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by INDIAN OCEAN COMMISSION

Community-based Monitoring, Control & Surveillance works in Malawi

Background

Lake Malawi is the ninth largest and third deepest freshwater lake on Earth.[1] It also is home to a diversity of fish species, than any other lake.[2] 21 % of Malawi's surface area is covered by water[3] and hence fisheries play an important role for the Malawian population in terms of employment, income generation and food security.[4]

Annually small scale capture fisheries produce and send almost 100 000 metric tonnes of fish to market.[5] These fishermen largely live in lakeside communities and engage in nearshore fisheries[6]; however, the issue of migrant fishermen has become more pronounced as individuals seek livelihood opportunities.[7] In 2003 the fisheries sector directly employed around 62 000 people and indirectly employed 350 000 people.[8] Of these figures, 57 850 people were crew and gear owners involved in capture fisheries and the rest involved in fish processing, fish trading and boat building.[9]

In Malawi fish is the preferred choice of animal protein. In 2002, fish constituted between 60 – 70 % of the national animal protein consumption.[10] In 2009, fisheries products constituted 28.4 % of total animal protein intake, well above the African average of 19.1 %.[11] Fish consumption is therefore integral in ensuring that Malawians receive sufficient protein in their diets. However, per capita consumption of fishery products in Malawi currently is low at 5.2 kg, below the African average of 9.4 kg.[12] This shows that while Malawians depend more heavily on fish for protein, they also consume less of it, demonstrating the challenge to obtain protein for many in Malawi. In fact, the 2002 State of the Environment Report cited that per capita fish consumption has declined from 10-18 kg/per capita/per year in the 1970s to the current (2002) levels of 6-8 kg/per capita/per

1 Lake Malawi/Nyasa: Experience and Lessons Learned Brief. Harvey A. Bootsma, Sven Erik Jorgensen. Lake Basin Management Initiative. 2005. http://www.worldlakes.org/uploads/16_Lake_Malawi_Nyasa_27February2006.pdf

2 Id.

3 FAO Malawi country profile. 2005. Available: http://www.fao.org/fi/oldsite/FCP/en/mwi/profile.htm (accessed 07/01/2014)

4 Nyambose, Josh. Preserving the Future for Lake Malawi. African Technology Forum, 1997. http://web.mit.edu/africantech/www/articles/Lake_Malawi.html

5 Monitoring and evaluation system for food security and nutrition policies of Malawi, 11th report of the FNSP working Group, September 2011

6 Lake Malawi/Nyasa: Experience and Lessons Learned Brief. Harvey A. Bootsma, Sven Erik Jorgensen. Lake Basin Management Initiative. 2005. http://www.worldlakes.org/uploads/16_Lake_Malawi_Nyasa_27February2006.pdf

7 Ripple Africa http://www.rippleafrica.org/environment-projects-in-malawi-africa/fish conservation-lake-malawi-africa#fishconservedocuments

8 Global Fish Alliance. The Importance of Fisheries for Food Security in Malawi. http://www.globalfishalliance.org/pdfs/Malawi_072310.pdf

9 Id.

10 Id.

11 Javier Lopez Rios, Davide Signa, Helga Josupeit. Fisheries and Food Security in the IOC-ESA Region:Country Brief Malawi. SmartFish

12 Id.

year.[13] There are multiple reasons to explain this decline, but two of the most important are the increased population and decreased level of fisheries production. Since independence in 1964 to today, Malawi nearly has quadrupled its population from only 4 million[14] to nearly 15 million people.[15] With such an increase in population there also is a correlated increase in demand for food and employment. This creates an increase of fishing efforts and pressure on the stoke of the more economically-valuable species such as catfish and chambo, which have declined dramatically,[16] The increased fishing pressure as well as the use of illegal gear, has caused Lake Malawi to be overfished, resulting in reduced catches per unit effort as well as per capita income.[17] Overall, fish production is down by almost 20,000 tons per year from a peak in 1972.[18] As the fish stocks diminish, the use of illegal fishing methods increases.

The main issues currently faced are the use of illegal fishing gear, particularly nets with small mesh size, even mosquito nets, fishing without licenses, both by local and migrant fishermen, and fishing during closed seasons or areas.[19]

Though the negative consequences of overfishing and illegal fishing are known, as are the solutions, it remains difficult to stop the behaviour, especially when fishermen rely on fishing as their livelihood and already struggle with poverty. In order to reverse the trend, there would need to be increased enforcement of the laws and regulations in place, including minimum mesh sizes, as well as sensitization of the fishermen and communities so that they better understand the need for change and how sustainable fishing would help them in the long-term. Unfortunately, the government of Malawi has not been able to enforce the regulations due to finances and limited capacity and so the illegal fishing has grown worse.[20] It is based on the understanding of this background, this need, and these challenges that SmartFish designed the following intervention to bolster MCS in Lake Malawi.

The SmartFish Intervention

Understanding the need to attack the issue of illegal fishing from the source, SmartFish joined with Ripple Africa, a non-profit based in Malawi, in order to implement a community-based MCS program along the shores of Lake Malawi. The aim of this project was to engage stakeholders, as well as other local and national governmental players, in a system to combat the illegal fishing occurring in three localities along the shore of Lake Malawi. In design, this project took a bottom-up as well as top-down approach in that it focused on sensitizing fishermen and the communities on the issues and the importance of compliance as well as enforcing the recently adopted and strengthened bylaws.

To begin, Ripple Africa, the facilitating organization, hired and trained two coordinators in order to assist with the formation and maintenance of the future Fish Conservation Committees (FCCs). In various meetings, the project was introduced to the District Fisheries Department (DFD), the Traditional authorities (TAs) (Zilakoma, Fukamapiri, and Fukamalaza) and the Chiefs for agreement on the concept and the bylaws. The Chiefs explained the project and the bylaws to their communities, including the fishermen in the area. Each Chief formed a Fish Conservation Committee made up of at least 60 % non-fishermen and based on these a Fish Conservation Umbrella Committee was established for each TA area. The FCCs received training by Ripple Africa and the DFD over a period of two months and this training continues along with monthly reporting and planning meetings. The FCCs were charged with coordinating and holding ongoing meetings with their fishermen and Chiefs, collecting information about all fishermen at each beach landing site in their area (to be maintained at the Ripple Africa office) and to develop plans to confiscate illegal fishing gear, at times with the assistance of Ripple Africa, the DFD and the police. Once the bylaws were signed by all three TAs, they became effective immediately and the MCS operations began.

The first confiscations were organized and carried out by the FCCs in conjunction with the DFD, the police and Ripple Africa and they have continued regularly since. So far 61 illegal fishing gears have been confiscated, including one trawler net, and 12 fishermen have been taken to court, of which ten were charged and fined. These confiscations and fines were announced on national radio to serve as a deterrent to others and make sure it was known that the enforcement efforts are being taken seriously. The FCCs also are responsible for regularly monitoring the fishermen, fining those that are caught fishing illegally, and referring those who have not paid their fines to court. Furthermore, the FCCs are responsible for collecting the local permit fees. Recently, monthly meetings have been held with the DFO, judiciary, police, and sometimes the TAs to ensure that cases are being appropriately reviewed and reported.

In addition, eight natural breeding sites for Chambo have been identified and protected from those attempting to fish for the Chambo fingerlings.

Thus far the project has been a success, as is reflected by the number of confiscations, fines and meetings within the local communities; however, besides the facts, the personal testimonies may say it best:

"I've never seen this many small Chambo fish in this area since the late 1970s" – The Chairman of Chiwana Fish Conservation Committee.

Lessons Learned

- Projects that involve local communities require patience and time to establish
- When the goal is to improve the management of a natural resource such as fisheries, the local communities that rely on the natural resource must be engaged from the beginning and empowered. For this reason, it was imperative to establish FCCs and to insist that the confiscations and enforcement actions are led by them, with assistance provided upon request.
- It is imperative to invest time into training and educating the FCCs, each of which must have a committed and motivated chairperson to drive the project.

- The project successes need to be shared with the communities, stakeholders and other FCCs so as to encourage continued support for the project. The most effective way to do so was by airing on the radio.
- Any illegal activity needs to be brought before the court quickly and the fines or charges need to publicised on the radio so that the community members and fishermen know that fisheries bylaw enforcement is being taken seriously.
- Though it is only natural to want to adopt the whole project quickly, it is more successful to start by focusing on certain aspects of the project, for example, the protection of fish breeding sites, the confiscation of illegal nets and developing real ownership of the fisheries by the local community.
- The science behind each fishery needs to be understood and reflected in the bylaws as best as possible. It is crucial to study the effectiveness of the bylaws in relation to the ultimate project goals and to be willing and able to adjust them accordingly.
- Government support for the project is invaluable.

Conclusions/Recommendations

While there have been many challenges in combatting illegal fishing, this community-based MCS initiative, facilitated by Ripple Africa and funded by SmartFish, has been successful by engaging the community, fishermen, traditional leaders, as well as the various governmental stakeholders. While there have been noticeable improvements in the fisheries in only one year, there remains tremendous potential for continued improvements based on the following recommendations:

Continued implementation of the project within the three TA areas, including the further sensitization of the fishermen and communities and further enforcement operations such as the confiscation of illegal nets.

Expansion of the areas of focus of the current program such as an increased emphasis on local permits by the FCCs in collaboration with the authorities handling national permits.

Eventual expansion of the project to additional districts around Lake Malawi, continuing the district-level focus and approach.

13 Global Fish Alliance. The Importance of Fisheries for Food Security in Malawi. http://www.globalfishalliance.org/pdfs/Malawi_072310.pdf

14 Nyambose, Josh. Preserving the Future for Lake Malawi. African Technology Forum, 1997. http://web.mit.edu/africantech/www/articles/Lake_Malawi.html

15 Kurien J. and Lopez Rios J. 2013: Flavouring Fish into Food Security: FAO. SmartFish. Mauritius. 165p.

16 Lake Malawi/Nyasa: Experience and Lessons Learned Brief. Harvey A. Bootsma, Sven Erik Jorgensen. Lake Basin Management Initiative. 2005.

17 Id.

18 Global Fish Alliance. The Importance of Fisheries for Food Security in Malawi. http://www.globalfishalliance.org/pdfs/Malawi_072310.pdf

19 Ripple Africa http://www.rippleafrica.org/environment-projects-in-malawi-africa/fish-conservation-lake-malawi-africa#fishconservedocuments

20 Lake Malawi/Nyasa: Experience and Lessons Learned Brief. Harvey A. Bootsma, Sven Erik Jorgensen. Lake Basin Management Initiative. 2005.

IOC-SmartFish is a regional fisheries programme managed by the Indian Ocean Commission, funded by the European Union and co-implemented by the Food and Agriculture Organization of the United Nations. IOC-SmartFish, which operates in twenty countries throughout the Indian Ocean Region, Southern and Eastern Africa, focuses on fisheries governance, management, monitoring control and surveillance, trade, and food security.

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Co-implemented by
Food and Agriculture Organization of the United Nations

Funded by
the European Union