



## Cage culture a success story of a fish farmer of Anand district in Gujarat State

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**Abstract:** Cage aquaculture involves the growing of fishes in existing water resources while being enclosed in a net cage which allows free flow of water. Cage aquaculture has become popular in the country. Fish farmer of Anand district in the Gujarat State has recently successfully cultured fish seed of pugnacious in three cages each of 6 x 4 x 4 meters. He achieved production rate of more than four metric ton per cage. This is first of its kind in Anand district.

**Keywords:** fish feed, Harvesting, cage, fish seed

### Introduction: -

Today cage culture is receiving more attention by both researchers and commercial producers. Factors such as increasing consumption of fish, declining stocks of wild fishes and poor farm economy has increased interest in fish production in cages. Many small or limited resource farmers are looking for alternative to traditional agricultural crops. Aquaculture appears to be a rapidly expanding industry and it offer opportunities even on a small scale.

Cage aquaculture involves the growing of fishes in existing water resources while being enclosed in a net cage, which allows free flow of water. It is an aquaculture production system made up of floating frame , net materials and mooring system (with rope ,buoy , anchor etc.) with a round or square shape floating net to hold and culture large number of fishes and can be installed in reservoir , river , lake or pond. A catwalk and handrail is built around a battery of floating cage. Economically speaking cage culture is a low impact farming practice with high returns and least carbon emission activity.

In view of the high production of attainable in cage culture system, it can play a significant role in increasing overall fish production in India. The design of the cage and its accessories can be tailor-made in accordance to the individual farmer's requirements.

### Cage culture practice in Gujarat state :-

Fishermen of south Gujarat and middle Gujarat State have already initiated cage culture practice to boost fish production in reservoirs and lakes.

Now recently, for the first time, Mr. Ashraf Memon, a progressive fish farmer of Anand district has successfully adopted cage culture in his village pond. So far, he has successfully harvested three crops from cage culture.

Previously, he was facing difficulties in harvesting fish from his village pond, as the pond is quite deep. To come out from this difficulty, he initiated floating cage culture practice in village pond. He started with three cages, each of 6 x 4 x 4 meters.



**Success story of cage culture in Anand district :-**

Name of fish farmer: Mr. Ashraf Memon

Name of village pond: Gamadi, Taluka: Anand, District: Anand

Size of the cages: 6 x 4 x 4 meters

Material used in fabrication of cages :

monofilament nets, sealed PVC drums and bamboos.

Cost of cages :

Each cage costs Rs. 1.50 lakhs and accordingly three cages cost Rs. 3.50 lakhs.

Variety of fish cultured in cages:

Scientific classification:

Kingdom : Animalia

Phylum : Chordata

Class : Actinopterygii

Order : Siluriformis

Family : Pangasidae

Genus: Pangasius

Species: Pangasius

Binomial name of fish: *Pangasius Pangasius* (Hamilton 1822)

Size of fish seeds stocked: 3 to 5 inches

Number of fish seeds stocked: 4500 numbers in one cage

Cost of fish seed : Rs. 5 per fish seed , so per cage Rs. 4500 x 5 = Rs. 22,500 and for three cages Rs. 67,500

Culture period : 300 days

Feed type : Floating feed

Feeding time : Morning and Evening ( two times )

Cost of feed per fish : Rs. 45 per fish

Total cost of feed: For one cage Rs. 45 x 4500 fish seed = Rs. 2,02,500, For three cages : Rs. 45 x 13500 fish seeds = Rs. 6,07,500

Fish production at the end of crop period : i.e. after 300 days

For one cage : 4200 Kilogram

So, for three cages: 12,600 Kilogram

Value realized per Kilogram : Rs. 100

Rs. 1,20,000 watch and ward (two attendants )

Total value realized :

Total Rs. 1,45,000

For one cage = 4200 x Rs. 100 = Rs. 4,20,000

So for three cages : 12,600 x Rs. 100 = Rs. 12,60,000

Net profit from all the three cages :

Other expenses for all the three cages

Value realized Rs. 12,60,000 minus total expenditure Rs. 8,20,000 (seed,feed,medicine,electrical bill,watch & ward) = Rs. 4,40,000

Rs. 12,000 electricity bill  
Rs. 13,000 medicines etc.



**Advantages of case culture :-**

- Easy to install
- Better control of fish population
- Effective use of fish feed
- In emergencies it can be removed from one place to another
- Harvesting is simple
- Help to maintain the non-seasonal supply of fish
- Since the case is meshed, fish inside have less chances of being attacked by predators.



❖ **Summary :-**

Mr. Asharaj Memon is the first aqua culturist who has successfully initiated cage culture practice in Anand district and it has positive impact on the other aqua culturist of the districts. Mr. Asharaj Memon is a role model for the entire aqua culturist community of the area.

References:

- (1) Personnel interview of Mr. Asharaj Memon, the fish culturist.
- (2) Discussion with fisheries department officials.
- (3) Websites of National Fisheries Development Board, Hyderabad
- (4) Website of Central Marine Fisheries Research Institute, Cochin