

Success story of a progressive hatchery: Transforming small-scale fish farming into a profitable aquaculture enterprise in Dakshin Dinajpur, West Bengal

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Aquaculture has emerged as an important growth sector in West Bengal contributing significantly to rural livelihoods and employment generation. This case study is an entrepreneurial success story of Mr. Amrita Das, a progressive fish farmer of Dakshin Dinajpur district, West Bengal, who converted a small-scale fish farming activity into a profit-making hatchery enterprise. He adopted improved breeding, nursery management and fish seed production technologies especially for catfish species with technical support from Dakshin Dinajpur Krishi Vigyan Kendra. This success story is an example of how scientific aquaculture, institutional support and entrepreneurial innovation can be a boon for sustainable fisheries development, rural employment and socio-economic upliftment.

Keywords: Cat fish, Entrepreneur, Fish farmer, Fish hatchery

MR. Amrita Das, a 36 year old fish farmer from the state of West Bengal has contributed commendably towards fisheries development through his own unique efforts. His success is a story of fruitful endeavours, painstaking trials and above all, self-confidence, which has earned him the long awaited acclaim in ways more than one.

Drawing inspiration and technical support from Dakshin Dinajpur Krishi Vigyan Kendra (KVK), Mr. Amrita Das set up his brainchild, 'M/S Hare Krishna Fish farm' in Dakshin Dinajpur district, and the returns that he reaped never made him look back ever since. He has established a compact farming unit, comprising of nursery pond brood stock ponds hatcheries. His accomplishments have provided much needed employment to many and he dreams of aqua-eco-tourism for earning foreign exchequer for his country on the sprawling three acres of water area that his farm covers.

Background

Born in a resource poor family in mid of 1980s prevented him from accessing formal education beyond middle school. Amrita picked up the strings of his father's profession, that of culture of Indian Major Carp in small pond. Little Amrita, by his helpful nature started to help his family in pond culture task so that at the end of the day, could add a penny or two more to feed the four hungry mouths at home. From 2008 to 2009, Mr. Amrita worked in the pond but with the little earnings, it was very hard to bear the family expenses. Looking for a way to increase their earnings, they started selling fingerlings he had bought with the little extra income he had saved. In 2012, Mr. Amrita started a nursery pond with hatchlings he had bought from a nearby hatchery. It was the beginning of his hatchery enterprise.

After a prolonged struggle with destiny, his tireless efforts turned the unproductive water bodies into productive ones which were owned

by him also. Little did anyone know at that time, he would turn them into a goldmine! By this time, his father had lent helping hands to him, which raised his spirits further and within a few years he multiplied profits, enough to expand his fish culture. The family also started to join hands with him to expand the once small venture into a booming profitable one.

The young and old in his area applaud his achievements. Many government organisations, NGOs and universities are taking turns to bring out his story as an example.

Efforts of KVK in promotion of fish farming

To overcome the problems of seed availability of cat fish, an attempt was made by the Dakshin Dinajpur KVK to produce seed of cat fish in low cost hatchery in a participatory mode. During 2005-06, it was tried in the hatchery of Bisu Tudu, a fish farmer of Mahala village of Balurghat block and it was proved to be a success. Then the State Fisheries Department



View of fish hatchery



Hormone injection to mature cat fish for breeding



Stripping of female fish for egg collection



Fertilisation of egg

seed production practices learned through training programmes and practical experience. Brood fish are maintained in separate ponds and provided with quality feed to ensure proper growth and maturation. During the breeding season, healthy brooders are selected and induced breeding is carried out using recommended hormone injections.

After breeding, eggs are collected and fertilised under controlled conditions. The fertilised eggs are transferred to hatchery cisterns where continuous water flow is maintained for proper development and hatching. The newly hatched larvae are then shifted to nursery ponds and rearing tanks. Regular feeding, water management and health monitoring are carried out to achieve better survival and growth. After attaining the required size, fry and fingerlings are marketed to fish farmers from different parts of the district and neighbouring areas.

A bigger business

Since the establishment of the hatchery enterprise, Mr. Amrita Das has witnessed continuous growth in production and sales. The technical

of the district was contacted. Inspired with the success of the *magur* seed production in the low cost hatchery, District Fisheries Department organised awareness-training programme for selected rural youths in collaboration with the KVK. Krishi Vigyan Kendra went on its effort in simplifying the breeding technique. Then the technique was employed with some modifications from that of Bisu Tudu's hatchery in the hatchery of Md. Ainul Haque, a hatchery owner from Mehendipara village of Harirampur Block in 2006-07 in collaboration with State Fisheries Department. This time hatching percentage was also improved. The experience of KVK in participatory *Magur* breeding in 2005-06 and 2006-07 was very encouraging. However, the technique was employed in 2011 by young and energetic fellow Amrita Das of Hili block of Dakshin Dinajpur district with much simplification and its success was much higher than the previous. This simplified technology can be used by any farmer.

Amrita received training in nursery management, quality fish spawn production, feed and brood management, brood rearing and breeding techniques. He learnt the procedure to inject hormones into

the cat fish brood stock to release matured eggs and milt (semen of a male fish).

Hatchery operation and fish seed production

The hatchery is operated using standard fish breeding and

Table 1. Cost of cultivation and cost-benefit analysis

Particulars	2020-21	2021-22	2022-23
Annual production (No.)			
Fish seed	200 billion	340 billion	580 billion
Fish fry/fingerlings	10 million	40 million	70 million
Annual quantity marketed (No.)			
Fish seed	180 billion	320 billion	560 billion
Fish fry/fingerlings	6 million	35 million	65 million
Annual value of service provided (₹ lakh)			
Fish seed	30.0	45.0	55.0
Fish fry/fingerlings	12.0	11.0	16.0
Total cost (₹ in lakh)			
Fish seed	20.0	27.0	38.0
Fish fry/fingerlings	7.0	5.0	6.0
Gross return (₹ in lakh)			
Fish seed	30.0	45.0	55.0
Fish fry/fingerlings	12.0	11.0	16.0
Net return (₹ in lakh)			
Fish seed	10.0	18.0	17.0
Fish fry/fingerlings	5.0	6.0	10.0
B:C ratio			
Fish seed	1.50	1.66	1.44
Fish fry/fingerlings	1.71	2.20	2.66



Fertilised eggs in cisterns with continuous water supply



Fry of magur

fish farmers and unemployed rural youth. Through these programmes, he shares practical knowledge and technical skills related to hatchery management, fish seed production and scientific aquaculture practices.

- Krishak Samman award in 2017 from the Government of West Bengal
- Billionaire award in 2023 by Krishi Jagran
- ISO 9001:2015 certification for Quality Management System to Hare Krishna Fish Farm by Otabu Certification Private Limited

These recognitions have motivated him to further expand his hatchery enterprise and work towards conservation-oriented breeding programmes for indigenous and endangered fish species. Through continuous liaison with scientists and technical experts from KVK and the Department of Fisheries, he remains committed to adopting modern technologies and promoting sustainable aquaculture development.

Social and employment impact

The success of 'Hare Krishna Fish Farm' has generated substantial social and economic benefits for the local community. The enterprise has emerged as an important source of employment and livelihood support in Dakshin Dinajpur district.

Approximately 500 people are directly benefited through the activities of the fish farm. Around

knowledge acquired through training programmes and practical experience enabled him to expand his business operations year after year.

In 2015, he diversified his activities by producing and marketing fry and fingerlings of several commercially important catfish species, including *Magur* (*Clarias batrachus*), *Singhi* (*Heteropneustes fossilis*), *Pabda* (*Ompok pabda*) and *Tangra* (*Mystus tengara*). The increasing demand for quality fish seed and fingerlings provided further opportunities for business expansion.

The profits generated from fish seed production were reinvested in expanding hatchery infrastructure and aquaculture facilities. Since 2019, Mr. Das has added nine new ponds covering approximately 35 acres for breeding, nursery rearing and fish production activities. He has also established 52 concrete tanks, installed oxygenation facilities and expanded brood

stock maintenance units to increase production capacity.

The quality of fish seed produced by the enterprise has earned the trust of fish farmers across the district and neighbouring areas. As a result, the demand for his fish seed and fingerlings continues to increase every year. His commitment to quality production, timely supply and technical support has contributed significantly to the reputation of Hare Krishna Fish Farm. Today, the enterprise has emerged as one of the prominent hatchery enterprises in Dakshin Dinajpur district and serves as a successful demonstration unit for aspiring aquapreneurs.

Recognition and awards

Recognising his expertise and outstanding contribution towards fisheries development, the Department of Fisheries, Government of West Bengal, has entrusted Mr. Amrita Das with conducting training programmes for



Haul of cat fish



Harvesting of cat fish for marketing

100 individuals are engaged as traders and retailers associated with the marketing of fish seed and fingerlings. In addition, the enterprise provides employment to 30–40 technical and non-technical personnel involved in hatchery operation, brood stock management, nursery management and fish harvesting activities.

Mr. Das is also actively involved in the sale of fish feed, medicines and aquaculture inputs supplied by reputed companies. He acts as a service provider to fish farmers across the district and earns additional income through these activities. His willingness to share knowledge and provide technical guidance has encouraged many resource-poor farmers to adopt scientific aquaculture practices and

improve their livelihoods.

SUMMARY

The progress achieved by Mr. Amrita Das shows that fish farming can become a profitable enterprise when scientific knowledge is combined with dedication and hard work. Starting from a modest background, he successfully expanded his activities from pond fish culture to commercial fish seed production and hatchery management. The training and technical support helped him improve his skills and adopt better production practices.

Today, Hare Krishna Fish Farm has become a reliable source of quality fish seed and fingerlings for farmers in the region. The enterprise has created employment

opportunities, generated income for many families and encouraged other rural youth to take up aquaculture as a profession along with helping in capacity building by sharing his knowledge. The achievements of Mr. Das provide a practical example of how fisheries-based enterprises can contribute to livelihood improvement and rural development. The case of Mr. Amrita Das is an inspiring example for young entrepreneurs and fish farmers throughout the country and shows that with perseverance, innovation and scientific management, one can achieve remarkable success in the fisheries sector.

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