

Introduction of New Fish Species for Improved Aquaculture Production in Malawi: Policy Implications for Fish Biodiversity Preservation and Management



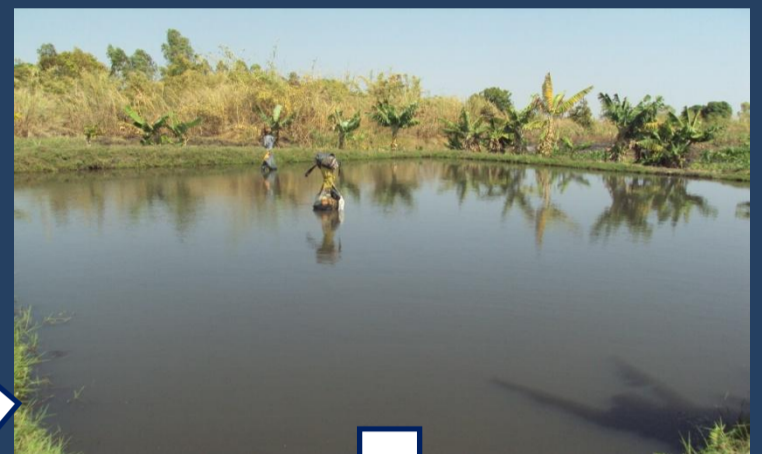
LAKE MALAWI - FACTS:

- ✓ Found in Malawi (southern Africa)
- ✓ The 8th and 3rd largest freshwater lake in the world and Africa respectively
- ✓ About 30,000 km² (11,600 sq miles)
- ✓ By far the only lake in the world with the highest fish species biodiversity – over 800 species
- ✓ About 95% of the fish species in Lake Malawi are endemic to the lake (not found anywhere else in the world)



- ✓ About 15% of the global total freshwater fish species are found in Lake Malawi alone!

- ✓ However, fish stocks in Lake Malawi have tremendously declined to meet consumer demand due to unabated heavy fishing pressure
- ✓ Apparently, all efforts by government to restore the stock appear unattainable
- ✓ Aquaculture in Malawi has great potential and promises to be a viable alternative to supplementing the dwindling fish stocks from the capture fishery



Inherently slow growing indigenous fish species attaining no more than 150g in 6 production months remain the greatest challenge to aquaculture development in Malawi



? A Quest for better and fast growing species



The Problem

- ✓ The Government Fisheries and Aquaculture Policy in Malawi strictly bans introduction of non indigenous species to preserve the cherished biodiversity in Lake Malawi
- ✓ This is against the background that the catchment of Lake Malawi lies in neighbouring countries where such policy is not in force as far as introduction of fish species is concerned
- ✓ Fish species greatly sought for by farmers in Malawi are freely raised in these countries for example, *Oreochromis niloticus* (Nile tilapia) in Tanzania just a few kilometres away from the northern tip of Lake Malawi; and **Common carp** is found in Zambia and unconfirmed cases in Mozambique.



After many years of little or no profit in Fish farming due to slow growing and small sized indigenous fish species, fish farmers and stakeholders in Malawi are looking for **Answers** to these **Questions**:

1. Is it worthy banning raising of fish species while others are raising the same in the catchment of the lake you are protecting?
2. What would be the likely consequences of any introduction into the lake?
3. Was the introduction of Nile perch into Lake Victoria an economic, environmental curse or a blessing? What lessons can be learnt?
4. What is more important – the biodiversity or the biomass in the economic welfare of the people?
5. Are there any known environmentally friendly better growing fish species that can be allowed into Malawi without harming our long cherished species biodiversity?
6. Are there other short term ways of improving growth of the inherently slow growing and small sized indigenous fish species to improve aquaculture in Malawi? (SAVE hybridization which has not brought any meaningful results)