

Lake Mweru is our bank

Nettie Aarnink and Paul van Zwieten

Lake Mweru lies in the Luapula valley on the borders of Northern Zambia and the Democratic Republic of Congo. Its fishery provides food, employment and income to about 400 000 local people and supplies 40 percent of the fish sold on the Zambian market. Families in the area have a long history of combining fishing with cassava farming. However, since the early 1900s there has been a steady growth in fish trading between the lake and the towns and copper mines of Zambia and the neighbouring Congo. This has led to a heavy exploitation of the lake's fish resources and a strong inter-regional trade that increasingly overshadows the traditional local economy.

In contrast to the early 1970s when most of the fish caught were consumed locally, 70 percent of today's catch is either salted, dried or marketed fresh outside the region. Rapid population growth especially in the towns has created a big demand for fish and the recent liberalisation of the Zambian economy has made it easier for commercial interests to enter the Mweru fish market. This has resulted in considerable new investment in large vessels, fishing gear, and the development of freezing plants.

Government

Officially the Mweru-Luapula fishery is State property but in practise, it is a common resource open to everyone. The local Department of Fisheries (DoF) at Nchengele is responsible for "promoting sustained fish production and increasing food availability and employment opportunities based on the sound exploitation, management and conservation of fish stocks". However, it is difficult for the DoF to carry out its tasks because it does not receive the funds and manpower it needs from central

government. The weakness of the DoF and its inability to enforce conservation regulations has increased the problems of local fishermen who are finding it more and more difficult to adapt to the ecological and economic changes that have taken place in the fishery as a result of the heavy, unregulated exploitation of fish resources.

Local economy

The local farmer-fisher communities are made up of members of the Lunda, Bwila and Shila tribes but there are also many migrants who have been attracted to the area by its fish. Today, there are three categories of fishermen working on Mweru-Luapula. First, the owners of powerful large vessels that have the capacity to fish the lake for long periods of time, salt fish on board and act as a floating market for smaller fishing boats. Second, there are those who have earned enough money to invest in a plank boat equipped with several types of nets and a small crew, and there are the local, subsistence fishermen who set their traps along the shores of the lake and in the swamps and tributaries of the Luapula River. It is this last group of fishermen who are most at risk from the heavy and largely uncontrolled commercial exploitation of Mweru-Luapula.

Livelihood fears

Local people depend on fish for their livelihood. It is their main source of protein and fishermen usually reserve part of their catch for their families. Fish is their major 'cash crop' and is shared, bartered, and given in tribute. It 'pays' wages and settles bills. It also ensures the social and political security of the local fishing communities.

Those whose day-to-day survival depends on fish are becoming increasingly anxious about the future. Fish catches have been in



steady decline. In the late 1950s, fishers caught between 11 and 12kg of fish per 100 meters of net per night. Today, this has fallen to less than 3kg. Older people remember the huge catches of the past when young fish were thrown back into the lake to mature. Now undersized fish (*mponde nshima*) are routinely marketed.

To some extent the cassava gardens managed by the women of the household shield local families from the uncertainties of fishing. Once matured, cassava can be harvested when needed. It is, therefore, an important source of food and income and can be bartered for fish and other necessities when catches are low, nets are stolen, or when the families are in difficulties because a fisherman is sick or dies. However cassava is only one part of a fish-dependent livelihood system in an area where there are very few other sources of income.

Stakeholders

Local shopkeepers also depend on the lake. If their customers are unable to catch or sell fish there is no money to spend. Most of the shopkeepers in Mweru-Luapula started their businesses with capital they earned from fishing, trading in fish, or working on the boats. Apart from providing essential commodities, shopkeepers are important sources of credit to the local fishing communities.

Traditional authorities have also an interest in the lake. Tribute and other customary dues are paid in fish or with earnings from the fish trade. Tribute is an important part of local life and is seen as a token of respect. It ensures good relations between fishers and the traditional authorities who still have considerable power. Although the official mandate to manage the fishery is in the hands of the DoF, fishermen and traders know that chiefs have the power to 'punish' fishers who break traditional law by confiscating their fish or gear, that they can refuse to grant traders permission to enter their areas, and that they have the right to discourage inappropriate fishing practises.



Everyone has a stake in fish. Photo: Nettie Aarnink

Stakeholder action

Those with a stake in the fishery have not accepted the growing threats to their access and control of resources passively. Some local fishermen have set up fishers associations to combat net theft, destructive fishing practises and lack of support from local authorities. The first associations started in the north of Lake Mweru in the 1980s and followed the constitutions developed by Congolese fishermen. Gear registration systems were set up to protect nets and other equipment and in some places monitoring systems were established to track down stolen nets. Association members complained openly to government about their declining catch. They demanded better local management and enforcement of conservation measures by the DoF. They also wanted local councils to use some of the money collected by taxing the fish trade to provide better services and infrastructure. At the same time some associations took the initiative to educate their members about the value of conservation and the importance of obeying DoF regulations.

Other stakeholders, such as local business people and traders, also demanded better control of the fishery and action against competition - especially the freezing companies who they say "milk our fish". While shopkeepers pressed government to make funds available to enforce existing regulations and stop industrial fishing practises, consumers turned to their chiefs with complaints about the scarcity and high price of fish on the local markets, and women traders demonstrated against the closed season because it deprived them of their only source of income.

Conservation dialogue

In the early 1990s, in an effort to increase its effectiveness, the DoF changed its approach from trying to enforce government rules and regulations, to looking for more participative ways of involving stakeholders in the management of the fishery. This was a difficult and complex process for, although most of those fishing on Lake Mweru realised the consequences of heavy and unregulated fishing and respected the DoF as the "father" of the fishery, this did not encourage them to follow conservation measures. In the struggle for survival and the race for fish and a share in fishery-related profits the most common course of action was to ignore traditional and statutory regulations.

The DoF attempt to get local support for a more community-based management began with activities that aimed at helping stakeholders understand the background and objectives of the conservation process. This involved meetings and discussions

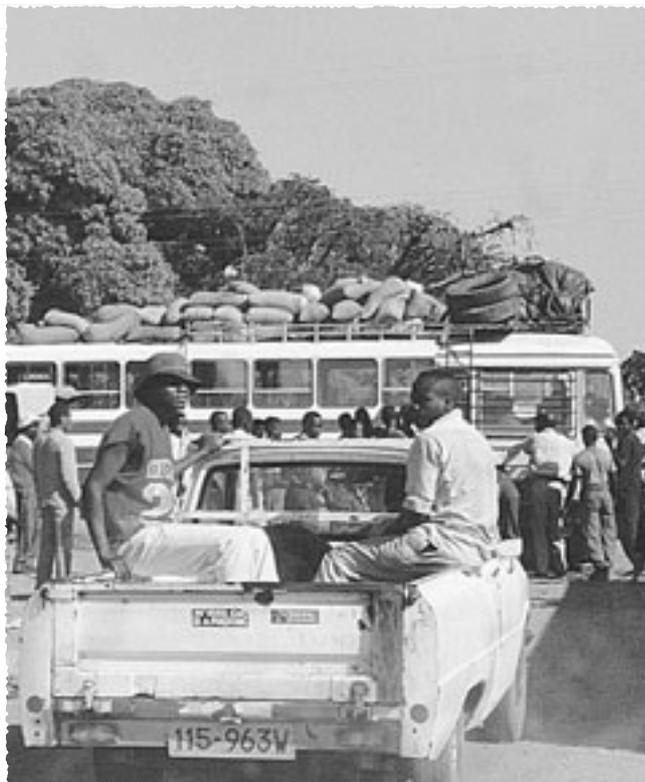


Fishermen on the shores of Lake Mweru. Photo: Nettie Aarnink

with fishers and their loosely organised and scattered fishing associations, and with traders, local business people and traditional leaders.

In 1992, as part of this conservation dialogue, the DoF organised a meeting for fishers and chiefs at which the management of the Mweru-Luapula fishery was discussed in an open and critical way. It became clear that past efforts at conservation, particularly dissatisfaction with the way in which the closed fishing season had been arranged, played an important role in people's attitude to rules and regulations. In pre-colonial times the opening and closing of the fishing season had been clearly accompanied by rituals and ceremonies. However, during the colonial period and later the country's fishery policy, including regulations relating to conservation, had often been applied in harsh and discriminatory ways or manipulated for political and economic ends.

Meetings and discussions, as well as joint field visits by staff and fishers and educative activities such as theatre, documentaries and pamphlets helped the DoF to get a clearer picture of the perceptions and concerns of different stakeholders. During participatory training and learning sessions, fishers made it clear that if stakeholders were to be involved in managing the fishery and in working out acceptable rules that were fair to everyone, the DoF should make sure they were enforced.



Fish continue to stimulate a thriving transport business.
Photo: Nettie Aarnink

Towards co-management

The experience and information exchanged during these meetings showed the DoF that there were initiatives being taken at the local level that could be developed further in a process of community-based management. Better and more frequent communication would lead to more information about social practises, strategies and resource users and how they control,

exploit, monitor or protect the fishery. As a result of the conservation dialogue process some DoF staff began to change their attitude to stakeholders and became more prepared to involve them in the conservation effort. The Nchelenge Fisheries Coordinating Committee, a management platform that included the district council secretary, the manager of one of the freezing companies, DoF staff, fishers, traders, marketers and chiefs was set up with these co-management objectives in mind.

To some extent stakeholders in Mweru-Luapula agree that the fishery should be state-regulated, provided rules are fair, applied to all, and are enforced strictly and transparently. But they also have to meet their daily needs for food and cash. Customary and social obligations have to be honoured. For many fishing families the need for short-term security may outweigh any sense of obligation to keep to externally imposed regulation that promise to protect future fishery resources but which clearly cannot be enforced.

Rethinking the balance

In Mweru-Luapula a weak DoF, a mixture of customary and statutory regulations and many, often conflicting stakeholder interests, encouraged stakeholders to ignore conservation measures. However, as the stakeholders meetings showed, there was a basis for developing a dialogue between the DoF and key stakeholders. The experience of the Nchelenge DoF has shown that in order to develop acceptable management strategies that balance the interests of local communities, commercial actors, and traditional and local authorities the DoF should:

- negotiate with all stakeholders to strike a balance between economic, social and ecological concerns
- increase its understanding of local perceptions and initiatives in management and monitoring.
- explore and monitor local ideas, strategies and initiatives. and understand how people at various levels cope with uncertainties or respond to new (external) developments.
- inform the Zambian government about initiatives for new policy, legislation and fishery management based on current trends.
- advocate an international, harmonised management framework with the Democratic Republic of the Congo, an issue strongly advocated by fisheries officers, fishers and local leaders in Zambia and the Congo.

If the DoF can maintain a fully participative approach to managing the Mweru-Luapula fishery, keep the confidence and trust of key stakeholders and receive adequate support from central government, it may be able to succeed in developing conservation measures that provide security for local fishermen and, at the same time, create opportunities for a well-regulated exploitation of the fishery potential of the lake.

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