



Economic liberty with fish farming



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FRANCISCO BITSON MWAMTOBE

In recent years, most districts in Malawi including Mangochi have been greatly affected by the adverse impacts of Climate Change particularly prolonged dry spells and devastating floods. The country's once fertile soils have been degraded by floods resulting in heavy siltation of rivers and lakes. Sedimentation pollutes critical fish breeding habitats whilst unpredictable rainfall patterns negatively affect cropping systems and patterns.

Agricultural productivity has been negatively affected by the climate change phenomenon. Suffice to mention that the entire agriculture sector has negatively been impacted, as well as other related sectors. Mkawa village (in Traditional Authority Mponda in Mangochi) has not been spared from this scourge for long time now. Mkawa is an upland village, located some 40km away from the southern end of Lake Malawi, largely dependent on smallholder farming as its livelihood activity and not fishing which is traditionally the key livelihood activity in the district.

"Fishing is significantly the backbone livelihood of the district but recently there has been a downward trend in fish catch in the lake due to over-fishing and high siltation of fish breeding areas," according to Rev. Moses Chimphepo, the District Commissioner. This has not only affected the local fishermen but also many Malawians including Mkawa village.

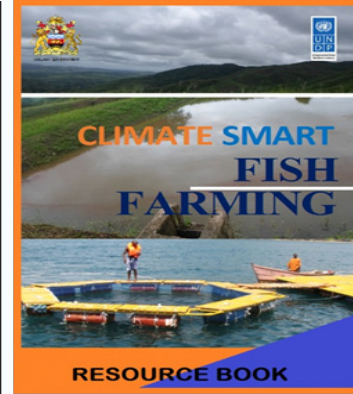
With these persistent negative impacts in the mind, a group of 10 villagers from Mkawa set on Fish Farming in 2015 as a strategy to increase productivity and become resilient in case climatic related shocks hit the area. **"We heard of fish farming enterprise on the radio and realized that we had resources for the initiative, an ideal land that holds water and a river that never runs dry from where we could divert water. We thus thought of venturing into the business,"** explains Chimwemwe Nkosi, Chairperson of the group.

They, however, lacked the expertise of running fish farming as an enterprise. They consulted the Fisheries Department in Mangochi, one of the key implementing sectors under Climate Proofing Project (CPP) being implemented in six hot spots in Mangochi and Machinga districts with funding support from UNDP and Global Environmental Facility (GEF).

In 2016, CPP reached out to the community at Mkawa Village. Through the project, a Fish Farming Group was established. Through professional guidance from Fisheries Department, the members manually constructed a Climate Smart Fish Pond as one of the Best Practice promoted under the project. The pond was stocked with fingerlings sourced from the National Aqua-Culture Center in Domasi. The committee was further assisted with initial fish feed sourced from MALDECO



Climate Smart Fish Pond at Mkawa



Climate Smart Fish Farming Resource Book Produced under CPP



Fish Feed being locally processed



Fish harvest from Mkawa pond



Patrick Mbwana displaying his goats



Zayinabu Gayesi showing the goats she bought

Fisheries.

The Climate Smart Fish Farming Resource Book presents a unique intervention for promoting climate smart fish farming in Malawi in general, but specifically in Machinga and Mangochi where it is being piloted.

Today the Committee at Mkawa has been trained to locally produce fish

feed using locally available materials. In addition, the group has been trained in Integrated Livestock-Fish Culture System.

"There is only one type of fish, Makumba (Oreochromis shiranus), in this pond and we chose it because it has high fertility rate and requires less feed unlike other fish species like

Chambo (Tilapia) fish that survives well in sandy environment and mlamba (Clarias gariepinus) which needs more feed," the vice chairperson explains.

Fish Farming coupled with another initiative promoted under CPP namely Village Saving and Loans (VSL) is transforming the lives of the group

members by improving income security of the group members. Earnings realized from fish harvests are revolved into VSL where members borrow more and make it grow through interest attached to it.

"The first time we harvested fish we realized approximately MK100,000.00 and the second time we realized twice as much," explains Patrick Mbwana, the Secretary. "The money had been invested in VSL where we (group-members and non-members) borrow money and repay a loan with an interest rate attached," Nkosi added.

The fish Pond, plays a significant role to the Mkawa community for food and economic benefits. Besides, it has also solved the problem of scarcity of fish in the community which was putting the people at nutritional risk as fish is the cheapest source of proteins. **"We used to struggle to source fresh fish and mostly we could access poilage fish but with the availability of this pond, people are accessing flesh quality fish in the vicinity,"** said Zayinabu Gayesi, member of the pond.

The members are also investing the money grossed via VSL in diverse things like buying livestock and buying fertilizer to supplement organic manure for crop production.

Gayesi said **"I invested the money by buying fertilizer and also two goats that have reproduced such that I now have four in total"**. Besides Gayesi, Mr. Mbwana also invested the money in livestock - bought a goat that bred 1 offspring such that he now has two goats. These goats are very important because they provide manure used as pond fertilizer thereby boosting the growth of planktons that the fish feed on.

The money is circulating within the community improving the economic status of the community members. This in turn is ensuring forest regeneration as they are not burning charcoal to source the income which was a common trend in the past. Through CPP, Mkawa village has excelled in alleviating economic hardships and responded well to the adverse impacts of climate change.

The Government of Malawi recognizes the significant impact climate change is posing to various sectors, including Fisheries. Aquaculture has especially been affected by reduced precipitation, flooding, increasing water temperatures among others. Department of Fisheries has reviewed the Fisheries and Aquaculture Policy to mainstream emerging issues that includes climate change. The production of Climate Smart Fish Farming Resource Book is a direct response to this policy direction.

Besides upland fish farming and VSL, CCP is promoting several adaptation interventions including gully reclamation and afforestation in order to reduce land degradation to support sustainable agriculture and resilient community livelihood. ■

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