

Governance Challenges for the Implementation of Fisheries Co-Management: Experiences from Malawi

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Abstract: This paper reviews some key governance challenges that are experienced in the implementation of fisheries co-management programmes. Specific lessons are drawn from Malawi and, to some extent, from other southern African experiences. Governments and representative user committees are supposedly key partners in the co-management programmes. Many fisheries co-management arrangements in southern Africa are, however, generally consultative, and partnerships tend to be unequal. Nevertheless, there are some co-management sites where co-operative and advisory types of co-management exist. This paper asserts that effective co-management demands the creation of an enabling environment that gives power and authority to both government and resource users at community and district levels in a broader participatory management process. By-laws at the district authority level should be legally binding and according to which fisheries resources are considered as natural goods for the benefit of the local communities. Taxation schemes for appropriation of the resources are important for the sustainable management of fisheries resources, especially in establishing measures for the regulation of fishery related activities. Roles of specific stakeholders should be clear as their support may be crucial to the success or failure of co-management initiatives. Incentives for community participation should primarily aim at resource recovery and sustainable utilisation of the fisheries resources for improved community livelihoods and not on monetary rewards. Where fish resources are overexploited, co-management programmes should include alternative sources of income.

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1. Introduction

The small-scale fisheries sector provides an economic activity and livelihood to rural based African populations. Fishing is a source of income, subsistence, and employment to many rural people. It can be done on a part- or full-time basis, and a wide variety of gear and craft, both traditional and ‘modern,’ are used. Apart from actual fishing, fish processing and marketing are an important source of income and household support for many. Women often play an important role in these activities. Ancillary industries such as boat building and maintenance, boat engine servicing, and net manufacturing offer employment opportunities to people in both rural and urban areas. Given the economic importance of the sector, it is no surprise that governing the maintenance of fish stocks for the small-scale sector is a continuing challenge, especially in areas with increasing human populations that exert pressure on natural resources. In this article, it is asserted that to meet this challenge, a policy shift is needed that facilitates the co-management of fishery resources.

This paper reviews some of the challenges in the governance of fisheries resources, especially those that have experienced a shift from centralized to co-management approaches. Although the paper is mainly based on secondary sources, it also draws on personal field experience. Béné and Neiland (2005) assert that through stakeholder participation, co-management can improve accountability and the overall governance system. It is against this background that this paper examines the many challenges facing the governance of fisheries at village and district levels. Previous reviews have focused primarily on the community level. Little, however, is documented on the limited support from local governments at district or provincial levels for the processes of co-management. This paper looks at community level participation and relates it to wider governance issues that take into account the sharing of power and authority among various stakeholders such as resource users, civil society groups, and government agencies at the district level.

This paper contains five sections. Section 2 presents the theoretical basis of fisheries co-management and governance. Section 3 outlines the most relevant governance challenges, specifically drawing upon lessons from Malawi and, where relevant, referring to other southern African countries. Section 4 provides a synthesis of the lessons learned, and Section 5 presents conclusions and recommendations for future reforms.

Since the 1990s, a debate on institutional arrangements and governance reforms has emerged both in fisheries literature and among practitioners, mainly sparked by the decline of small-scale fish resources (FAO 1993; Bell and Donda 1993; Sowman et al. 1998; Hachongela et al. 1998; Lopes et al. 1998; Allison et al. 2002). In the discussions, the open access and common property nature of the resources have been among the variables identified as reasons for the decline of the resources. In response, fisheries co-management arrangements were initiated in several African countries. For example, participatory fisheries management programmes were initiated on Lakes Malombe, Chilwa, and Chiuta in Malawi between 1993 and 1995 (Bell and Donda 1993; Hara 1996; Njaya 2002). Other examples in the region include Zambia and Zimbabwe, where co-management arrangements have been implemented on Lake Kariba since the mid-1990s (Hachongela et al. 1998; Malasha 2002), and Mozambique and South Africa where similar initiatives have been implemented in selected areas along the coast (Lopes et al. 1998; Sowman et al. 1998).

Community participation in decision-making processes regarding resource monitoring and control through formulation and enforcement of fisheries regulations is a key element in these arrangements. Nonetheless, the state remains an important actor in the creation of an enabling environment for community participation. In Malawi, the legislative and policy frameworks supporting community participation in fisheries management were developed in 1997 and 2001 respectively. In other African countries such as Tanzania and Uganda, fisheries policies that recognise community participation were formulated in the 1990s while Zambia and Mozambique are yet to have theirs approved. However, the remaining task in most countries is to implement the policies and legislations.

Many studies of CPR governance start from a user-group perspective and examine how resource users operate in a multitiered, embedded constellation of institutional arrangements. However, while recognizing the validity of these approaches, this paper examines more closely the role of governments in crafting co-management arrangements and creating facilitating environments for stakeholder participation. Given that the government is the dominating factor in many fishery governance arrangements, it is important to gain understanding about the specifics of its role in these processes.

2. Theoretical basis for fisheries co-management

As stated above, in response to declining fisheries resources – and other commons – and the failure of conventional measures to address these problems, a global debate on institutional arrangements and governance of the commons has emerged over the past few decades. The open-access nature of the fisheries resource is often considered an important factor in the decline of fisheries. The colonial introduction of property rights systems in Africa that were incongruent with existing ‘traditional’ arrangements has been cited as one of the reasons for the current de facto

open-access nature of the many resources (Nhantumbo et al. 2003). For example, Berkes (1996) and Bromley (1991) identify unclear institutional arrangements regarding property rights and the lack of compatibility between the different layers of an embedded institutional arrangement as important factors contributing to natural resource degradation in developing countries.

Failure to exclude outsiders – i.e., those not belonging to a community that claims to ‘own’ the resource – from a fishery is a continuous challenge for local resource users. Jentoft et al. (1997) associate the problem of outsiders’ intrusion to the lack of clear property rights. The situation is aggravated when governments fail to support local communities’ rights to sanction illegal fishers. This is due to not only the lack of resources but also to the fact that those accessing the resources with destructive fishing methods are politically more powerful (Knox and Meinzen-Dick 2001).

Many recommendations regarding sustainable common pool resource (CPR) governance include some allusion to dealing with the unclear property rights regime (e.g. Bromley 1991). Several of those dealing with CPR property rights regimes do so in direct or indirect reaction to Hardin (1968), whose solution of the tragedy of the commons was limited to either private or state property. This limited view sidelines the capacity of the community to self-regulate the exploitation of the common pool resources (Jentoft et al. 1997; Ostrom 1990).

In this paper, the question as to whether a regime can exist in its pure form is important. Jentoft et al. (1997) correctly note that community-based natural-resource governance regimes to some extent are associated with state property systems. As such, state actors set the margins for co-management regimes and define the level of participation of key partners; hence, the focus of this analysis on state actors. Furthermore, it is important to understand that in every co-management arrangement, the level of participation and the characteristics of the different partnerships are dynamic.

Concepts that emerged from the debate about the problems with CPR governance include co-management, governance, and decentralization. In this paper, co-management is conceptualised as a participatory form of fisheries management. Sen and Nielsen (1996) define it as an arrangement where the power and authority to manage a fisheries resource is shared between user groups and government. Pomeroy and Viswanathan (2003) include stakeholders such as non-governmental organisations as well as users and government. Co-management is about the inclusive right to participate in making key decisions about how, when, where, how much, and by whom fishing will occur. A problem with the actual design and implementation of co-management arrangements is the fact that some users (e.g., outsiders, elites) may get a disproportionate say in the governance of the resources (Jentoft et al. 1997). Also, as with any form of collective action, free riding may occur. In general, co-management seems to be more feasible for small-scale fisheries. This is because smaller group sizes and the relative homogeneity of communities are more conducive to collective action (Olson 1965).

A second concept that appears to be gaining popularity in the literature and that deserves attention in this brief overview is governance. Governance refers to 'how power and decision-making is shared among different components of society' (Béné and Neiland 2005, p. 7). These components include individuals as well as community groups and organizations; governance arrangements include legal, social, economic, and political issues applied to the management of fisheries resources. An enabling political environment should be created to allow the various components to exercise their powers and authorities over the management of fisheries resources through decentralised systems.

Decentralisation is a third concept with relevance to the search for feasible, participatory CPR governance arrangements. It refers to any act in which a central government systematically transfers part of its powers, authority, and responsibilities to local government structures or lower level institutions such as districts and community level committees or user groups (Ribot 2002; Pomeroy and Viswanathan 2003; Béné and Neiland 2005). Democratic decentralisation reforms offer an opportunity for legally supported forms of popular participation in the management of fisheries; it is crucial for the legitimacy of such community level representative institutions that they establish the prerequisites for a fair and transparent system of electing user representatives in committees.

In many parts of the world, Malawi included, certain fisheries related activities have been de facto governed for many decades by 'traditional' local arrangements (WHAT 2000). It is apparent that the introduction of any governance regime should take into account the existence of such traditional arrangements at the community level. For example, in the case of Malawi as well as in other African cases, the role of traditional chiefs in co-management arrangements has been controversial in the literature. Questions have been raised about the compatibility between assigning important roles to chiefs in these arrangements, on the one hand, and issues of democracy and accountability, on the other (Lowore and Lowore 1999; Ribot 2003).

3. Fisheries co-management challenges

Several co-management challenges experienced in Malawi and other African countries are outlined in the literature (Hara 1996; Lowore and Lowore 1999; Njaya et al. 1999; Hara 2001; Mohamed 2002; Hara and Nielsen 2003). In broader terms, the challenges described in the literature relate to transparency and accountability, initiation processes, membership, scale, and power struggle. However, most studies have centred on the role of resource users in community-level participation; little has been done on the district level.

3.1. Level of participation, transparency, and accountability

Co-management regimes are dynamic, and a variety of arrangements can be found in practice. Decision-making powers can range from absolute state control

to complete community autonomy (Sen and Nielsen 1996). Important components of co-management are sharing responsibility, decision-making, and authority (Mohamed 2002). How these components – particularly the formulation of local objectives and the inclusion of users in the decision-making process – are actually accommodated varies from case to case.

Based on the variation in roles and the level of power sharing between partners, Sen and Nielsen (1996) distinguish five broad types of co-management, summarized in Box 1. This conceptualization of categories is the basis of the analysis that follows below.

Box 1: Broad categories of co-management types (Sen and Nielsen 1996)

Instructive: Minimal exchange of information between government and fishers.

Consultative: Consultation between the partners, but the government makes final decisions.

Cooperative: Government and fishers cooperate as equal partners in decision-making processes.

Advisory: Fishers advise the government, and seek government's approval of their own decisions.

Informative: Government has delegated authority to make decisions to fisher committees that are responsible for informing the government of these decisions.

The instructive type of co-management involves a minimal exchange of information between government and fishers. This type of co-management is different from centralised management in the sense that there is a mechanism for dialogue with fishers, but in the end the government imposes management plans and only informs the fishers about them. Consultative co-management involves a government that consults more actively with the community, but the government remains responsible for making final decisions. In the cooperative type of co-management, the government and fishers have equal powers in the decision-making processes. In the advisory type, the fishers advise the government of decisions to be taken. The government is then asked to endorse the decisions. The informative type involves the actual delegation of authority to fishers. In practice, it may not be a formal arrangement but rather a traditional form of fisheries management that is recognized by the government. Informative co-management may be a formal delegation of authority or recognition of traditional customs and authorities.

Many co-management initiatives tend to lean towards government dominance in the decision-making processes. They are often of a consultative type. The Lakes Malombe and Chilwa participatory fisheries management programmes in Malawi are good examples of this tendency. In these cases, setting objectives for the co-

management arrangements is still primarily done by government representatives who show little or no consideration for the traditional practices and local knowledge of the resource users (Hara et al. 2002; Mohamed 2002). In Malawi, only Lake Chiuta and Mbenji Island on Lake Malawi, and in Zambia, Sinazongwe on Lake Kariba have demonstrated a shift towards cooperative or advisory co-management types.

A co-management regime may at first be traditionally informative, with community dominance in decision making processes (as was the case with Lake Chiuta) before shifting towards advisory or cooperative forms of co-management where the role of government representatives becomes increasingly predominant. A major factor that can contribute to such a shift is the influx of migrants who introduce destructive fishing practices or simply increase pressure on the resources. In this case, governments might step in and support the user community by approving the formulation and enforcement of by-laws.

In Malawi, as elsewhere, the fisheries resource-management process has largely been based on a centralised approach. In the past decades governments have formulated fisheries-development policy goals to maximise fish production at sustainable levels. These policies neglected existent traditional fishing methods, since these were regarded as primitive and not able to meet demand for fish. In some cases, communities were against the introduction of some fishing technologies, such as trawlers on Lake Chilwa. However, institutional arrangements have usually left communities with no options once the government had made its decision.

The centralised approach is evident in the case of some of the provisions outlined in the Malawi Fisheries Conservation and Management Act of 1997. For example, Sections 5(1) and 4(1) give powers to the Director of Fisheries (a government official) to appoint members of the Fisheries Advisory Board and Honorary Fisheries Protection Officers. The Director is also empowered to develop local management plans that can be imposed unilaterally. Although the local communities are formally consulted in this process, they are not given a platform to advance their interests in the co-management arrangement. Given this legal arrangement, it is no surprise that overall levels of participation are low.

Hara et al. (2002) correctly point to the fact that the composition of the representative user committees is crucial. In Malawi, the user committees are not always composed of fishers alone. Due to the initial promise of paying sitting allowances¹ and buying nkacha nets² by donors, the composition of Beach Village Committees (BVCs)³ formed around Lake Malombe is found to be based

¹ This is money paid to participants for attending meetings or workshops

² Nkacha is an open water seine net allowed in Lake Malombe, only. It is banned in other Malawi bodies of water because it destroys habitats. Its operation involves two boats and about six crew members with one member diving to close (purse) it at the bottom (FAO 1995).

³ A BVC is composed of people engaged in fishing-related activities at a particular beach.

on power rather than on need and relevance. In some studies (Hara 1996; Hara and Nielsen 2003), membership of actual fishers in BVCs was low (30 percent) while participation of people engaged in various other occupations was high (70 percent). The sitting allowances are a clear example of an institutional arrangement leading to perverse incentives, undermining the co-management initiative. In sharp contrast, the same studies found that Lake Chiuta BVCs that initiated the co-management process were composed of over 90 percent fishers.

The fact that actual fishers are not often sufficiently represented in the user committees is problematic. It means they cannot participate in decision-making about rules and regulations that target the use of specific gear types such as nkacha. The de facto exclusion of many fishers from the committees has resulted in co-management practices that lack not only transparency but also legitimacy. Unsurprisingly, this leads to general non-compliance with regulations on close season, mesh and gear size restrictions and licensing.

One reason cited for the specific exclusion of nkacha fishers is the general consensus about the destructiveness of the practices they use. However, most lakes are characterised by multi species and multi gear fishing practices, and it is therefore unlikely that BVCs will consist of only nkacha fishers. It is likely that long line, gillnet, and fish-trap fishers will be on the user committees as well. Rather than exclude nkacha fishers and risk undermining the perceived legitimacy of BVCs and the rules and regulation they propose, it seems more feasible to create BVCs that are as inclusive as possible.

Another question centres on how accountable the BVCs are to the fishing community. While elections are held for BVC sub-committee⁴ members, in some areas traditional leaders pick the user committees (Hara 1996). Consequently, the sub-committee members become more accountable to the traditional leaders who chose them and not to the fishers.

3.2. Responsible partner for the initiation of co-management

The question of which partners initiate the co-management arrangement is crucial. Another key question centres on whether the resource status has an implication for the user communities' livelihoods. On Lake Malombe, Lake Malawi, and Lake Chilwa nkacha fishers practice migratory fishing. The fishers move from one lake to the other on a seasonal basis. Since the government initiated the co-management process on Lake Malombe in the early 1990s, BVCs have almost no nkacha fishers as members. They are mainly comprised of non-fishers and gillnet operators. This is partly due to the promised sitting allowances and gear compensation scheme⁵ of the nkacha (Hara 1996).

⁴ A BVC is composed of people engaged in fishing-related activities at a particular beach while a sub-committee is the elected body of 10-12 members representing the interests of the BVC. This is a definition from the Fisheries Conservation and Management Act of 1997.

⁵ A scheme intended to buy nkacha nets from Malombe as a way of reducing effort. However this was not implemented due to uncertainty regarding its future sustainability.

The Lake Chilwa co-management started when the lake dried up in 1995/96. The government and local leaders designed certain rules, such as banning the use of poisonous plants (katupe, *Syzigium* species) and seines in river mouths and lagoons to protect remnant fish stocks. From 1996 to 1997, after the lake refilled and fish stocks recovered, the co-management programme was effective. However, after the stock recovered, the fishers became sceptical about the roles of local leaders who still continued to formulate rules that were focused on regulating seine operations, while the actual seine fishers were sidelined within the BVCs, much the same on Lake Malombe. The emerging scepticism undermined the initial success of the co-management arrangement.

On Lake Chiuta, however, the community initiated the co-management process. They were against nkacha fishing and hence sought support from the government when they formulated a regulation regarding the ban of seining operations in the lake. However, at the same time traditional leaders based in Mozambique, which also borders on Lake Chiuta continued to allow seining in their waters. The effectiveness of the Malawian ban on seine fishing was undermined by the fact that many Malawians subsequently migrated to the Mozambican side of the lake to operate their seines. This also led to conflicts between Malawian and Mozambican fishers that are difficult to mitigate.

3.3. Membership and scale

Ostrom (1990) points out that in development of common property regimes, membership has to be clearly defined. It is a challenge to have a common agreement on the membership of user committees. Several criteria must be taken into account when defining the membership of an effective common-property management regime. For the BVCs and sub-committees in Malawi, these criteria would have to include gear type and fishing practices. Conflicts are likely to occur where a fishery consists of many species and multiple types of gear are used, especially when certain fishing methods are perceived as destructive. As mentioned earlier, on Lake Malombe the nkacha fishers and their crew members were mostly left out in BVCs and yet most of the reviewed regulations target them directly. On Lake Chilwa matemba⁶ seine fishers were excluded from the BVCs while, again, their types of nets have been subjected to close season and mesh size restrictions. The obvious dilemma faced by BVCs is that including these seine fishers might be like 'putting a fox in a hen's pen' (Jentoft et al. 1997), but denying them membership undermines the effectiveness of the rules and regulations that affect their gear type. The consensus, based on empirical work, is that a genuine effort should be made to include them where possible (Hara and Nielsen 2003).

⁶ Matemba seine is a small-meshed (less than a quarter inch) beach seine that is operated in Lake Chilwa targeting *Barbus paludinosus* locally known as matemba. The net is cast around an area by encircling targeted fish and about 6-20 fishers haul the net to a beach or floating island (chimbowera).

However, their inclusion is complicated by their potential conflicts with local fishers. Local fishers who use gear such as fish traps land less catch than seine operators (Njaya 2002). As a predictable consequence, fish prices decrease, causing conflicts between fish trap and seine fishers. The fact that migratory seine fishers have at times gotten involved with local women has seriously aggravated their already tense relations with resident fishers. However, intermarriage between the two groups has led to some local households actually supporting the illegal fishing practices of the migrants.

The inclusion of traditional leaders in the user committees is also controversial. Traditional authority structures in southern Africa are a legacy of the colonial era. In countries such as Malawi and Mozambique, traditional authorities have been engaged in indirect rule that was introduced in the 1940s by the English and Portuguese colonialists respectively (Lopes et al. 1998; Nhantumbo et al. 2003). In the colonial era, the main responsibilities of the chiefs included collection of taxes, fees, and dues as demanded by the Portuguese in Portuguese East Africa (now Mozambique) and British in Nyasaland (now Malawi). After independence, many African countries continued with the 'traditional' authority structures. A review of their duties granted them a role in settling disputes and allocating customary land. In Malawi, the implementation of many development projects has depended on the support of 'traditional' leaders. Therefore, there has also been a growing role of traditional leaders as partners in co-management processes (Hara and Nielsen 2003; Hara et al. 2002).

Some scholars have indicated that involving traditional leaders in co-management is undesirable because they are not elected members of this institution (Ribot 2003; Lowore and Lowore 1999). While it can be argued that the traditional leaders can be important to legitimate co-management institutions, they may become autocratic, unaccountable, and undemocratic. This dilemma over considering chiefs to enhance legitimacy or disregarding them to enhance democracy has confused practitioners on the ground.

Solutions that tried to accommodate this dilemma in practice have frequently resulted in costly institutional arrangements. In Malawi, different responses to the dilemma can be found. In some instances, traditional leaders have become advisors, while others are included in the representation structure and granted positions such as BVC chairs. In other instances, chiefs themselves formed associations in which actual resource users have little to say. Interestingly, in Malawi, some success stories about the role of chiefs in co-management arrangements have been documented. In Mbenji (Lake Malawi), Chief Msosa has managed to conserve good stocks of fish such as Utaka (Haplochromine species) by means of practices based on beliefs that are traditionally grounded within the community. On Lake Kariba, after donors pulled out in the 1990s, Chief Sinazongwe took over the responsibility of leading the co-management process and negotiated a favorable revenue sharing agreement with the district councils (Malasha 2002).

3.4. Power struggle

Several formal and informal institutional structures exist in all lakeshore areas of Malawi. The informal structure involves power and authority vested in chiefs while the formal structure involves a decentralised, administrative framework. The traditional structure influences the decision-making processes within villages and on beaches. This form of influence needs to be considered when introducing new authoritative structures such as user committees in the villages, as their impact will be based on support from the traditional leaders.

However, the influence of traditional leaders has its limits. Power struggles can occur between leaders and communities, as shown in the example of Lake Chiuta where chiefs lost the support of the larger fishing community because they supported illegal fishers. Another example is Lake Chilwa where chiefs and BVCs disagreed on the use of revenues from enforcement activities. This was mainly due to limited accountability of funds, which chiefs collected through penalties from illegal fishers. In both examples, co-management regimes have been weakened because of the role and attitude of traditional leaders. For co-management arrangements to be effective, it is important that the roles of the chiefs be clarified, not only to avoid conflict but also to stipulate how to deal with disagreements between the communities and their leaders in issues related to fishing (Hara 1996; Njaya and Hachileka 2002).

Another problem relates to unequal power relations between small-scale and large scale fishers. How can the interests of large scale trawl operators be accommodated in co-management initiatives? The question centers on whether the small-scale fishers can control operations of large scale commercial fishers or whether the commercial fishers comply with the rules and by-laws of the small-scale user committees.

3.5. Limited support from local governments

Scholars argue that devolution of functions is necessary for effective participation and accountability of the communities and resource user groups in resource management (Pomeroy et al. 2001). Fisheries co-management in many African countries mainly involves partnership between the central government and local communities. This is contrary to the Asian situation where some nongovernmental organisations or civil society groups are actively taking part in fish resource management.

When fisheries co-management was adopted in Malawi in the early 1990s, the decentralisation policy was not yet in place. Since then, however, some natural resource sectors have decentralised while others, like the fisheries sector, are also in the process of being decentralised. The devolved functions include fisheries enforcement, registration and licensing of vessels, and gear for the small-scale fisheries. The commercial fishery is still centrally controlled. At the local level, however, there is still weak capacity in terms of manpower and skills. This limits

the ability of district authorities to effectively handle issues such as by-law formulation, drawing management plans, sanctioning offenders, and the integration of user committees within the decentralised administrative structures. Additionally, with such weaknesses there is always a problem of financial resources for fisheries management at district levels because revenue sharing schemes through taxation systems are not implemented. Consequently, there is always demand for financial support from the central government, which in most cases is not adequately addressed (Njaya 2002; Hara et al. 2002).

4. Major lessons learned

Based on the key challenges outlined in this paper, especially in relation to participation and accountability, several strategies are proposed in this section. These include shifts from instructive to consultative forms of co-management, scaling up co-management processes and inclusiveness through decentralisation reforms, community empowerment through revenue sharing and the provision of an enabling environment for a greater level of participation by communities in decision-making processes, and the formulation of clear objectives and roles of actors at both the community and the district assembly levels.

There is a need to empower fishing communities, especially those that have clearly defined membership and depend on the resource for their livelihood. A user committee such as a BVC should have members that are involved in fishing-related activities. Of course, membership of such representative bodies may depend on the type of ecosystem. For example, in Lake Chilwa the ideal of having a BVC with only fishers is compromised by the fact that water level changes, and the actual presence of fishers is subject to seasonal and periodic migrations. In this case, inclusion of various stakeholders such as non-fishers could be considered to ensure that fisheries management regulations are enforced at all times (Mikalsen and Jentoft 2001).

The role of chiefs in a decentralised fisheries management framework remains debatable. In this paper, examples from Malawi have been presented that seem to support the argument that the chiefs can play a positive role in co-management arrangements. As Hara and Nielsen (2003) and Wilson (2003) assert, chiefs are the custodians of an inherited wealth of local knowledge, and which their inclusion in governance arrangement can benefit fisheries management. However, it can be observed that in some co-management sites, chiefs have hindered implementation of resource management plans for their respective water bodies or villages (Hara 1996; Lopes et al. 1998; Whande et al. 2006). Some village heads have constantly changed BVC membership to make sure that members chosen are accountable to them and not the community. This has happened, for example, in the villages of Kadewere (Lake Malombe) (Hara 1996) and Namalele (Lake Chilwa). Often, problems arise when chiefs want to derive benefits from illegal fishers. To reduce these malpractices, it is necessary to check and guide the conduct of chiefs in

the co-management programmes. This can be done through formulation of management plans and by-laws with clear roles outlined for each stakeholder group, including the chiefs.

The recent fishery by-law process in Malawi that seeks the transfer of discretionary powers to local levels offers an opportunity for empowerment of the community institutions. By engaging all key stakeholders, including small-scale and commercial-fishers, government departments, district assemblies, nongovernmental organisations, and other groups, a broad-based participation in decision-making processes will be achieved. Ribot (2003) calls this broad inclusion a key feature in effective decentralisation.

Including taxation systems in the by-law formulation process can offer an opportunity for sustainable revenue collection destined for the co-management of small-scale fisheries. The district assemblies can be granted authority to collect levies from appropriators of the commons. This form of taxation ensures that the local community as a whole benefits from utilisation of the fisheries resources. In this respect, lessons can be drawn from Sinazongwe (Lake Kariba) where the user committees collect money in the form of levies from fishers and fish traders. The benefits are shared among the entire community around the fishing area. Funds from the taxation schemes can be used to provide basic services that in most cases represent immediate needs for lakeshore-based communities, such as building schools and clinics and providing water supply.

How the process of co-management programmes is initiated is important. The example of the Lake Chiuta co-management initiative is instructive, in this context. The local fishing community initiated the process and has subsequently gained support from the rest of the village communities. In contrast, the Lakes Chilwa and Malombe co-management programmes are still mainly consultative because key actors who operate seine nets are excluded as members of the BVCs. To improve the co-management situation on Lakes Malombe and Chilwa, seine net operators should be included in the user communities. Another strategy is to scale up co-management from village to district level with recognition of decentralised structures.

5. Conclusion

In this paper, several challenges for the design and implementation of fisheries co-management arrangements have been identified. In the analysis of participatory arrangements, much emphasis has been given to the local level, that is, from village to district or provincial level. The roles of the central governments have been considered as well due to their power and authority in guiding and implementing the decentralisation process that sets institutional margins for co-management.

The overview clearly shows that there is a need to recognise the roles of chiefs in the co-management process. If they are left out, conflicts between them and the user committees are bound to emerge. Experience shows that success of the gov-

ernance arrangements depends on how local leaders are involved in the process, as they are a symbol of power and authority in society. However, there is a need for clear rules regarding their roles. Mechanisms of power sharing with the rest of the committee are essential. Clarity on these issues will minimise power struggles with the user committees that may jeopardize the co-management arrangement as a whole.

Also, inclusiveness has been shown to be an important issue, especially where fishers operating various gear types are involved in the co-management arrangements. To legitimise the process, decisions that aim to restrict certain gear types should be made in the presence of those affected.

In Malawi, as well as other African countries that have decentralized certain tasks related to natural resource management, local (district) authorities are supposed to engage actively in fisheries co-management practices. In Malawi, steps are being taken to devolve extension and enforcement functions from the Department of Fisheries to the district level. The recent changes in the by-law formulation process practiced in villages around Lake Malombe and southern Lake Malawi require a decentralised framework including active and supporting district authorities to be effective. The same active role and supporting attitude of local authorities is called upon regarding issues such as revenue sharing schemes through establishment of a fisheries fund, precise definition of user rights, resolution of conflicts, and enforcement of sanctions.

For district assemblies to have adequate human and financial resources to implement a programme on broad-based participatory management, decentralisation reforms should affect all sectors, including small-scale, commercial, and aquarium fisheries. Note, however, that decentralization may lead to elite capture, politicization of fisheries policies, and opportunistic support of local politicians for those engaged in non-sustainable forms of fishing.

Finally, it is important to recognize a need to harmonise fisheries policies and legislation with other natural resource policies that focus on community participation. The principles of engaging the user community in co-management practices should apply to all forms of natural resource governance. This will promote greater participation and accountability within community structures as well as within the decentralised framework at large.

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