

## **The State of Cage Fish Farming in Uganda: Actors, Enabling environment, Challenges and Way forward**

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### **Abstract**

Though fish cage farming in Uganda has been existing; there is new emphasis to introduce it in natural water bodies like lakes due to the decline in catches from capture fisheries blamed on open access. Piloted on Lakes Victoria and Katwe, the results are promising. Actors include government, international donors, like Belgium through Belgian Technical Corporation (BTC); local governments, individuals, youth groups and non-governmental organisations. Actors have expressed certain patterns of interactions and practices including collaboration, for example, developing capacity by BTC; protecting rights fishers to use water bodies as a public good; and undertaking cage fish farming as private business enterprises by individuals. There are favorable policies like the National Fisheries Policy, and the liberalization of fish seed production, and open access to information have boosted cage fish farming. The lack of involvement of fisher folks who use water bodies their resources for sustainable livelihoods, need urgent attention.

**Keywords:** fish farming, cage, actor, capture fishery, livelihood

## **1.0 Introduction**

### **The sector**

Cage fish farming also called 'offshore farming' viability studies were first conducted in Uganda in the 1990s at the National Fisheries Resources Research Institute (NaFIRRI). Pilot studies were later done by the government of Uganda under the Uganda – China Friendship Agriculture Technology Centre. This was a measure to find ways of boosting fish production on Lake Victoria. The benefits include: - (1) Boosting fish harvest has, for example, according to Liu Guanghu, the head of the cage culture pilot project there has been an increase by a minimum of 12 tonnes of fish every year from 50 rack cages in Jinja alone compared to 300,000 tonnes caught from the 31,000 sq.km of Lake Victoria in 2011 (Figure 2); (2) controlled fishing and yields is achieved; (3) controlled lake access to reduce fishing mortality; (4) improved income and cheap source of animal protein to those involved in the project. Cage fish farming of mainly Tilapia is expected to be rolled out to all water bodies including ponds in Uganda to increase the supply of fish. On Lake Katwe, the Belgian Technical Agency under the Belgian Technical Corporation (BTC) and the Kasese Local government under the Kasese District Poverty Reduction Program (KDPRP) piloted cage fish farming technology.

## **2.0 Actors, their attitudes, practices and interactions**

### **2.1 Main actors**

In Uganda, cage fish farming include main actors like The Government of Uganda (by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) via NAFIRRI and the local governments), private investors donor agencies like BTC, tertiary training institutions like Fisheries training Institute, Makerere University, Nkumba university and Busoga University; Non-Governmental Organisations (NGOs), local craftsmen; and smallholder farmers who have established cages in their ponds. The successful piloting has attracted private investors like Mr. Aga Ssekalala Senior (Figure 1) and Prophet Samuel Kakande. Aga, for example, has up 250 cages on Lake Victoria. However, so far, focus has been put on establishing cages on lakes compared to other water bodies. The range of actors has not has been limited to people or groups with a large capital base leaving out the fisher folks who entirely rely on the lakes for their livelihoods.

**Figure 1** A harvest from fish cages. Photo by AFP (The New Vision May 30, 2014)

**Figure 2** Some of the fish cages set up in Jinja. Photo by Joshua Kato (The New Vision May 30, 2014)

## 2.2 Attitudes and practices of the main actors

The Government giving priority to private investors to develop the lakes, a public good, has left fisher folk communities vulnerable to displacement and food insecurity. Some private investors like Prophet Samuel Kakande found a lot of resistance from the local populations when preparing the site at Bukakata on Lake Victoria to establish his fish cages. The locals blocked the roads and removed the mark posts. Kakande was granted security since he felt he was the rightful owner of that section of the lake after being granted permission by the government whilst the local population felt that they are illegally displaced and their source of livelihood grabbed.

Some NGOs like the National Association of Professional Environmentalists (NAPE) contested the government's position to give away a public good. The NAPE executive director commented that: *"The lake is a public good, so when they start demarcating it and making some portions of it no-go areas for some fishermen, then this is a case of deprivation of their rights,"* The New Vision May 30, 2014.

Some government institutions like local governments have welcomed cage fish farming technology as a way to fight poverty and improve rural livelihoods. In Kasese, on Lake Katwe the trials which involved the local fishermen have been successful ([www.btctb.org](http://www.btctb.org)). The yield has attracted a number of fishers to participate in the project in a number of ways including constructing cages from local materials and old canoes. Thus, the local community, donor agency and government have worked together and so far no conflicts have been reported in Kasese district.

## 2.3 Patterns of interaction

The sector has been generally successful at trial stages and continues to grow in order to revitalize dwindling fish stocks. However, the rate of adoption by the public is still low exacerbated by the poor relations amongst them. So the Mr. Aga is having the largest number of cages on Lake Victoria. NAFIRRI on the other hand has continued to diffuse the technology and the response by prospective entrepreneurs is ever increasing. The individual private investors like Mr. Aga has

helped to encourage others through various business for a like local televisions and radios to join the cage fish farming. He is one of the Uganda's respected entrepreneur owing to the fact that he owns a radio station, Chicken farm (UgaChick), processes animal feeds including fish feeds among other investments. Whereas those establishing cages on lakes envisage monetary benefits, to the riparian communities, the lakes are more than sources of money. Lakes provide employment either directly or indirectly, source of food, provide cultural symbols like totems, cultural sites and many rituals are done at the lake. Thus, the concerns of the poor have not been integrated into the technology and hence its diffusion, adoption and adaptation are likely to progress slowly. NAFIRRI is responsible for spreading this cage technology and groups of farmers have embraced the innovation though the processing of operating licenses from MAAIF is slow.

### **3.0 Enabling environment for cage fish farming**

The government of Uganda favors aquaculture as embedded in the vision for the Uganda's fisheries sector is, 'an ensured sustainable exploitation and culture of the fishery resources at the highest possible levels, thereby maintaining fish availability for both the present and future generations without degrading the environment'. More specifically, Policy Statement No. 9 states that, 'Aquaculture fish production will be increased so as to reduce the gap between fish supply and the increasing demand for food fish' (MAAIF, 2004). The government had set a target of increasing aquaculture production increase to 200% from an estimated 2000 tonnes in 2004 to 100,000 tonnes by 2014, this was a commitment to enable and support to this sector. In addition, up until the late 1990s when the government decided that seed production should be privatized, all fish farms (aside from the government stations) were grow-out farms. Since then, specialized private grow-out farms and hatcheries have evolved (SARNISSA, 2009), hence there is seed (young fish) availability to support the cage fish farming. Information on fish farming is readily accessible through local districts' Government Fisheries staff, the National Agricultural Advisory Services, staff from tertiary institutions, other farmers, and private consultants. In addition, a lot of information is also obtained through the media; local radio programs on FM stations and newspaper articles. Donor agencies like BTC have continued to support rural development programs including fish farming.

#### **4.0 Way forward**

Though there is a great potential for aquaculture in Uganda owing to the fact that 18% of the country is covered by water (Isyagi, 2001), the sustainability of the new fish cage technology will depend on a clear policy streaming how the public goods like lakes and rivers will be used without ignoring the interests of the surrounding communities. In addition, the government and its partners need to continue supporting youth groups by ensuring that the recently introduced youth funds reaches the intended beneficiaries; and also train more youth on using local materials to construct fish cages.

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**Figure 2** Some of the fish cages set up in Jinja. Photo by Joshua Kato (The New Vision May 30, 2014)