



TILAPIA PRODUCTION IN FISH CAGES



This project was a collaborative effort of the Cordillera Highland Agricultural Resource Management (CHARM) Project through the Extension Support Services Unit, the Department of Agriculture-Bureau of Fish and Aquatic Resources (DA-BFAR), and the Municipal Government of Kapangan, Benguet Province.

Rationale:



The cost of importing fish products from outside the municipality is restrictive. Fortunately the Municipality of Kapangan, particularly Barangay Cuba has the potential in producing fresh tilapia. The Amburayan River runs through the middle of the Cuba and supplies not only the irrigations needs of the barangay but also its water requirement for other domestic activities. The climatic condition of the area is favorable as well for the production of tilapia fish.

The Ginintuang Masaganang Ani, Fisheries Program of the Department of Agriculture supports the development of fresh water fish production in inland communities like the Cordilleras to help reduce poverty incidence in these areas. Therefore, in response to the request of the farmers association in Cuba, the CHARM Project, the DA-BFAR and the Municipal Government of Kapangan agreed to co-sponsor the

production of tilapia in fish cages along the Amburayan River.

Objectives:

The project aimed to:

- Promote and enhance tilapia fish production using fish cage technology;
- Supplement supply of fish in the municipality; and
- Augment the income of farm families who will be engage in tilapia production.

Methodology:

From the Barangay Natural Resource Management Plan, priority projects or needed assistance as identified by the people in Barangay Cuba were considered one of which is the need for other sources of income. The preparation of the proposal was facilitated by the Office of the Municipal Agriculturist of the municipality to seek the assistance of the CHARM and DA-BFAR.

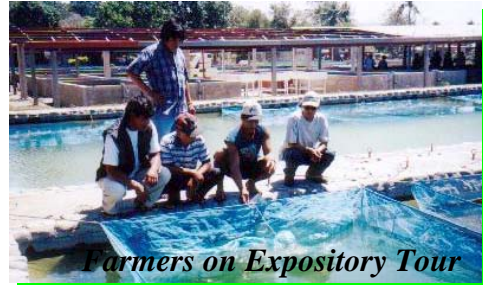
Training and an expository tour were attended by the members of the farmers association who are interested in producing tilapia. On October 2002 fish cages were constructed in strategic sites along the Amburayan River.

Each fish cage measures four meters by five meters wide with a depth of 2.5 meters made out of bamboo poles and polyethylene nets. The cages were later stocked with 2000 pieces of size-14 Tilapia *nilotica* fingerlings with 500 fingerlings each fish cage.

Feeding of the fish fingerlings was the responsibility of the farmer-cooperators based on what was taught them during the training. Monitoring of the fish growth and the overall project implementation were done by the former-cooperator and the assisting technicians from the Office of the Municipal Agriculturist and the CHARM.

Program Results:

- Training on Tilapia fish culture was conducted together with an expository tour for interested farmers.
- Four units of fish cages were built in four strategic sites along the Amburayan River.
- Bamboo poles which are locally available were utilized and prove more economical than manufactured floats.
- Tilapia fish fingerlings were procured by the project and distributed to the farmer-cooperators.
- Local technicians were mobilized to assist in the planning, implementation and monitoring of the project.



Project Impact:

- It was proven by the farmer-cooperators themselves that tilapia production in their Barangay is feasible. Tilapia fish (*Tilapia nilotica*) can thrive well in the waters of Amburayan River together with the indigenous species, like eels, crabs, shrimps and other fish species.
- There is now an additional and profitable source of income for the farmer-cooperators unlike before that they depend on farming. Producing tilapia fish in floating cages require a small fraction of the farmer-beneficiaries time. They estimated that they only spent at most one hour a day to tend to the fish. The rest is devoted to their farm or other activities.
- The economic uses of the river were more appreciated by the farmers and that they sought for the protection of the same from water pollutants.
- The sustenance of the indigenous species thriving in the Amburayan River is ensured since the community can produce their fish requirement instead of catching these species.
- During fishing season more sustainable methods were encouraged and used. This was done originally to protect the tilapia fish cultured in the cages but



unknowingly to the community these methods have positive effects on the sustainability of the indigenous species.

Future Potential:

- Tilapia fish production in Barangay Cuba and its adjoining Barangays that are similarly situated along the Amburayan River is promising. However, relevant policies and support must be provided by both the Barangay and Municipal Governments towards the development of the industry and protection of the Amburayan River.
- The tilapia fish production industry can be a source of additional income not only to the farmers but also a source of revenue for the Municipal Government.