

Green Youth Conservation Uganda Global Giving Project

Project Title: Livelihood harnessing through innovative Tilapia cage culture project in Entebbe Municipality.

Project Description and Summary

Green Youth Conservation Uganda seeks **12000\$** to fund an innovative cage culture tilapia project for the members and the surrounding community; the project will serve **90** people including their families; subsistence fishermen, women and youth groups in Entebbe municipality, teaching them to take advantage of the economic tools and opportunities presented by the water resources surrounding us. The project intends to produce a total of **90,000** Tilapia fish in a period of 12 months. The project shall first establish 10 demonstration fish cages that will be a focal point for training members and interested groups; we hope that members shall be able to replicate the fishing techniques on their own on Lake Victoria.

Our vision: We aim to be the centre of excellence in the development of cage fish farming.

Mission: Our mission is to promote and develop aquaculture as an efficient tool for food security, economic empowerment and marine life conservation.

The project shall focus on development of model fish cages for farmer to farmer technology transfer and to provide the necessary training and supplies, and means to help group member, subsistence fishermen; women and youth groups increase the potential of fish farming to meet social, economic and nutritional needs.

Cage culture is an aquaculture production system where fish are reared in floating net cages. Fish are placed in the lake to raise and protect them until they are harvested when they reach market size.

Problem Statement

Fish resources are currently at risk due in part to environmental pressures, bad fishing practices and demand resulting from international and local demand for fish. Nile Tilapia (*Oreochromis Niloticus*) represents a significant part of that demand. This demand for fish is currently met by wild capture with all manner of fishing methods which are frequently unsustainable and illegal in most cases, like fish poisoning and indiscriminate fishing.

The traditional fishing on Lake Victoria has been an environmentally destructive practice and economically unsustainable as stocks have declined due to over fishing resulting from both international and local demand for tilapia fish and use of un acceptable fishing methods. Environmentally, the traditional methods used have been known to be destructive to marine habitants and highly non selective, catching millions of immature fish. Besides, the tradition fishing has given highly unpredictable results to subsistence fishermen and this has not improved on the social & economic well being of subsistence fishermen.

Consequently, efforts have been made to develop innovative, sustainable, alternative methods for producing tilapia. One emerging alternative is cage culture; Aquaculture has proven to be a self-sustaining fish farming initiative specifically designed to enhance food production, produce a nutritional food resource for the alleviation of hunger and malnutrition and encourage community economic sustainability with a marketable product.

GYCU aims to improve Tilapia fishery management in Wakiso and Entebbe Municipality. The organization is to use a cage culture system of aquaculture. Cage culture is an aquaculture production system where fish are reared in floating net cages. This alternative ecological aquaculture model provides a path to sustainable fish production thus assisting local communities with their transition from a dependency on destructive capture fisheries to a model of economic and environmental sustainability.

GYCU hopes to develop long lasting improvements for the local communities in terms of basic economic or social conditions and ecosystems, as well as a model for tilapia rearing and conservation.

The uniqueness of the approach compared to other approaches

The traditional fishing methods and life on Lake Victoria has been an environmentally destructive practice and economically unsustainable as stocks have declined due to over fishing resulting from both international and local demand for tilapia fish and use of un acceptable fishing methods. Environmentally, the traditional methods used have been known to be destructive to marine habitants and highly non selective, catching millions of immature fish. Besides, the tradition fishing has given highly unpredictable results to subsistence fishermen and this has not improved on the social & economic well being of subsistence fishermen.

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Financial return:

The Economic feasibility of 10 cages of the project will be as follows:

Production area	7m x 7m x 10m x 10cages
Culture period	8-9 months
Survival Rate	90%
Average Body Weight	350g
Average yield at the end of the project:	9000Fish x 10= 90,000 fish
Farm gate price:	5000Ugx/1pounds per kg
Anticipated tonnage:	Assuming 4 fish make a kilogram=90,000 divide by 4fish =22500kgs/ 22.5 tones
Anticipated total sales from the 10 cages	22,500 x 5,000= 112,500,000/28125pounds

Expected return	112,000,000Ugx/28125pounds

The fund share be used to implement the following activities as stipulated by month during the implementation period as indicated below;

Months 1 to 3.

- Mobilize local community, experts and do community awareness of the project.
- Identify field sites where cage fish farming techniques could be first implemented.
- Inspection and certification by fisheries experts.
- Procure materials and equipment required for setting up model demonstration of cage fishing methods.
- Prepare a progressive report

Month 4 to 7

- Selection or hiring of technical project staff and inducting the organization staff about the project.
- Organize a training to explain cage fish farming methods and systems and their advantages to members.
- Fixing of cages into the lake
- Procuring of fish fingerlings and fish feed
- Delivering fingerlings into the cages
- Feeding and monitoring fish growth
- Prepare a progressive report

Months 8 to 10

- Feeding and monitoring fish growth continues
- Negotiating for possible buyers or markets
- Conduct Field Day inspection at the demonstration site for other members and interest group to observe the methodology so that they can transfer the technology system.
- Prepare a progressive report

Month 11-12

- Fish harvesting and marketing.
- Analyze findings and results and draw preliminary conclusions.
- Prepare final report and submit terminal statement to the funder

Key risks to the success of the innovation and the assumption to addressing them

Risk 1: The project is likely to face the risk of uptake by the local community members, because majority are using the traditional fishing methods which don't require a lot of technology.

Risk 2: The project is also going to face the risk of phasing out after the project ends, since a small number will have been in the piloting phase of the project.

Risk 3: The project will face the risk of natural biological facts especially when the projected

returns don't match the actual returns, maybe due to the ecology of water and other natural factors

Assumption and how to address the risk: People willing to learn and apply the practices taught using the materials and methods demonstrated. The Project will use the demonstration cages to roll out to other farmer on the principal of farmer to farmer technology transfer.

Assumption and how to address the risk: Local and national system enabling mobilization and maintained to support implementation of the activities. The project will take into consideration the use of the available structures and systems in place to integrate in the project activities

Assumption 3: The local leadership willing to partner with the project implementers for the sustainability of the project. Also the leadership will to integrate this activity in their work plans. The project will renew available Memorandum of Understanding and enter in new ones for those whom the implementer thinks will contribute technically to the success of the project.

Three ponds hatchery

Machine that makes the fish feeds which makes the production cost effective