

5. Co-managerial potentials for Tanzania's Lake Victoria fisheries perspectives from two landing sites

M. MEDARD¹, K. GEHEB², E. MLAHAGWA¹, M. KABATI¹, D. KOMBA¹, D. MSUNGA¹, D. NGUSSA¹, B. ZENGE¹, and U. WABEYA¹.

¹Tanzania Fisheries Research Institute, P. O. Box 475, Mwanza, Tanzania

²UNECIA Ltd. Lake Victoria Fisheries Research Project, P. O. Box 2145, Jinja, Uganda

5.1. Introduction

Ihale is a large landing fish site lying approximately 65 km. from Mwanza along the Mwanza-Musoma highway. It was selected as a candidate for this study because of its proximity to Mwanza as well as being representative of a large landing site. It has an average of 120 boats and three agents from the fish processing factories visit the beach on most days. During the study, the population at Ihale was about 5,000 people, most of whom were involved in fishing and trading activities. Farming is little practised because of the erratic rainfall patterns within the area. The major gear types used at the landing were gillnets and long lines (Geheb, *et al.*, 2000: 30).

Mwasonge is one of the smallest beach in the Mwanza Region's Misugwi District. It is located about 12 kms from Mwanza, on the border between Mwanza Rural and Misugwi districts. Its total population was about 1,500 people. The main fish caught was tilapia and, on average, 5-10 boats landed at the beach daily. Fishing occurred daily, but catches were low especially during dry seasons (Medard *et al.*, 2000: 157). Inhabitants also relied on farming, and grew maize, cassava, and millet. The community also farmed a vegetable garden along the shore.

The methods employed in this study are described in Chapter 2 of this volume. This paper presents the findings of the study, and then discusses these in the light of the co-managerial debate on Lake Victoria generally and, more specifically, in terms of co-managerial efforts in Tanzania. In its recommendations, this paper suggests lessons from this study that need to be taken into consideration, and how this might occur.

Some of the study's more interesting findings are summarised in Table 1 below.

5.2. Main study findings

Community institutions that influence access/ownership of fisheries

The most important community-based fisheries management institutions are the Beach Management Units (BMUs). When first imposed on communities, the Tanzanian Fisheries Department described the following as the BMU's roles:

- (a) Monitoring illegal gear users (beach seiners, people using gill-nets with less than the minimum mesh-size, fish driving methods, and poison). Offenders were supposed to be identified and then reported to the district FD office.
- (b) Confiscating illegal gears and surrendering them to the FD.
- (c) Ensuring the beach environment was clean.
- (d) Ensuring that all fishing boats within their waters were registered.

Elsewhere, Medard and Geheb (2000) have considered the manner in which the BMUs were established, and argued that BMUs were likely to become 'socialised' in such a way that they began to meet the social and cultural objectives of the community as opposed to any conservation objectives *per se*. An additional problem that we raise here is that BMUs are, in many respects, asked to enforce rules and regulations likely to be unpopular with the fishing communities and, as such, run the risk of being ostracised. BMUs are, nevertheless, the most concerted attempt at including communities in fisheries management on Lake Victoria.

Summary of notable findings from Mwasonge	Summary of notable findings from Ihale
<p>The BMU at Mwasonge has managed to achieve the following things:</p> <ul style="list-style-type: none"> (a) Confiscated 120 nets with illegal mesh-sizes. (b) Managed to eliminate fishing with poisons for the beach. (c) Confiscated a boat from an illegal fisher (an outsider). (d) Managed to construct a pit latrine for the beach community. (e) Introduced a number of bylaws for management purposes as well as for BMU survival. (f) Reduced the incidence of using under-sized nets. (g) Kept records on the size of gear used for each boat, serious offences, number of boats landed, number of new fishers arrived. (h) Managed to develop a partnership with TAFIRI, Ukiriguru Agricultural Institute, the District Health Department, other BMUs. (i) Managed to organise a meeting for the mobilisation of funds at the ward level. (j) Collected fines, which were used to cover various BMU costs. (k) for transport and the cost of s, over-night costs and night outs for reporting purposes and visiting other beaches. (l) Developed good relations with the village government and sorted issues in form of meetings. 	<p>The BMU at Ihale had managed to achieve the following things:</p> <ul style="list-style-type: none"> (a) Confiscated 20 nets 5 beach seines and surrendered them to the FD. (b) Managed to negotiate with factory agent to build a toilet on agreement that he would run it, and collect money on its use, before surrendering it to the village government. (c) Demolished several houses to make the beach area less crowded. (d) Attended various seminars on tree planting and negotiated with forest extension officer to plant trees at the beach and individual houses. (e) Managed to resolve a conflict with the Village Government. During the last visit to the landing, however, a new Village Executive Officer was complicating the relationship between the BMU and the Village Government. <p>Other notable issues from the landing are as follows:</p> <ul style="list-style-type: none"> (a) Illegally-sized nets used by fishers connected to factories are still in use and very difficult to control. (b) The District Fisheries Officer allowed the beach's beach seines to continue to operate, and asked the BMU to closely monitor their catches. After a week, he compared the incomes from beach seines against those of gill-nets, and found that the former tended to earn less than the latter. He later told the beach seiners to surrender their nets, and four large nets were passed on to him.

Table 1: Summary of notable issues that arose during the monitoring process.

Every village in Tanzania has a village government structure that is contained within broader ward, district, regional and national structures. Initially, when the BMUs were introduced, the Ihale Village Government considered the new organisation a direct threat to its authority. The two organizations were, ultimately, able to come to terms with one another, and iron out their mutual worries over overlapping responsibilities and jurisdictions. Regardless of location, village governments and their internal administrative structures play an important role in the administration of Tanzania's Lake Victoria fishery.

Otherwise, fishing communities are often characterised by a plethora of social and economic organisations of varying sizes. At Mwasonge, these were virtually all women's groups with some form of revolving credit scheme for their members. While these also existed at Ihale, the men's football and women's netball teams (both called 'Manchesta'). Geheb, in the introduction to this volume, describes the teams as follows: "They occupied an ambiguous place on the institutional landscape of the village, and certainly appeared to be more than merely sporting institutions. With so many of the beach's inhabitants involved in the teams, they

represented a point during which the entire community could converge upon itself, to create a focus moment during which friendships could be reaffirmed, new ones created, discussion initiated and politics debated”.

Communities and externally-introduced management measures

During the set-up process, the community revealed how they faced various conflicting issues regarding the formation of BMUs which, in particular, related to the failure to fully involve all actors (see Medard *et al.* 2000, 2001; Geheb, *et al.* 2000; Medard, 2000; Onyango, 2000). Of particular concern to community members was the failure to adequately explain where the Village Government fitted in, and how the BMU and Village Government’s activities and jurisdictions were mutually exclusive. In the process of its operation, the BMUs confirmed that they had faced a number of problems which were difficult to solve without recourse to the Village Government. At both Ihale and Mwasonge, the following difficulties were encountered:

1. Recognition of the BMU by fishers: in both communities, other fishers who were not in the BMU did not recognize it as a legitimate institution, and perceived the organisation as an FD-appointed unit, and not a community-based one.
2. At both Ihale and Mwasonge the village leaders were concerned that they were not involved in the formation of the BMUs and that they were bypassed during the formulation process. In particular, they were concerned that they had no responsibilities within this new institution. In any case, they did not think that the FD could simply come to their villages and for a group without first consulting with village representatives (Medard, 2000).

Community acceptance of the BMU role

During the monitoring process, both BMU groups and communities experienced problems and decided to solve these by drawing on local opportunities and support. The problems they encountered and the way in which these were solved were as follows:

- (a) Successful discussions and negotiations occurred between the village government and BMUs after the latter realised that they would be unable to work in isolation from other, village-based, administration. In this way, the BMUs and the village governments were able to work together to achieve a number of outputs, which included the construction of toilet and shower facilities at Ihale, to combat waste on the beach, to plan settlement on the beach, to identify new sources of funding besides village government sources, involving other institutions in sanitation and hygiene matters, and persuading municipal levy collectors to contribute towards the maintenance of cleanliness at the landing sites. All of this was done hand-in-hand with the village government, which was regarded as a trusted support institution, which could provide the BMU with various kinds of security, and guarantee it in various official communications and contracts at the local level.
- (b) The BMU and the village government managed to agree upon the division of funds gathered by the BMU through fines and landing fees.
- (c) As a way of raising funds, the BMUs introduced fisheries management byelaws, against which they could collect fine. The BMUs could, in this way, be financially independent.
- (d) To ensure that their relationship with the FD remained good, the BMUs took to reporting to the FD district fisheries offices frequently, and developed filing systems in which they lodged their reports, which included reports on illegal gear use, and those who had failed to pay license or boat registration fees. The BMUs, in addition, confiscated a number of illegal gears, which they surrendered to the FD, and worked to control theft on the lake.
- (e) Organizing fund-raising strategy with other groups on how to stand on their own financially.
- (f) Individuals who were unable to perform the duties assigned to the BMUs resigned.
- (g) Some BMU members decided to misuse the funds gathered by the BMUs, with the result, at Mwasonge, that the BMU was dissolved by the Fisheries Department (FD) and a new one formed.
- (h) In order to strengthen their positions, the BMUs sought out partnership with external institutions and individuals, such as fish processing factories, other BMUs at other beaches, and NGOs.

Understanding the benefits required by communities in order to adopt and/or develop regulatory institutions.

- (a) *Financial support:* The communities recognise the need for financial resources if they are to effectively perform the BMU's responsibilities. Their primary source of funding is via fines, and some of the byelaws at the two communities were as follows:

Mwasonge	Ihale
(a) Drunk people not allowed to fish; fine: Tshs. 500/-	(a) Bathing in the lake is banned; fine: Tshs. 5,000/- to be introduced.
(b) No fighting on beach or while fishing; fine Tshs. 1,000/-	(b) Washing clothes and utensils at the beach banned; fine: Tshs. 1,500/-.
(c) New arrivals to the landing should have a letter of introduction; if not, they are chased away.	(c) Fish have to be handled with care and not thrown on to the ground; fine: Tshs. 5,000/-
(d) No theft is allowed. Captured thieves must replace the item stolen and are fined Tshs. 10,000/-	(d) Urinating and defecating near the lake banned; fine of Tshs. 5,000/-
(e) Replacement of property and a fine of 10,000 was set.	(e) Illegal gear was fined Tshs. 1,000/-
(f) New fishers must pay a landing fee of Tshs. 100/-. If not, they are sent away.	(f) New fishers were charged a Tshs. 1000/- arrival fee (<i>makanyagio</i>)
(g) Each fishing boat is supposed to contribute a fish the BMU to the BMU. If not, they are prevented from fishing.	
(h) No fishing is allowed at night.	
(i) No fish may be landed at night.	

Table 2: Bylaws as source of funds for BMUs.

At Ihale, members of the BMU were each supposed to contribute Tshs. 3,000/- towards the maintenance of the BMU, while BMU members at Mwasonge agreed to pay Tshs. 1,500/-. This was not, however, a consistent source of funds as members could not always afford to make their contributions. When the monitoring trip visited Ihale in October 2001, the BMU had saved Tshs. 45,000/-², while Mwasonge's BMU had saved Tshs. 3000/- At Ihale, fines contributed about 10% towards the BMUs budget, 15% from landing fees for fishermen and about 75% from the contributions of BMU staff,

- (b) *Material support:* at both beaches, patrol equipment, sanitation and other beach facilities were all mentioned as possible future investments should the BMUs be able to generate enough funds. The BMUs at both beaches had received gumboots and sweaters from the Fisheries Department (FD) as part of what was considered 'patrol equipment'. BMU members said that they hoped that the government could donate more, such as patrol boats, fish *bandas* and fish processing equipment, which would assist the BMUs to carry out their duties.
- (c) *Human resources, moral and expertise support:* during various workshops and meetings with the community, they expressed the need for the communities to be educated in various fisheries management matters. During various workshops, to which representatives from Ihale and Mwasonge were invited, the communities expressed their appreciation at being involved. They were also very appreciative of the visits by the monitoring teams, and liked to be able to discuss the fishery, its management, and various options for the future with us.
- (d) *Shared commitment amongst all stakeholders:* the communities indicated that they expected all stakeholders to share their commitments in the management of the lake. They included the FD, industrial fish processors, levy collectors, fisheries research institutions and others as 'stakeholders'.
- (e) *Interactive dialogue:* the communities wanted an interactive dialogue between partners and resource beneficiaries. At Mwasonge, for instance, the BMU leaders visited another beach which was funded by the Lake Victoria Environmental Management Project (LVEMP) and the FD, and which had patrol boats and some sanitary facilities. Negotiations for a wider monitoring strategy including all beaches

² During the study, USD 1 = Tshs. 890.00

in a ward, which would include mutual fund-raising activities, was one management option raised by the Mwasonge BMU (Medard *et al.* 200: 169). Likewise, at Ihale, the BMU had planned a community fund-raising activity with a view to inviting neighbouring BMUs, governmental and non-governmental institutions, individuals and other resource users together to form an umbrella fisheries management organisation.

- (f) *Enabling legislation:* the two communities need enabling legislation to allow them to draw the lines of authority and responsibility for resource management. They needed skill, knowledge, support and to be trusted so that if such legislation were to be issued, then they would be able to implement and enforce it. Of particular concern to the two communities was the fact that they had no moderating influence over any FD excesses – while they could dismiss errant BMU members, the same was not true of corrupt FD officers. In addition, some fishers simply played the BMU off against the FD, claiming only to listen to the FD and not the BMU – this latter difficulty could well have been solved by the legal endorsement and clarification of the BMU’s roles. Interviews with the FD and the BMUs confirmed that some of the government’s fisheries regulations are not clear, others are out-dated, and many respondents were reluctant to seek recourse from the law because of the excessive time and money that such actions implied. Figure 1 shows the courses of action available to the BMU for the reporting of various offences. As the gravity of the offence increases, so too the likelihood that the BMU will seek solutions from outside the community. Depending on the BMU’s own reading of the offence and the circumstances under which it was committed, cases might have been referred to the FD, where a similar assessment could occur. The FD might then seek to sanction the offender or send him/her on to the police.
- (g) *Inclusion of political figures in the management process:* respondents argued that political leaders should have a role to play in Lake Victoria’s management because, in this way, they could lend influence and credibility to the process. At Ihale, respondents argued that trying to negotiate a satisfactory outcome with levy collectors (who were politically connected and legitimised) was very difficult. Ihale’s inhabitants felt that if they paid a levy to the municipal council, then tangible services ought to be made available to them. At Mwasonge, the influence of political forces was felt during the elections in 2000, when political aspirants encouraged people to disregard the BMU and other fisheries regulations in an effort to win their support.

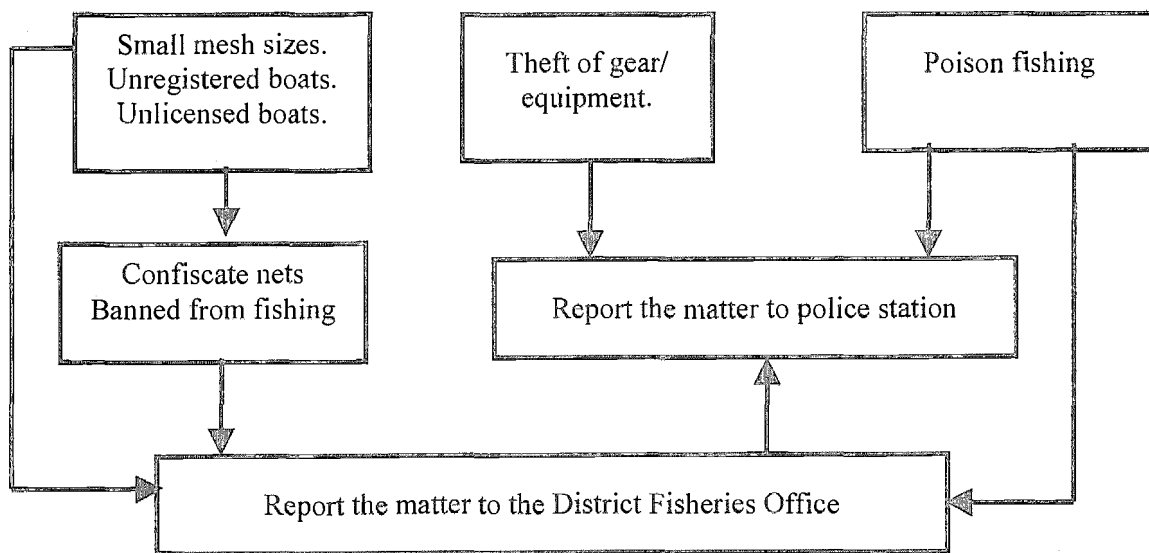


Figure 1: Options available for the Mwasonge Beach BMU to report offenders and sanction them

Understanding of the factors that contribute to the survival of community-based institutions over time.

At the survey sites, several factors contribute to the survival of the institutions over time.

- (a) *Absence of corruption amongst the members:* at Mwasonge the first BMU was dissolved when some of its members were found to be corrupt. At Ihale, the misappropriation of funds, and the conflict between the BMU and FD as a result of corruption and continuing beach seines use, was a major problem. In either case, corruption was seen as a major reason for BMUs to fail.
- (b) *Misappropriation of funds:* at Ihale, the former Chairman to the BMU and another member had received some money for attending a workshop, which they failed to report to the village government nor the BMU. When it was discovered, they were dismissed from the BMU.
- (c) *Improvement of marketing system:* at the landings surveyed for this study, juvenile fish were being sold to both industrial fish processors. This cannot, of course, be sustained in the long-run, and will almost certainly lead to the demise of community-based institutions if it is not stopped. There is a need to restructure the market and negotiate with foreign buyers, as well as local consumers, in order to stop this practise.
- (d) *Institution abiding to formulated laws, bylaws and regulations:* if community-based institutions are to survive, they will need to develop laws and bylaws which should be strictly adhered to by community members. If there are loopholes, free-riding may occur. Hence, enforcement is needed, which is equitably applied. At Ihale, fishers who were connected to the fish processing factories often used illegal gear, and it was unfair when the BMU seized the nets of individual fishers, unconnected to the industries, and left the more powerful fishers alone.
- (e) *Expectation of higher benefits and rewards:* the communities visited expected to receive financial rewards once they learned that the establishment of the BMUs was connected a major international project (LVEMP). When they realised that these were not forthcoming, some BMU members resigned, and other said that they have difficulty operating effectively without financial assistance.
- (f) *Divisive leadership:* when a new Village Executive Officer (VEO) assumed office at Ihale, he claimed not to understand the role of the BMU. He claimed that the BMU was just a group of people looking after their own interests and not those of the community as a whole. Therefore, he wanted to bring the BMU under the control of the village government and, in particular, he wanted to control the funds they collected. Lack of awareness, therefore, threatened the future of the BMU. It is important for community-based institutions to have clear roles and responsibilities, which should be known by individuals and other institutions.
- (g) *Government support:* there is a need to have strong administrative, political and social support from the government if community-based institutions are to succeed.
- (h) *Internal assessments and objectives:* it is necessary that institutions should have clear objectives against which they can continuously assess and re-assess themselves. For example, objectives concerning the behaviour and ethics of leaders are important, such that if these are violated, leaders can be dismissed. If they are not, and the ethics and visions of the group are weak, then members of the institution may think such behaviour is 'okay' and follow the example of the leader.

Identification of how extension services can be delivered to fisheries-dependent communities

Amongst the various activities of this survey, it sought to identify ways in which extension services could be delivered to communities, and what varieties of services would be needed.

- (a) *Understanding the needs and demands of the community:* for extension services to be effective, the needs and demands of the community need to be identified. It seems reasonable that communities should agree amongst themselves what these may be, and that they should form the basis of their relationship with extension workers. This relationship can only be understood as an evolutionary process, developing towards trust and confidence of both parties to act upon their promises. Hence, corruption within the FD has meant that some fishing community members are reluctant to trust the FD to effectively deliver extension services, let along fisheries management outputs. By a similar token, the way in which both partners in the fisheries management relationship carries out their activities is of importance. For example, early on the formation of the BMUs, rifts occurred between the FD and the communities because of the way in which the BMUs were established. Careful consideration of both the FD's and the communities' needs and demands may have averted this difficulty.

- (b) *Acceptance of challenges and difficult situations*: Extension workers should expect to be challenged, and that each member in the management partnership may attempt to test the strength of the relationship. The mechanisms to diffuse confrontations and to rebuild mutual confidence need to be amongst the tools that extension workers bring to landing sites.
- (c) *Mobilisation of local funds for the provision of facilities*: the community and extension department should be able identify how local resources can be generated for then various activities of local institutions (and, indeed, those of the extension service), instead of relying on donor agencies. An example of where this has occurred is at Ihale, where the BMU was able to persuade a fish collection agent to build toilet and shower facilities on the beach, and at Mwasonge, where the BMU has sought ways to fund its patrolling activities.

5.3. Discussion

In this section, we synthesise what we believe to be the salient issues to be derived from the surveys at Mwasonge and Ihale, and what they tell us about community level management and the operations of the Beach Management Units. We conclude this section with comments on the lessons derived from this study and how these relate to the management of Tanzania's Lake Victoria fisheries.

The manner in which the BMUs were established was a repeated concern at both landing sites. Fisheries Department (FD) officers arrived, selected a handful of new members, prescribed their responsibilities, and then left, and exercise that typically lasted less than a day. Ihale's and Mwasonge's residents felt that greater care should have been given to discussing the roles of the new institutions and the ways in which their members were selected. At Mwasonge, indeed, several members were known fish poisoners, a revelation that forced the FD to intervene and disband the organisation.

An additional, and very serious, bone of contention was the failure of the FD to consider how the BMUs would integrate and associate with established power structures at the landing sites, particularly the village government. The conflict threatened to destroy the BMU, and it was only with some deft manoeuvring by BMU members that the crisis was averted. Of note was the nature of this conflict: the fact that the BMU was gathering revenue at the landing, and that this was not being divided with the village government.

Despite these problems, however, the BMUs have been established at these landings, and a large part of this study has been to consider their efficacy. Elsewhere (Medard and Geheb, 2000), we have raised the concern that the activities of the BMUs are more concerned with the achievement of various social and livelihood objectives (be these of BMU members or of the community as a whole), and not fisheries management or conservation objectives *per se*. At Mwasonge, the BMU sought to generate funds that would enable it to patrol set gear on the lake in an attempt to prevent theft, while at Ihale, the BMU was able to persuade a fish collection agent to build lavatory and shower facilities at the landing, which would appease the concerns of international buyers.

Such evidence as exists to suggest that BMUs have actually carried out fisheries management roles (such as seizing illegal gear at Ihale), can also be explained in terms of attempting to keep the FD happy – in many respects, such activities can, it seems, only occur at the end of an intense series of local negotiations designed to ensure that local community members understand that the seizures are aimed at maintaining the peace with the FD; failing to carry out such negotiations could, after all, result in the BMU being ostracised by the very community from which its members are derived. Which gear is seized and from whom is also a political process: at Ihale, gear provided to Ihale-based fishers by the fish processing factories was often illegal. Concerned about upsetting the fish processing factories, from whom a large part of Ihale's income is derived, was sufficient to ensure that this gear was not seized. The same was true of beach seines owned by BMU members which were, initially, allowed to continue operating; and poisoners being present on the Mwasonge BMU, and working to ensure that their activities were ignored.

There exists, therefore, a strong sense of conflicting interests between the BMU, its members and the conservation of the fisheries. These conflicts occur as follows:

- (a) between the BMU and the community: the BMU is reluctant to enforce fisheries regulations, lest they are then ostracised by their own communities.
- (b) Between the BMUs and the fish processing factories: it would be against the interests of the BMUs to prevent the landing of juvenile fish if these are wanted by the factories, given the latter's contributions to community incomes.
- (c) Between livelihood and conservation objectives: related to points (a) and (b) is the difficulty that it makes no sense to enforce the regulations if the regulations upset the community's access to livelihoods.

In addition, note should be made of the often difficult political conditions that the BMU finds itself in, and which will often determine the nature and outcome of its actions. These relate to:

- (a) the BMU's relationship with the Fisheries Department (FD).
- (b) The BMU's relationship with the community from which it is drawn.
- (c) The BMU's relationship with fish processing factories.
- (d) The BMU's relationship with municipal levy collectors; and,
- (e) the BMU's relationship with other outside sources of power and influence which may alter the nature of its relationship with the actors indicated in points (a) – (d).

These problems, and the measures that the BMUs take to try and ameliorate them, are not unusual for nascent organisations. What needs to be ensured, however, is that if BMUs are to become viable actors in the management of the fishery, they will need, firstly, to be protected from repercussions that may result from taking management-related decisions; and, second, that such protection is not abused by the BMUs so that they can take advantage of the power that this represents, and use it as a means to extort graft and inflict other kinds of abuse upon their communities.

There exists, therefore, a political economy surrounding the functions of Tanzania's BMUs. The challenge for management, therefore, is to draw upon those points where fisheries conservation coincides with social and livelihood goals. Those fisheries management goals that fall beyond this zone of converge need either to be delegated elsewhere, or else the necessary incentives and/or modifications must be put in place to ensure that the BMUs will carry them out.

5.4. Conclusions and recommendations

This study has shown that co-management depends, in part, on the existence of material, social and financial incentives. It also requires, in part, that resource management problems, such as catch declines and resource use conflicts, are observed by the partners in the arrangement. To be successful, it is important that co-management should incorporate facets such as institutional capacity-building, nurturing of the self-help spirit, the sharing of experiences amongst stakeholders and the development of collaboration and partnerships amongst stakeholders.

Political leaders need to have a stake in resources management, because continuing support from political power is required if laws are to be enforced and management gains are to be preserved. In addition, gains will be possible if resource users and the government (political leaders) have a shared commitment to sound resource management and are willing to take decisive action. It is recommended that sensitisation, the creation of awareness, education, negotiations and consultative meetings should be encouraged and applied during the process of providing communities with resource management capacities.

This study has noted that purely community-level management can be difficult in a complex situation characterised by multiple stakeholders with varied claims and interests in the resource. The 'internationalisation' of the fishery via the Nile perch export industry has meant that community involvement in its management needs to be connected to, and supported by, a wider network that ensures that their interests and responsibilities may be felt from the lake shore through to the international arena.

There exist conflicting interests among stakeholders and the institutions. To mediate those conflicts, local participation and joint decision-making of all major group users are necessary. Importantly, dialogue and negotiations must be opened amongst stakeholders. This may provide a potential avenue for resolving the more contentious issues that exist between stakeholders and within stakeholder groups.

The fact that BMUs remain answerable to the Fisheries Department (FD) but, at the same time, are not recognised by the law, could prove problematic. Under these circumstances, the responsibilities that the FD seeks the BMUs to uphold have no legal sanction under the law; they could, in fact, be illegal, and provide no conduit for communities to be involved in a mutual management exercise where their inputs, perspectives and interests are legally represented in the management process.

5.5. References

Geheb, K., Abila, R., Onyango, P., Nyapendi, A., Atai, A., Mlahagwa, E., Bwana, E. and Onyango, J.2000. Report of the PRA carried out at Ihale Beach, Tanzania. In Geheb, K. (Ed) 2000. The Co-management Survey: PRA reports from five beaches on Lake Victoria. LVFRP Technical Document No. 9 LVFRP/TECH/00/09. The Socioeconomic Data Working Group of the Lake Victoria Fisheries Research Project, Jinja.pp.5-35.

Medard, M., Mlahagwa, E., Kabati, M., Komba, D., Msunga, D. and Ngusa, D. 2000. Report of the PRA carried out at Mwasonge Beach, Tanzania, September 2-10, 2000. In Geheb, K. (Ed.) The Co-management Survey: PRA reports from five beaches on Lake Victoria. *LVFRP Technical Document* No. 9. LVFRP/TECH/00/9. The Socio-economic Data Working Group of the Lake Victoria Fisheries Research Project, Jinja: 147 - 182.

Medard, M., K. Geheb and J.B. Owuor 2001. Conflicts among resource users: the case of Kabangaja fishing and farming community on Lake Victoria (Tanzania). In Geheb, K. and Sarch, M.-T. 2002. (Eds.) *Africa's inland fisheries: the management challenge*. Kampala, Fountain Publishers Ltd.: 187-202.

Medard, M. 2000. Potentials, obstacles and incentives for co-management in Lake Victoria. *M.Phil. Thesis*. Moi University, Kenya. *Forthcoming*.

Onyango, P. 2000. Ownership and co-management: towards an integrated management of Lake Victoria. In Geheb, K and Crean, K. (Eds) 2000. The Co-management Survey: Co-managerial perspectives for Lake Victoria's fisheries. LVFRP Technical Document No. 11. LVFRP/TECH/00/11. The Socioeconomic Data Working Group of the Lake Victoria Fisheries Research Project, Jinja.: 108-115.