihoods and well-being.

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Thinking on tenure arrangements must be connected with that on the sustainability of the fishery





## REFERENCES

- Acheson, J.M. 1975. The lobster fiefs: economic and ecological effects of territoriality in the Maine lobster fishery. *Human Ecology* 3: 183–207.
- Allison, E.H. & Horemans, B. 2006. Putting the principles of the Sustainable Livelihoods Approach into fisheries development policy and practice. *Marine Policy* 30: 757–766.
- Allison, E.H., Kurien, J., Pomeroy, R., Ratner, B.D., Willmann, R. & Asgard, B. 2010. Unpublished manuscript. *Rights-based fishing: should it include human rights?* Penang, Malaysia, The World Fish Center.
- Allison, E.H., Åsgård, B. & Willmann, R. 2011. Human rights approaches to governing fisheries. *Maritime Studies (MAST)* 10: 5–13.
- Béné, C. 2003. When fishery rhymes with poverty: a first step beyond the old paradigm on poverty in small-scale fisheries. World Development 31: 949–975.
- Béné, C., Macfadyen, G. & Allison, E.H. 2007. Increasing the contribution of smallscale fisheries to poverty alleviation and food security. FAO Fisheries Technical Paper 481. Rome, FAO.
- Béné, C., Hersoug, B. & Allison, E.H. 2010. Not by rent alone: Analysing the pro-poor functions of small-scale fisheries in developing countries. *Development Policy Review* 28: 325–358.
- Berkes, F. 1986. Local-level management and the commons problem: a comparative study of Turkish coastal fisheries. *Marine Policy* 10: 215–229.
- Berkes, F., Mahon, R. McConney, P. Pollnac, R. & Pomeroy, R. 2001. Managing smallscale fisheries: alternative directions and methods. Ottawa, Canada, International Development Research Centre.
- Charles, A. 2001. Sustainable fishery systems. Oxford, England, Blackwell Science.
- Charles, A. 2002. Use rights and responsible fisheries: limiting access and harvesting through rights-based management. *In Cochrane, K.L. ed. A fishery manager's guidebook. Management measures and their application.* FAO Fisheries Technical Paper No. 424. Rome, FAO.
- **Charles**, A. 2006. Community fishery rights: issues, approaches and Atlantic Canadian case studies. *In Shriver*, A.L. ed. *Proceedings of the thirteenth biennial conference of the international institute of fisheries*, economics & trade, July 11–14, 2006, *Portsmouth*, UK. Corvallis, USA, International Institute of Fisheries Economics and Trade.

Charles, A. 2008. The right form of rights. SAMUDRA Report 51: 4-6.

- Charles, A. 2009. Rights-based fisheries management: The role of use rights in managing access and harvesting. *In* Cochrane, K.L. & Garcia, S.M. eds. *A fishery manager's quidebook*. Oxford, England, Wiley-Blackwell.
- Charles, A., Wiber, M., Bigney, K., Curtis, D., Wilson, L., Angus, R., Kearney, J., Landry, M., Recchia, M., Saulnier, H., & White, C. 2010. Integrated management: A coastal community perspective. *Horizons* 10: 26–34.
- Charles, A. 2011. Human rights and fishery rights in small-scale fisheries management. In Pomeroy, R.S. & Andrew, N. eds. Small-scale fisheries management: frameworks and approaches for the developing world. Oxfordshire, UK and Cambridge, USA, CABI Publishing.
- Christy, F.T. 1982. Territorial use rights in marine fisheries: definitions and conditions. FAO Fisheries Technical Paper #227. Rome, FAO.
- Civil Society Preparatory Workshop. 2008. Statement from the civil society preparatory workshop to the global conference on small-scale fisheries (4SSF), Bangkok, Thailand. SAMUDRA Report No.51: 7–9. [Available at: http://sites.google.com/ site/smallscalefisheries/statement].
- Cochrane, K.L. & Payne, A.I.L. 1998. People, purses and power: the role of policy in directing fisheries management as indicated in the debate surrounding a developing fisheries policy for South Africa. pp.73–99 *In* Pitcher, T.J., Hart, P.J.B. & Pauly, D. eds. *Reinventing fisheries management*. Dordrecht, Netherlands, Kluwer Academic Publishers.
- Copes, P. & Charles, A. 2004. Socioeconomics of individual transferable quotas and community-based fishery management. *Agricultural and Resource Economics Review* 33: 171–181.
- De Young, C., Charles, A. & Hjort, A. 2008. Human dimensions of the ecosystem approach to fisheries: an overview of context, concepts, tools and methods. Fisheries Technical Paper No. 489. Rome, FAO. 152 pp.
- Dyer, C.L., & McGoodwin, J.R. eds. 1994. Folk Management in the World's Fisheries: Lessons for Modern Fisheries Management. Niwot, USA, University Press of Colorado.
- FAO. 1995. Code of conduct for responsible fisheries. Rome, FAO.
- FAO. 2005. Increasing the contribution of small-scale fisheries to poverty alleviation and food security. FAO Technical Guidelines for Responsible Fisheries, No.10. Rome, FAO.
- FAO. 2007. Social issues in small-scale fisheries. Report prepared for twenty-seventh session of the Committee on Fisheries (COFI), 5–9 March 2007. COFI/2007/6. Rome, FAO.

- FAO. 2008. Global conference on small-scale fisheries. Securing sustainable smallscale fisheries: bringing together responsible fisheries and social development. 13–17 October 2008. Bangkok, Thailand. [Available at: http://www.4ssf.org/].
- FAO. 2011. Governance of tenure: Finding common ground. Voluntary guidelines on responsible governance of tenure of land and other natural resources. Natural Resources Management and Environment Department. Rome, FAO. 6 pp.
- Graham, J., Charles, A. & Bull, A. 2006. Community Fisheries Management Handbook. Halifax, Canada, Gorsebrook Research Institute, Saint Mary's University. [Available at: http://www.coastalcura.ca/resources.html].
- Hanna, S., Folke, C. & Maler, K.G. 1996. Rights to Nature. Washington, DC, Island Press.
- Hersoug, B. 2006. Opening the tragedy? SAMUDRA 45: 3-7.
- ICSF-WFFP (International Collective in Support of Fishworkers and World Forum of Fisher People). 2009. Briefing note for delegates to the 28<sup>th</sup> session of FAO's Committee on Fisheries (COFI), 2–6 March 2009. Rome, FAO. [Available at: http:// sites.google.com/site/smallscalefisheries/].
- Johannes, R.E. 1978. Traditional marine conservation methods in Oceania and their demise. *Annual Review of Ecology and Systematics* 9: 349–64.
- Johannes, R.E. 2002. The renaissance of community-based marine resource management in Oceania. Annual Review of Ecology and Systematics 33: 317–340.
- Kurien, J. 2000. Community property rights: re-establishing them for a secure future for small-scale fisheries. pp.288–294. *In* Shotton, R. ed. *Use of property rights in fisheries management: Proceedings of the Fish Rights 99 Conference*. Fremantle, Western Australia, 11–19 November 1999. Mini-course lectures and core conference presentations. FAO Fisheries Technical Paper, No. 404/1. Rome, FAO. 342 pp.
- Kurien, J. 2007. The blessing of the commons: small-scale fisheries, community property rights, and coastal natural assets. *In Boyce*, J., Narain, S. & Stanton, E.A. eds. *Reclaiming Nature: Environmental Justice and Ecological Restoration*. London and Chicago, Anthem Press.
- McConney, P., & Charles, A. 2009. Managing small-scale fisheries: moving towards people-centred perspectives. *In* Grafton, R.Q., Hilborn, R. Squires, D., Tait, M. & Williams, M. eds. *Handbook of marine fisheries conservation and management*. Oxford, England, Oxford University Press. pp.532–45
- Nomura, I. 2006. No one-size-fits-all approach. SAMUDRA 44, p.25.
- Ostrom, E. 1990. Governing the Commons. Cambridge, England, Cambridge University Press. 280 pp.
- **Ostrom**, E. 1995. Designing complexity to govern complexity. pp.33–45 *In* Hanna, S. Et Munasinghe, M. eds. *Property rights and the environment: social and ecological issues*. Beijer International Institute of Ecological Economics and the World Bank. Washington, DC, World Bank. 164 pp.

LAND TENURE JOURNAL

- Panayotou, T. 1982. *Management concepts for small-scale fisheries: economic and social aspects.* FAO Fisheries Technical Paper No. 228. Rome, FAO.
- Pinkerton, E.W. 1989. Cooperative Management of Local Fisheries. Vancouver, Canada, University of British Columbia Press.
- **Pomeroy, R.S.** 2001. Devolution and fisheries co-management. pp.108–145 *In* Meinzen-Dick, R., Knox, A. & Di Gregorio, M. eds. *Collective action, property rights and devolution of natural resource management: exchange of knowledge and implications for policy.* Feldafing, Germany, DSE/GTZ.
- Ruddle, K. 1989. The organization of traditional inshore fishery management systems in the Pacific. pp.73–85 *In* Neher, P., Arnason, R. & Mollett, N. eds. *Rights-based fishing*. Dordrecht, Netherlands, Kluwer Academic Publishers.
- Ruddle, K., Hviding, E. & Johannes, R.E. 1992. Marine resources management in the context of customary tenure. *Marine Resource Economics* 7: 249–273.
- Schumann, S., & Macinko, S. 2007. Subsistence in coastal fisheries policy: what's in a word? *Marine Policy* 31: 706–718.
- Sharma, C. 2008. Securing economic, social and cultural rights of fishworkers and fishing communities. International Collective in Support of Fishworkers. Paper prepared for the FAO Global Conference on Small-Scale Fisheries. Bangkok, Thailand.
- United Nations. 1948. Universal Declaration of Human Rights. Adopted by the UN General Assembly, Resolution 217A (III), 10 December 1948. New York, USA, United Nations. [Available at: www.un.org/Overview/rights.html.]
- United Nations. 2000. United Nations Millennium Declaration. Resolution adopted by the UN General Assembly. A/RES/55/2. p.9. New York, USA, United Nations.
- Veitayaki, J. 1998. Traditional and community-based marine resources management system in Fiji: an evolving integrated process. *Coastal Management* 26: 47–60.
- Willmann, R. 2000. Group and community-based fishing rights. In Shotton, R. ed. Use of property rights in fisheries management. Proceedings of the Fish Rights 99 Conference. Fremantle, Western Australia, 11–19 November 1999. FAO Fisheries Technical Paper No. 404/1. Rome, FAO. pp.51–57.
- Wilson, D.C., Nielsen, J.R. & Degnbol, P. 2003. The fisheries co-management experience: accomplishments, challenges and prospects. Dordrecht, Netherlands, Kluwer Academic Publishers.