

**FISHERIES CO-MANAGEMENT AND ITS BENEFITS: THE CASE OF SMALL SCALE FISHERIES IN MALAWI**

Steve Donda, Department of Fisheries, Malawi. stevedonda@gmail.com

**ABSTRACT**

Fisheries management is more of human management than fish management. This is evidenced by the many fishing regulation that are developed world-wide and imposed on the fishers who harvest the fish resources. A number of fisheries management regimes have been devised and implemented to sustainably manage the world fisheries but with varied success levels. The small scale fisheries have not been exceptional in these management regime designs. The coming in of resource user participation in fisheries management or co-management have in some cases promoted sustainable utilisation of resources and fishing communities have claimed tangible benefits in their fishing activities. However, research in Malawi has shown that successful co-management implementation has its basis in the network theory. The network theory builds its explanations from patterns of relations and interactions, and it assumes man to be a social being. The Malawi study considered the basic unit in a network as being the single human being and described as an actor. An actor can also be a group of people, a department, organisation or indeed an entire community. This paper looks at the implementation of fisheries co-management in small-scale fisheries in Malawi, the benefits the fishers gain and how the network theory helps to understand and aid the successful implementation of co-management.

Key words: Fisheries management, co-management, network theory, small scale fisheries, community

**Introduction**

Fisheries management is more of human management than fish management. This is evidenced by the many fishing regulation that are developed world-wide and imposed on the fishers who harvest the fish resources. A number of fisheries management regimes have been devised and implemented to sustainably manage the world fisheries but with varied success levels. The small scale fisheries have not been exceptional in these management regime designs. The coming in of resource user participation in fisheries management or co-management have in some cases promoted sustainable utilisation of resources and fishing communities have claimed tangible benefits in their fishing activities (Donda 2011).

However, research in Malawi has shown that successful co-management implementation has its basis in the network theory (Donda 2001). The network theory builds its explanations from patterns of relations and interactions, and it assumes man to be a social being. Initially the study considered the basic unit in a network as being the single human being and described as an actor. An actor can also be a group of people, a department, an organisation or indeed an entire community. In this study, two different types of units of analysis, individual and organisation, were used depending on the level of analysis. At the relationship between the Department of Fisheries (DoF) and resource user representative body, Beach Village Committee (BVC) level, the unit of analysis was chosen as the organisation, and at the community level, the individual

was used as the unit of analysis. This combination of individuals and groups, provides dualism of groups and actors. This approach helps to understand the various patterns of interactions and decisions made in the implementation process of co-management.

For sustainable participatory fisheries management, there is need for commitment, trust and setting of a common goal shared by all management parties, as well as the need for transparency when working together. With the aid of the network theory concepts, it is easy to work around these issues, as co-managing partners tend to know and understand each other better. Fishers require those representing them to be accountable in all directions; that is, to the Department of Fisheries, their Traditional Chiefs and to them as fishers. There is also need to establish clear and commonly agreed means of communication between the co-managing partners. In such cases, the network theory helps explain how a common media of communication, meanings of words are developed through constant interactions.

### **The Network Theory**

Co-management involves the setting up relationships between the resource governing authorities (normally the state) and the fishing communities (resource user representative groups) if they have to work together towards a common goal of resource management. The setting up of these relationships requires some knowledge and application of the network theory which becomes handy when preparing for the implementation and understanding of co-management outcomes.

The network theory builds its explanations from patterns of relations (Emirbayer and Goodwin, 1994). Networks are viewed as consisting of nodes connected by relationships or linkages. The basic unit of the network is the linkage, constituting the building block of networks. A linkage, event or process is deemed to be organised if it exhibits patterns and structures (Jansson *et. al.*, 1995). The network theory focuses on the structural properties of networks within which individuals are embedded. Thus while Jansson *et. al.*, (1995) asserts that networks are formed by the behaviour of individual organisations and are thus purposively constructed, Sørensen, 1996 argues that networks are not planned. They emerge as a result of the interpretations and actions, and thus interaction, of the actors constituting the network. Therefore, following Sørensen's argument, networks are not formed, maintained, changed or dissolved according to any general laws or pre-determined pattern. A network is a social construction, created by identifiable, autonomous but interdependent actors. Sørensen further argues that, through the continuous interaction between the network actors, routines and common world views will gradually emerge and make the network stable.

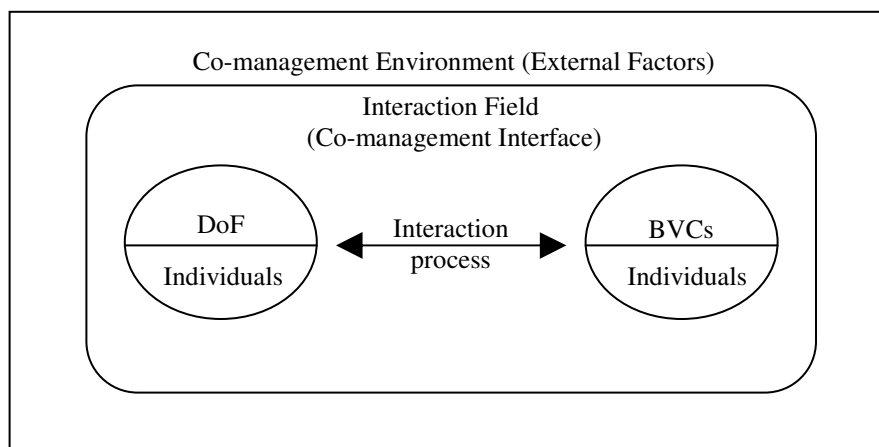
The network theory assumes man to be a social being, and the basic unit in a network is the single human being as an actor. An actor can also be a group of people, a department, organisation or indeed an entire society (Emirbayer and Goodwin, 1994; Håkansson and Johanson, 1993). In this study, two different types of units of analysis, individual and organisation, were used depending on the level of analysis. At the DoF – BVC level, the unit of analysis was chosen as the organisation, and at the community level, the individual was used as the unit of analysis. This combination of individuals and groups, according to Simmel, 1955 (in Emirbayer and Goodwin, 1994), provides dualism of groups and actors. This however, presents a potential problem to network analysis. The fact that the nature of groups is determined by the intersection of the actors within them, (i.e. by the

ties of their members to one another as well as to the groups and individuals), while the nature of the actors is determined by the intersection of groups 'within' them (i.e. by their own various group affiliations), individual and group behaviour, in this view cannot be fully understood independently of one another (*ibid.* p.1418).

The relationship in a network evolves in an organic way. It is formed step-by-step through an interaction process. Three main features of this organic process are isolated and these are: a) Social exchange: This refers to trust and commitment, and is built up over time as the evolving process is slow. Commitment is a key concept in social exchange theory and an essential concept in the network theory as well as in co-management. It may be said that it is the basis for the existence of a long-term relationship; b) Adaptations: This refers to either one or both of the involved actors to change one parameter or more. These are done partly in a conscious way and partly to solve upcoming problems in the interaction process; and, c) Institutionalisation: Refers to a situation when the two partners have had contacts for a very long time, the relationship will become institutionalised, that is there will develop routines (institutions) and sentiments giving the two counterparts a feeling of belonging together.

The process of relationship development, or the institutionalisation process is very crucial for the sustainability of the relationship being developed. This is because, whatever experiences and perceptions that the partners go through and have will be planted, or imprinted into their memories, and thereby, get embedded into the institutions that develop thereafter. Once this process is done, it may be difficult to disembed these experiences or institutions if they result in undesirable effects over the relationship.

The structure of relations among actors and the location of individual actors in the network have important behavioural, perceptual, and attitudinal consequences, both for the individual units and for the system as a whole. An oversimplified diagram illustrating the environment in which networks develop in Malawi between the Government, Department of Fisheries (DoF) and the fishing communities with their user representative organisation (BVC) is given in figure 1 below.



*Adapted from Donda 2001*

**Figure 1: DoF - Fisher co-management network relationship**

In the development of networks in any co-management set-ups, an interaction field exists where the co-managing partners interact as organizations, and as individuals within the organisations. This is characterised by four types of key interacting characters that might influence the outcomes of the co-management network arrangements. In all the co-management sites in Malawi (Lakes Malawi, Malombe, Chilwa and Chiuta ), these consist of two organisations, DoF and BVCs, and two sets of individuals under each organisation, who are DoF employees on one hand and individual BVC members on the other hand. However, there are some external factors that also affect the co-management network interaction fields, as can be viewed in figure 1 above.

In figure 1, it is obvious that DoF and BVCs as organisations, have a structure, or a system of doing things. This structure is determined by the institutions created by each organisation, which give them a specific identity and activity. The individuals in these organisations are also expected to behave according to the organisational institutions, which create the organisational culture of that particular organisation. Individuals too, have their own cultures that are also shaped by various institutions depending on where the individuals come from. Therefore, the interaction patterns that emerge between organisations are a result of different institutions acting on different individuals and their organisations. What shapes the type of interaction and networks that develop between the co-managing organisations depends on the organisational structures, the response of individuals to the organisational culture, the individuals' view of the world and the environment in which the interactions are taking place. However, the individuals based on their institutional backgrounds may have an impact on the way they run the organisations, and this is thought to be significant.

The major underlying assumption in the network theory is that the actors or partners are able to communicate effectively in order to establish any kind of relationship. It is for this reason that the theory of communicative action is briefly reviewed in this paper.

### ***The theory of communicative action***

The concept of communicative action refers to the interaction of at least two subjects capable of speech and action, who establish interpersonal relations, whether by verbal or extra-verbal means. The actors seek to reach an understanding about the action situation and their plans of action in order to coordinate their actions by way of agreement (Habermas, 1984). Habermas emphasises the importance of communication through a basic medium of language. The concept of communicative action presupposes language as the medium of reaching understanding, in the course of which participants, through relating to a world reciprocally raise validity claims that can be accepted or contrasted.

There are three worlds that are referred to, which the actor takes up relations with his speech. The first is the objective world (also referred to as the *same world*), which is the totality of all entities about which true statements are possible. The second world is known as the social world, which is the totality of all legitimately regulated interpersonal relations. And the third is the subjective world, which is the totality of the experiences of the speaker to which he has privileged access.

Of immediate interest to the current study is the social world, which Habermas (1984) explains as having:

....a particular meaning and relevance structure for the human beings living, thinking, and acting therein. They have preselected and preinterpreted this world by a series of common-sense constructs of the reality of daily life, and it is these thought objects which determine their behaviour, define the goals of their action, the means available for attaining them

Habermas argues that, the ability to communicate has a universal core, that is, basic structures and fundamental rules that all subjects master in learning to speak a language. In speaking people realise the world about them, to other subjects, to their own intentions, feelings and desires. In each of these dimensions, people are constantly making claims, for instance, regarding the truth of what they say in relation to the objective world. Therefore, communicative action requires an interpretation that is rational in approach. In each dimension there exists a 'reflective medium' for dealing with problematic claims. Because validity claims can be criticised, there is a possibility of identifying and correcting mistakes, that is, of learning from them. If this is carried through at a reflective level, forms of argumentation take shape that may be transmitted and developed within a cultural tradition and even embodied in specific cultural traditions.

The central concept of interpretation refers in the first instance to negotiating definitions of the situation that admit of consensus. In understanding or performing a speech act, participants are very much moving within their language. So long as participants maintain their performative attitudes, the language actually in use remains at their backs.

At this point the concept of communicative action takes the same path as the concept of culture. Habermas points out that cultural tradition shared by a community is constructive of the lifeworld (commonly shared world) that the individual member find already interpreted. He also asserts that cultural traditions are products of the human mind (Habermas, 1989). In dealing with the problem of lifeworld, we can think of the lifeworld as represented by a culturally transmitted and linguistically organised stock of interpretive patterns (*ibid.* p124). Language and culture are therefore constitutive for the lifeworld.

The concept of communicative action therefore, has a very big role to play in fisheries co-management, in that the co-managing partners should be able to communicate. This then calls for the development of a common language between the two sides. By so doing, the implementation process of co-management and decision making process will be transparent and legitimate to all parties concerned. For this to be achieved, there has to be continuous dialogue and interaction between the partners, that is, accelerating the development of networks between co-managing partners. The same applies to the village committees in relation to their village members, where the need for constant interaction and dialogue cannot be over-emphasised. The fact that co-management involves long-term interactions, and based on the network theory and the concept of communicative action, the end result should be an evolving of a long-term relationship, so long as the two co-managing partners have the similar goals and objectives. The knowledge of this network theory should also help the understanding of the patterns of interactions between the co-managing organisations as well as among the members of the fishing communities.

## Fisheries co-management sites in Malawi

The history of fisheries co-management in Malawi dates back to the early 1990's with the change in the sectoral environmental management policies and strategies towards the involvement of resource users in their management. This was a result of concerns arising from environmental degradation at the expense of economic development. Environmental degradation then became a serious policy issue in Malawi at the turn of the decade. The Malawi Government became increasingly concerned about the deterioration of the country's natural resources and the environment. A major environmental and developmental challenge was how to narrow the gap between the degradation of the natural resources and the environment on one hand and sustainable production and economic growth on the other. Resource user community involvement in management of the natural resources and the environment was envisaged as the most probable solution to the problem. The fisheries sector was one of the concerned sectors experiencing declining fish catches and degraded aquatic environment, hence its decision to go for participatory fisheries management.

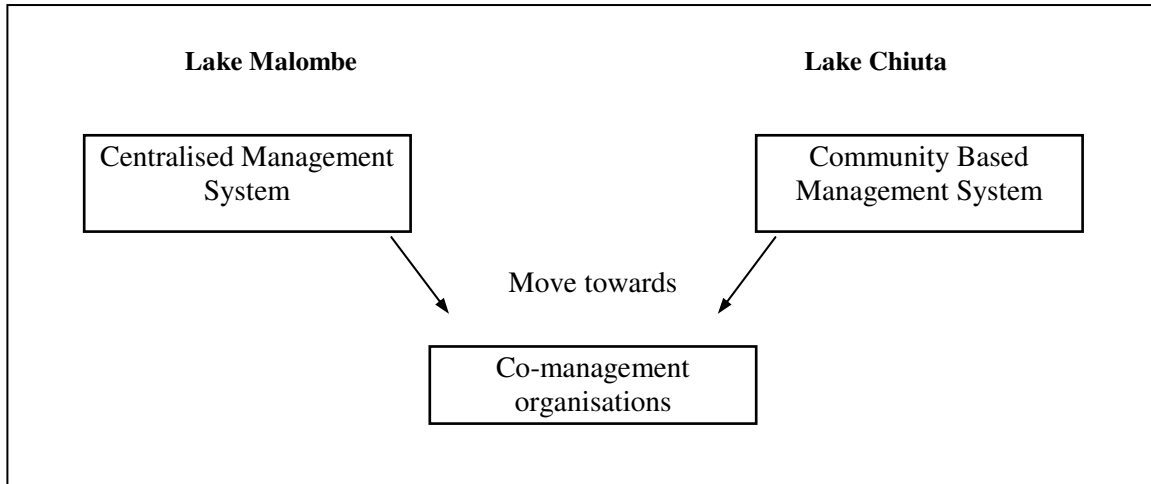
Fisheries co-management in Malawi was therefore, introduced in 1993 on a pilot scale in Lake Malombe, one of the smaller lakes in the southern part of Malawi that is linked to Lake Malawi by the Shire river which is the outlet of lake Malawi. Thereafter co-management evolved in some parts of Malawi, like in lakes Chiuta and Chilwa, Mbenje Island on lake Malawi, and was introduced in the southern part of Lake Malawi by the end of that decade.

A good example of the relevance of the network theory is how co-management developed after its introduction in Lake Malombe and how it evolved in lakes Chiuta, Chilwa and Mbenje Island. Pinkerton (1989), observed that most co-management agreements between governments and fishing interests have arisen out of crises caused by rumoured or real stock depletion or from political pressure resulting from claims that the government's ability to manage is insufficient to handle specific problems. This observation rightly describes the beginning of co-management in Lake Malombe, where it was introduced by the government because the fishery in the lake had declined tremendously; in Lake Chiuta, where co-management was initiated by the local resource users due to the failure to control entry into the fishery by the seine netters; and at Mbenje island where the local leaders interests were to preserve their traditional beliefs surrounding the fisheries at the island.

In summary, the picture emerging here (see fig 2) is that of government centralised management system moving towards co-management in Lake Malombe, and that of community based management system moving towards co-management in Lake Chiuta and Mbenje Island. What is interesting to note is that each case developed independent of each other, and all went through a moving process towards co-management. It should be appreciated that the moving process in an organisational structure requires changes and adaptation to the new format as the networking develops. This involved changes in the structures, functions, institutions and orientation of the individuals concerned.

The preceding discussions raise a few questions about fisheries management. Two of such questions are: *Who should manage the fishery?*; and *for whom should the fishery be managed?*

The three co-management cases above have demonstrated that it can either be the state (Centralised fisheries management), the user community (Community based), or a combination of the two (Co-management) that can manage the fisheries. This leaves the second question of “for whom should the fisheries be managed”? unanswered.



Adapted from Donda 2001

**Figure 2: Shift towards co-management**

Despite being the governments mandate to manage the fisheries resources on behalf of its citizens in a state as is the case in many countries, the obvious thing and the truth of the matter is that the fisheries resources are managed for the benefit of the fishing communities primarily and the rest of the country's citizens thereafter. Fishers are quite aware that fisheries resources are managed for their own benefit and have in some cases declared openly the tangible benefits they are reaping from the various fisheries resources they participate in managing. Small-scale fishers in Malawi also know that it is their responsibility to exercise caution on how they harvest fish from different water bodies for their continued livelihood support. For example, in Lake Malombe, in the process of introducing fisheries co-management, a fisher once said ***“It is for us fishermen to decide whether we want to be poor for one or two years, or whether we want to be poor forever”*** - Mr. Staubi Africa, 30/03/93, Gear owner, Chapola (Bell and Donda 1993). This was said when the participatory fisheries management programme in the lake was developing fishing regulations that were considering closing the lake to active fishing for two years. In another lake, Lake Chiuta, one of the fishers Mr Chinyama of Limera village (Nafisi BVC) Traditional Chief Chikweo, commented, ***“It is for us fishers to make a choice, either to fish irresponsibly now and live miserable lives or follow the fishing regulations and live happily there after”***. This comment came when the BVCs around the lake were formulating fishing regulations for the lake for the first time in its history.

### Benefits from Co-management

The benefits accruing from fisheries co- management can be viewed from both the co-managing partners' perspective. On the government side, this ranges from achieving the management objective of sustainable fishing, to reduced costs of fisheries management (Hanna 1995).

Experiences world-wide have proved that without support from the fishermen the chances for fisheries management regulations to succeed are very slim because fishermen almost always find ways of by-passing regulations and makes the process of fisheries management more expensive, especially through the process of enforcing the fishing regulations (Copes 1986; Hanna, 1995). On the resource user community side, as is the case in Lake Chiuta and on Mbenje Island, fishers reap tangible benefits.

Consultations with Lake Chiuta and Lake Chilwa fishers, where co-management was initiated by the fishing communities themselves and have taken it seriously give similar kind of pictures to those stories from fishers of Mbenje Island (Donda 2011). A number of fishers claim to have seen the benefits of being involved in fisheries management. They indicated that the Department of Fisheries should only play the facilitating role and give policy guidance to the management of the fisheries and let most of the ground work be done by the fishing communities because they are the ones that physically benefit materially from fishing. In lakes Chilwa and Chiuta, fishers have boasted of having been able to buy bicycles for transportation and being able to construct new houses with iron sheet roofs from fishing earnings (Donda, personal communication, 1999). At Mbenje Island, fishers have claimed to have bought vehicles and constructed modern houses with proceeds from their fishing activities at the Island. These are just some of the examples fishers gave as benefits they reap from the fisheries since co-management was introduced in their various fishing areas.

## **Discussion and conclusion**

From the preceding sections, fisheries co-management, based on the network theory, can be viewed as a social construction that end up benefiting the co-managing partners, and in which the co-managing partners or the actors (DoF and the BVCs) have a subjective world view. Hence the world can be changed by actions. This also means that future expectations, based on subjective perceptions and assessments, may be the direct result of present actions (Sørensen, 1996). Therefore, co-management should be seen as a social process through which the partners gradually and voluntarily establish close relation of long-term duration through commitment and trust. Commitment is an essential component in co-management for long-term relationships. Without commitment from co-managing partners, there will be no sustainability of co-management arrangement.

As indicated earlier on in the paper, the process of introducing and implementing co-management requires that the co-managing partners come together several times to develop their objectives and strategies for co-management. An analysis of these meetings between the partners, show that every time they meet, each partner creates expectations to the other, and each partners starts developing a way of understanding the other. In the process, each partner will be able to know what the other is capable of doing, what they mean by certain words and signs and depending on how each partner present themselves, trust, transparency, and a common world view will develop. These are the basic characteristics of the network and communicative action theories.

In this paper therefore, it is concluded that sustainability of the co-management intervention is also said to be hinged on the following major factors that enshrine the network theory. a)



Through constant dialogue with the co-managing partners, Government will enhance its understanding of the socio-economic and cultural factors of fishing communities with whom they are co-managing the resources with. The understanding of these factors is important because Government will be able to assess the potentials and constraints of fishing communities that will enable them actively participate in co-management, and thereby devolving to the partners the appropriate responsibilities that the partners have the capacity to undertake; b) Through constant dialogue with the co-managing partners, Government will accumulate valuable knowledge of local institutions and how they affect the peoples' behavior. This will greatly help Government to plan effectively how to approach and involve the fishing communities in co-management; and c) through the dialogue process between the partners, the co-management approach institutionalisation process by both the Government and its partners will take-off automatically, and this will enable both co-managing partners to develop a common language and goals for co-management. These steps in co-management are very critical to be noticed by both partners and should be harnessed so that lasting relationships and co-management processes develop for the benefit of all co-managing partners.

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