Piloting sea bass cage culture as an alternative livelihood for the fishing communities of Maduganga estuary

Objectives
This project had three objectives:

1. to raise the living standards of coastal communities in Maduganga;
2. to promote sustainable use of marine and coastal resources; and
3. to introduce sea bass cage culture.

Background
Sri Lanka possesses the resources and potential to develop a sustainable aquaculture industry in its coastal belts. These areas suffer from poverty and food shortages, so inland aquaculture could contribute to enhancing food security. It could also increase employment and provide additional income for local fishing communities. The Maduganga estuary, a brackish water system in Sri Lanka’s wet zone lowlands, has great ecological importance. The water quality of the estuary makes it ideal for culturing *Lates calcarifer*, also known as the giant sea perch, sea bass or barramundi. This fish fetches a high market price locally and internationally, grows quickly, and survives in most conditions, making it a good choice for rearing in the estuary. The cage culture system allows water to circulate freely, keeping operational costs low. The species is inexpensive to maintain and relatively easy to produce, and the eco-friendly nature of this activity makes it a good source of income for local communities.

Target beneficiaries
Four traditional fishermen from the community-based Ampe Mithuru Freshwater Fisheries Cooperative Society in Maduganga.

Outputs
- Establishment of pilot cage culture using floating nets.
- Transferral of technology for intensive culture of finfish to fishermen.
- Generation of economic growth and indirect employment.
- Reduced exploitation of local mangroves and wildlife.

Accomplishments and challenges
Through the project, beneficiaries were able to develop another source of employment and income besides sea fishing. The target fishermen learned how to rear sea bass and gained skills and knowledge in efficient fish management systems. The cage-reared sea bass reached a weight of 800 g in just four months thanks to good feeding practices. The additional income from sea bass rearing has indirectly helped to reduce pressure on nearby mangroves. Fish farming is also contributing to alleviating local poverty sustainably since it has low operational and environmental costs.
Challenges
Some difficulties were encountered in selling cage-reared fish, including obtaining a good market price. There was no direct marketing system to sell the fish, so fishermen had to deal with middlemen who paid below-market prices. It was also difficult to find a buyer for the entire stock as fish wholesalers offered better prices; however, it was possible to get a good price for a partial harvest.

Lessons learned
It is essential to identify an appropriate market and develop a strong marketing strategy before embarking on an activity of this nature. Also vital is appropriate technical support is vital. The Sewalanka Foundation committed itself to supervising and monitoring the project, and to providing support for bookkeeping, fish farming techniques and related matters.

Neighbouring fishermen have followed the lead of the project and begun to set up fish cages of their own. This extension effect will help to increase economic development in the area.

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“Young fishermen, who were totally dependent on the estuary resources for their survival and who were unhappy about their incomes, were initially recruited for the project. It is good to see them continuing fish farming even though the donor funding and other support have ended.”

— MRS MAHEENI SINGAPPULI
NATIONAL FISHERIES COORDINATOR,
SEWALANKA FOUNDATION