



# SEABASS FARMING : AN AVENUE FOR ADDITIONAL REVENUE

## PICTORIAL HAND BOOK

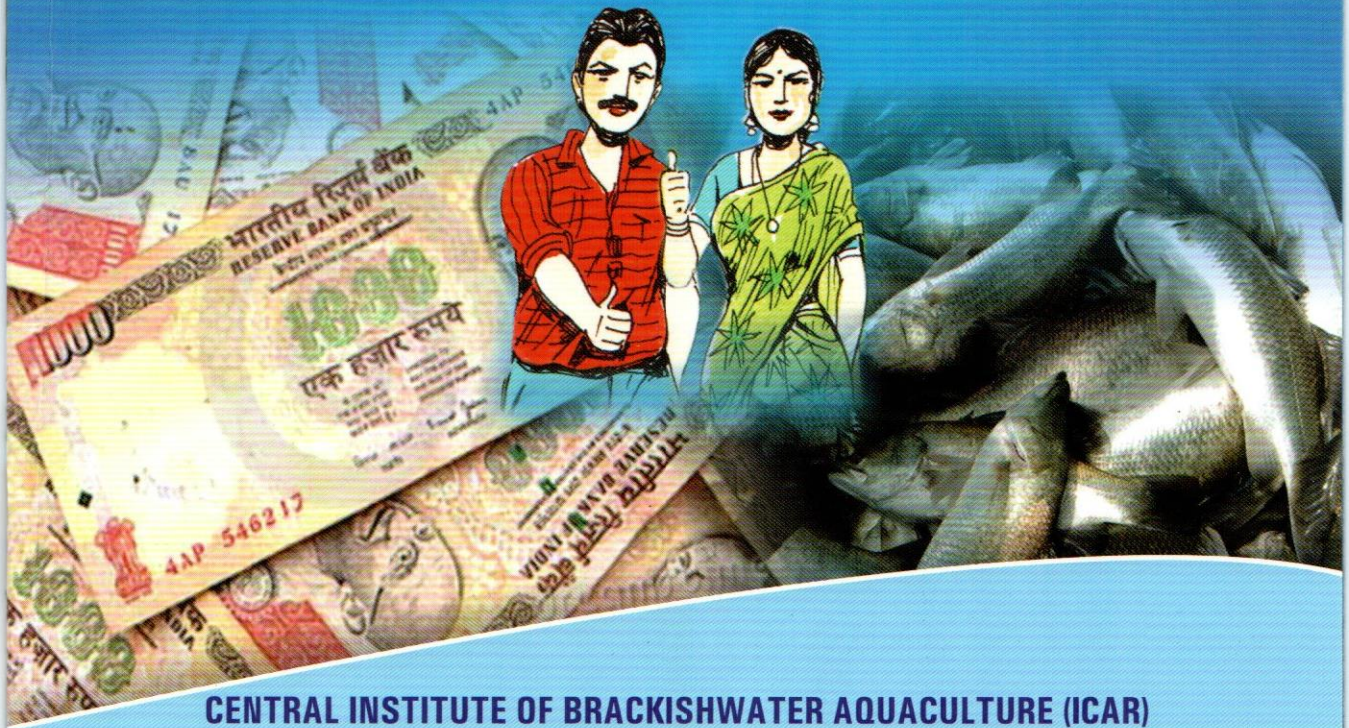
**Dr. (Mrs). D.DEBORAL VIMALA**

**Dr. A.R.THIRUNAVUKKARASU**

**Dr. M.KAILASAM**

**Dr. M.KUMARAN**

**Dr. T.RAVISANKAR**



**CENTRAL INSTITUTE OF BRACKISHWATER AQUACULTURE (ICAR)**

75, Santhome High Road, R. A. Puram,

Chennai – 600 028





Published by : **Dr.A.G.Ponniah**

Director  
Central Institute of Brackishwater Aquaculture (ICAR)  
75, Santhome High Road, R. A. Puram,  
Chennai – 600 028



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## FOREWARD

In this pictorial hand book titled “**SEABASS FARMING : AN AVENUE FOR ADDITIONAL REVENUE**” means let us culture seabass, sure, our life will be enriched! Many important information regarding farming of seabass in different culture systems is presented in simple manner in the form of a story. This hand book describes culture of seabass based on the performance of various trials conducted, in such a way to make one and all to understand. It is indeed an innovative initiative in technological expansion to say the least.

This pictorial hand book which contains many valuable information about seabass fish farming would surely help the people who are engaged in aquaculture especially self help groups, farmers, non government organizations, academicians, researchers etc.,

I sincerely wish and hope that the technical knowledge, skill and expertise highlighted in this pictorial hand book on seabass farming would reach those engaged in aquaculture and enable them to achieve great heights by following the novel initiatives.

My wholehearted congratulations to the authors for jointly making this pictorial book possible.

Place : Chennai – 28

Date : 11.03.14



A.G.PONNIAH

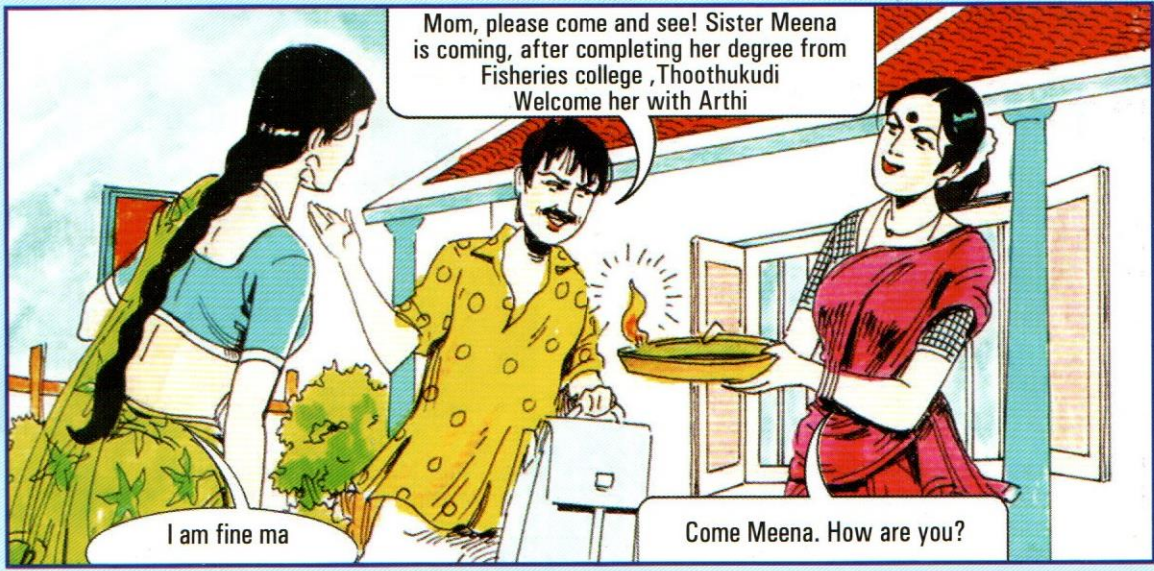
Director



Hey dear!  
You look so worried as if  
the whole world is lost!

Valli there is no rain, no crop and no harvest,  
we don't have any alternate job in hand  
and nobody is coming forward to help us.  
All these are troubling me.

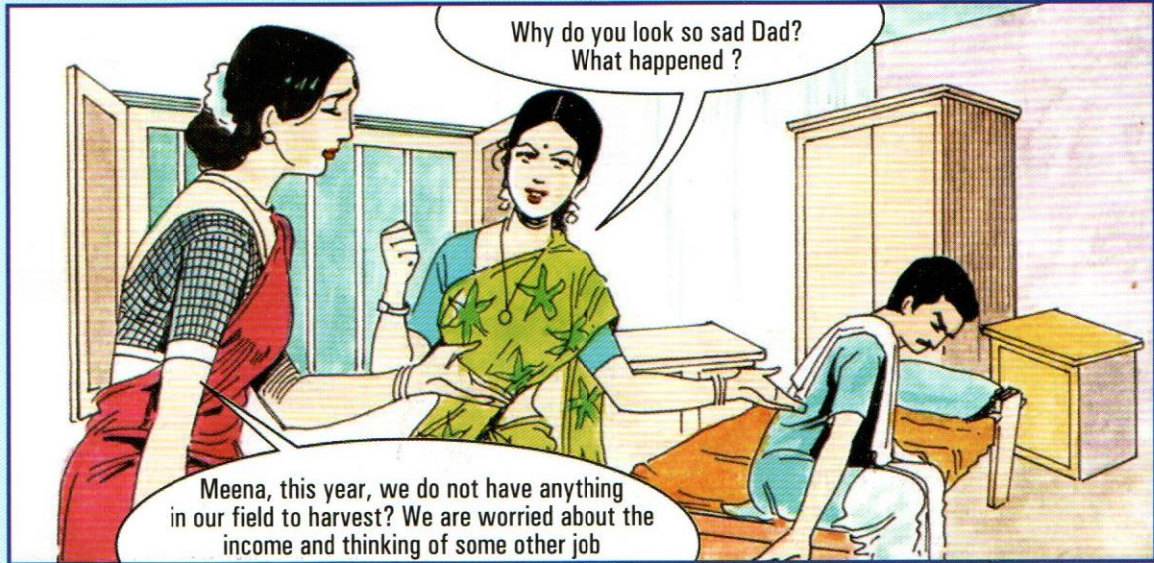
Don't worry you have talent  
and ability to work hard.  
We can find out some alternative  
jobs. Don't be sad



Mom, please come and see! Sister Meena  
is coming, after completing her degree from  
Fisheries college ,Thoothukudi  
Welcome her with Arthi

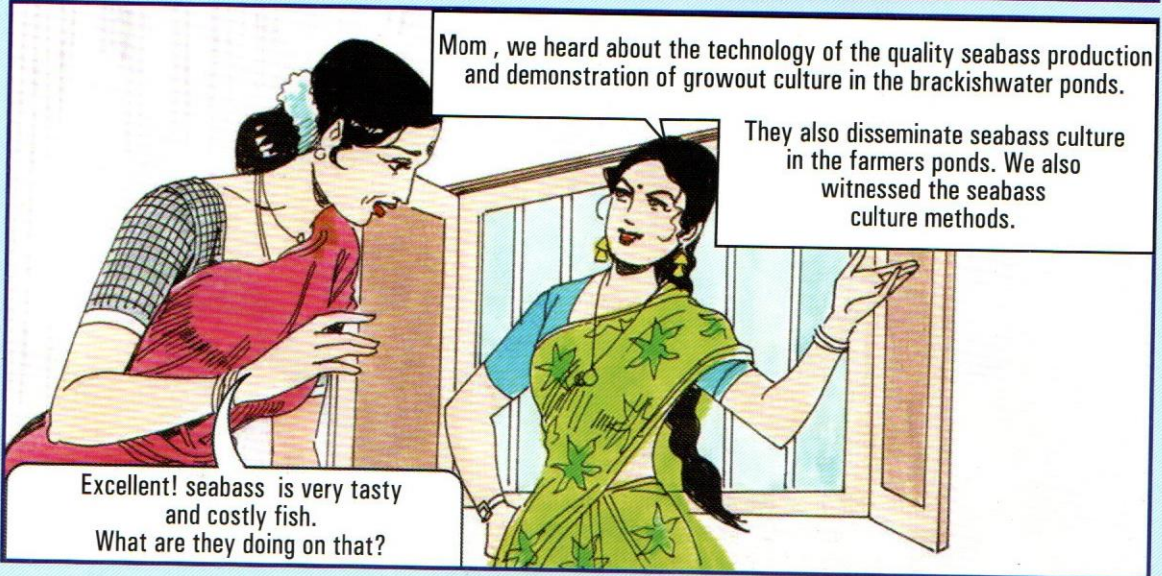
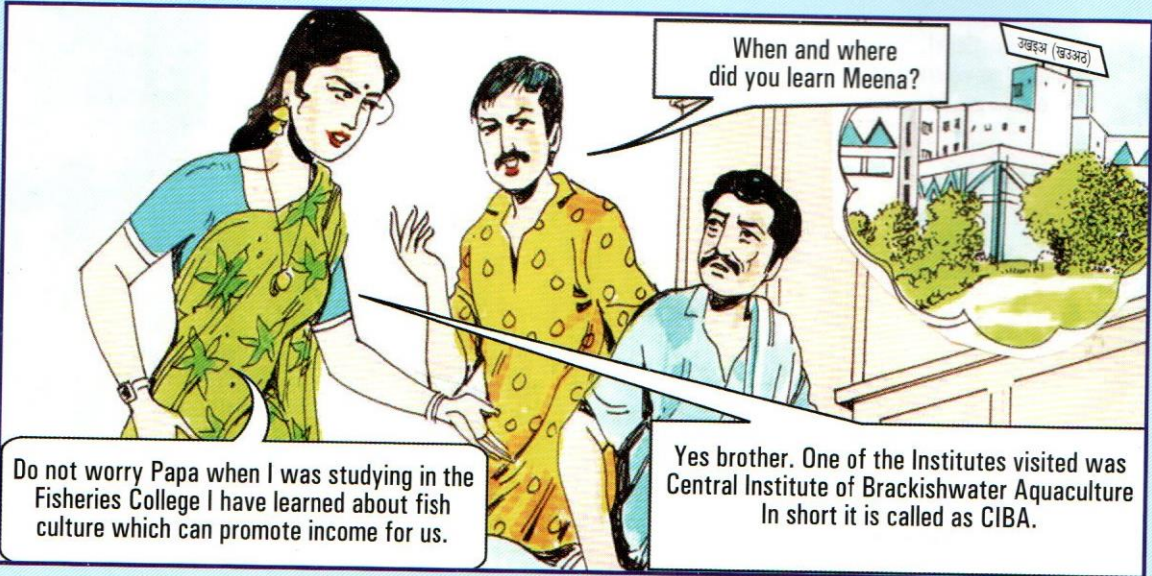
I am fine ma

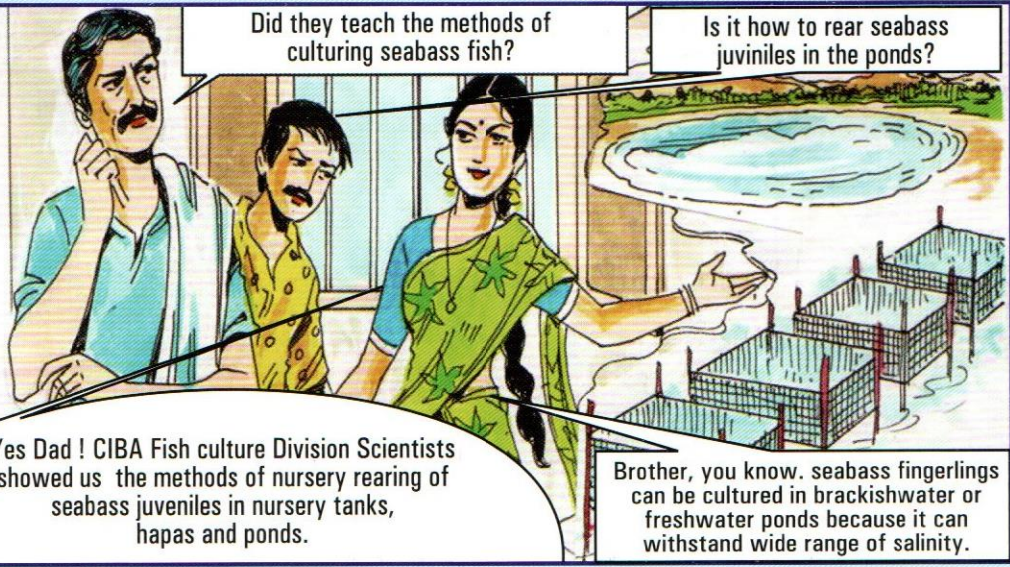
Come Meena. How are you?



Why do you look so sad Dad?  
What happened ?

Meena, this year, we do not have anything  
in our field to harvest? We are worried about the  
income and thinking of some other job



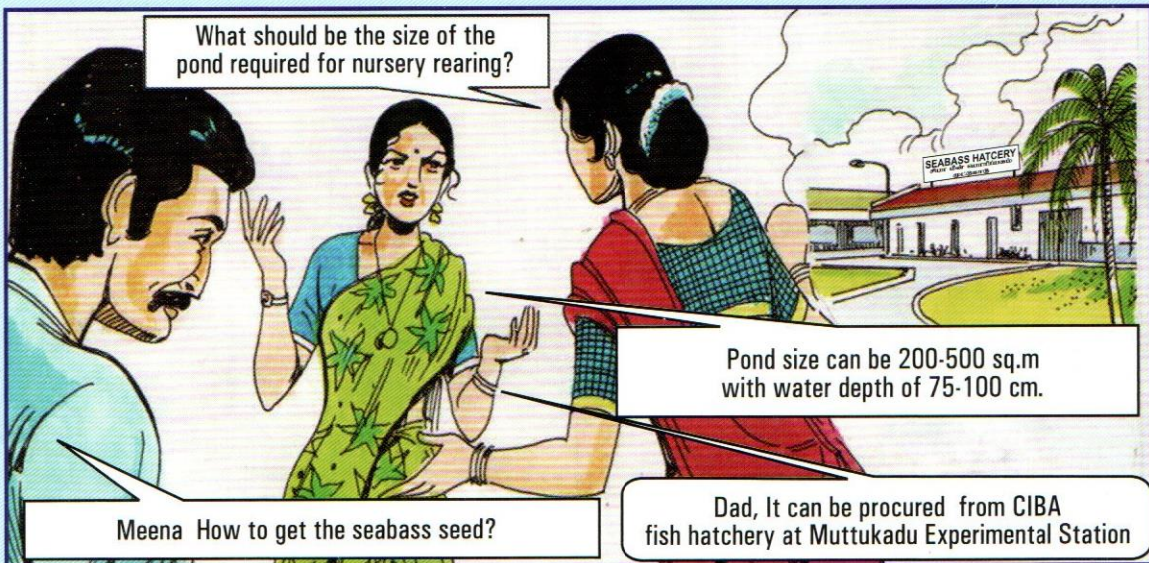


Did they teach the methods of culturing seabass fish?

Is it how to rear seabass juveniles in the ponds?

Yes Dad ! CIBA Fish culture Division Scientists showed us the methods of nursery rearing of seabass juveniles in nursery tanks, hapas and ponds.

Brother, you know. seabass fingerlings can be cultured in brackishwater or freshwater ponds because it can withstand wide range of salinity.

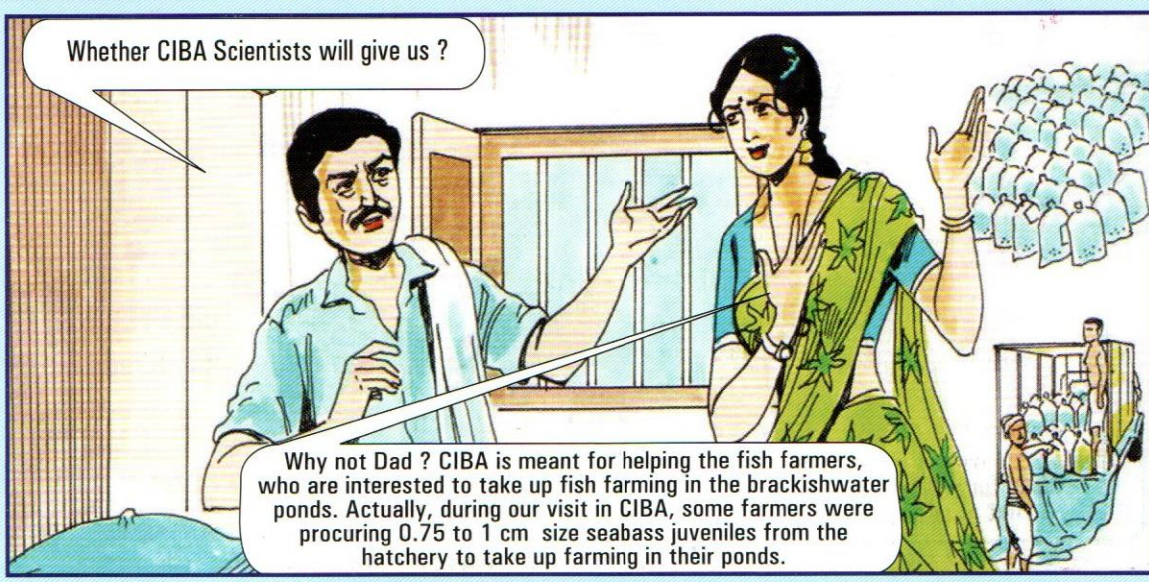


What should be the size of the pond required for nursery rearing?

Pond size can be 200-500 sq.m with water depth of 75-100 cm.

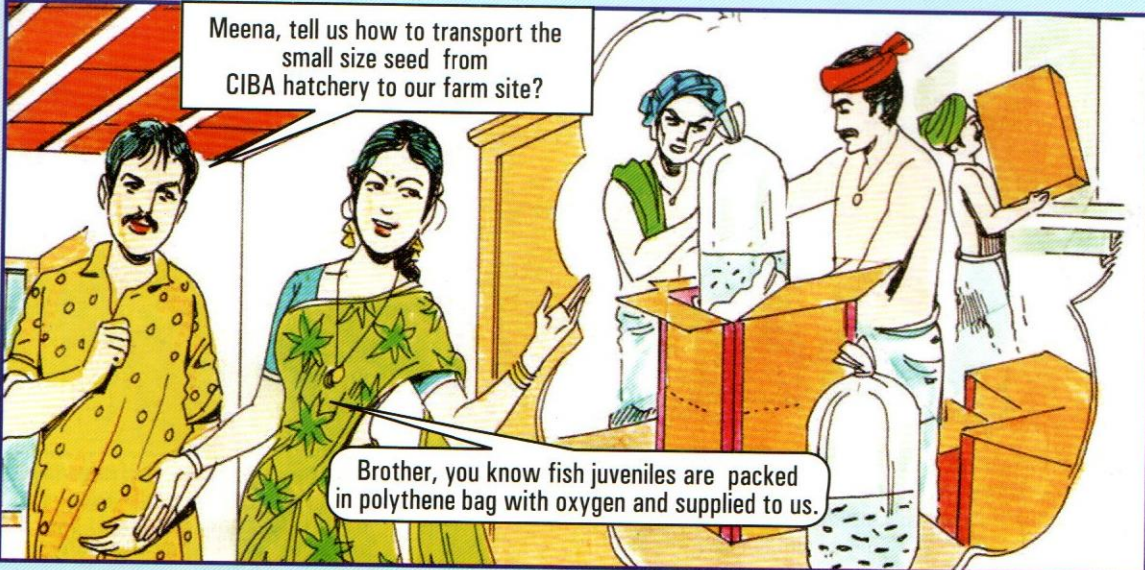
Meena How to get the seabass seed?

Dad, It can be procured from CIBA fish hatchery at Muttukadu Experimental Station



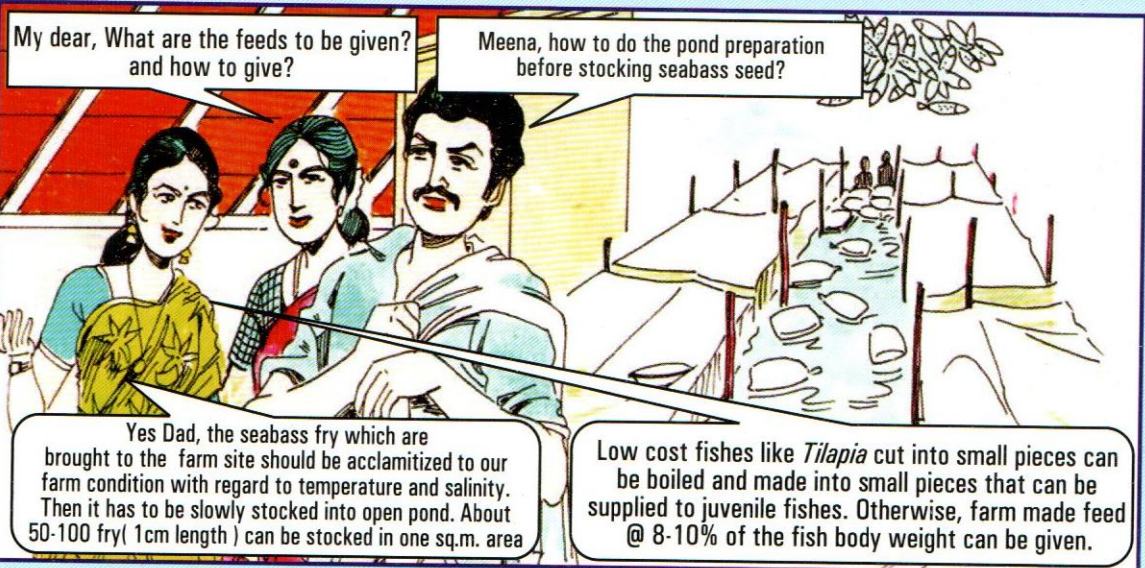
Whether CIBA Scientists will give us ?

Why not Dad ? CIBA is meant for helping the fish farmers, who are interested to take up fish farming in the brackishwater ponds. Actually, during our visit in CIBA, some farmers were procuring 0.75 to 1 cm size seabass juveniles from the hatchery to take up farming in their ponds.



Meena, tell us how to transport the small size seed from CIBA hatchery to our farm site?

Brother, you know fish juveniles are packed in polythene bag with oxygen and supplied to us.

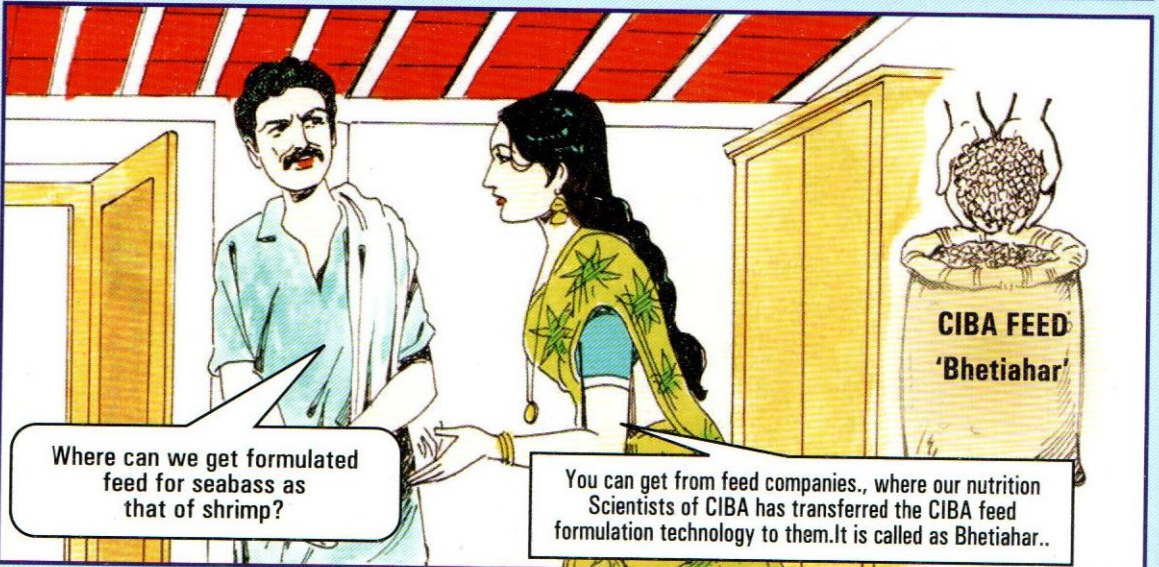


My dear, What are the feeds to be given? and how to give?

Meena, how to do the pond preparation before stocking seabass seed?

Yes Dad, the seabass fry which are brought to the farm site should be acclimatized to our farm condition with regard to temperature and salinity. Then it has to be slowly stocked into open pond. About 50-100 fry( 1cm length ) can be stocked in one sq.m. area

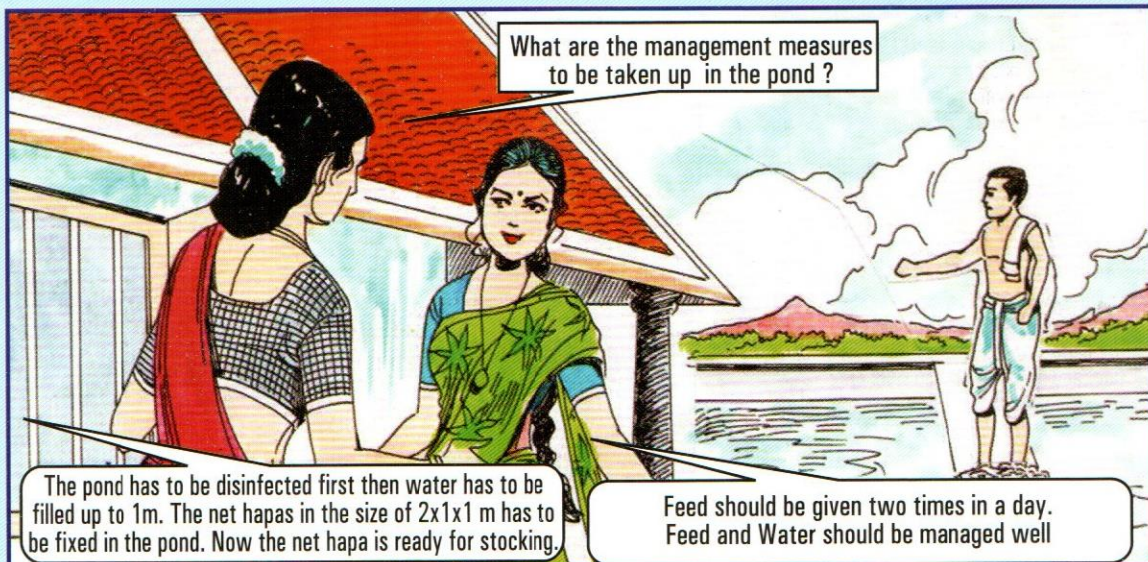
Low cost fishes like *Tilapia* cut into small pieces can be boiled and made into small pieces that can be supplied to juvenile fishes. Otherwise, farm made feed @ 8-10% of the fish body weight can be given.



Where can we get formulated feed for seabass as that of shrimp?

You can get from feed companies., where our nutrition Scientists of CIBA has transferred the CIBA feed formulation technology to them. It is called as Bhetiahar..

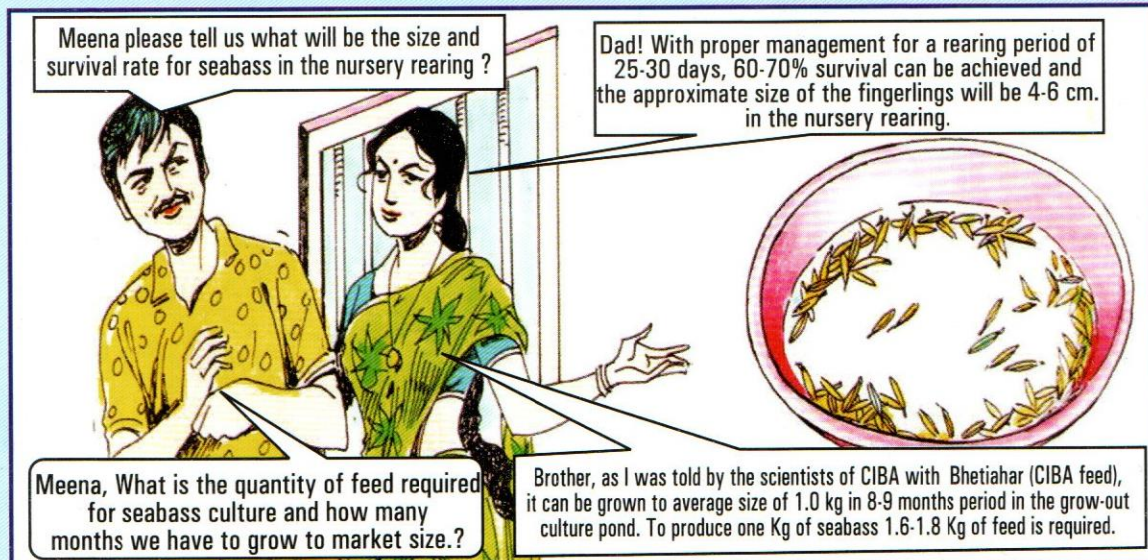




What are the management measures to be taken up in the pond ?

The pond has to be disinfected first then water has to be filled up to 1m. The net hapas in the size of 2x1x1 m has to be fixed in the pond. Now the net hapa is ready for stocking.

Feed should be given two times in a day. Feed and Water should be managed well



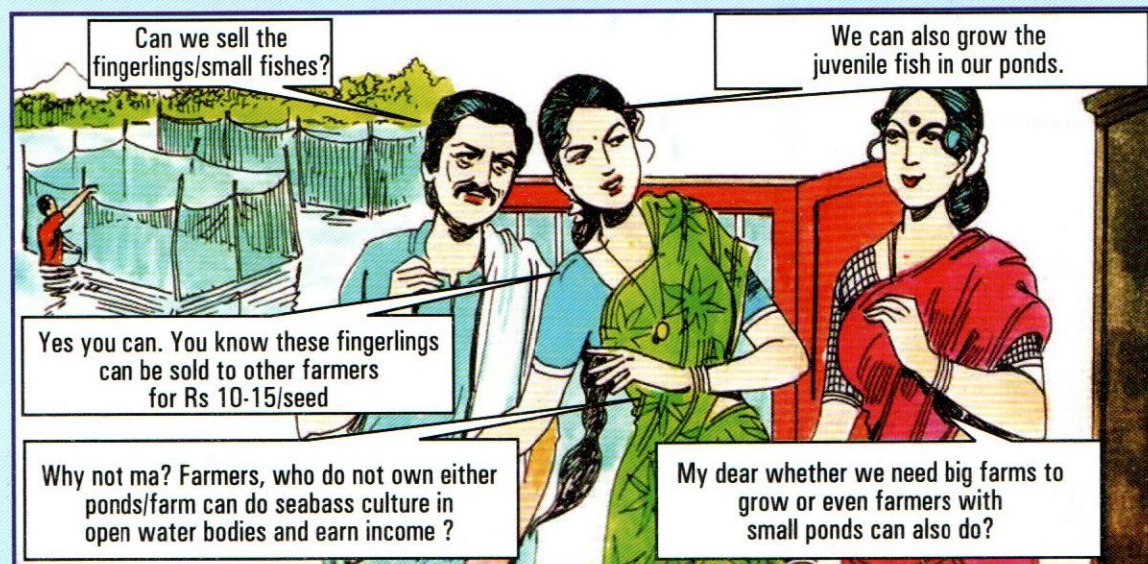
Meena please tell us what will be the size and survival rate for seabass in the nursery rearing ?

Dad! With proper management for a rearing period of 25-30 days, 60-70% survival can be achieved and the approximate size of the fingerlings will be 4-6 cm. in the nursery rearing.



Meena, What is the quantity of feed required for seabass culture and how many months we have to grow to market size.?

Brother, as I was told by the scientists of CIBA with Bhetiahar (CIBA feed), it can be grown to average size of 1.0 kg in 8-9 months period in the grow-out culture pond. To produce one Kg of seabass 1.6-1.8 Kg of feed is required.



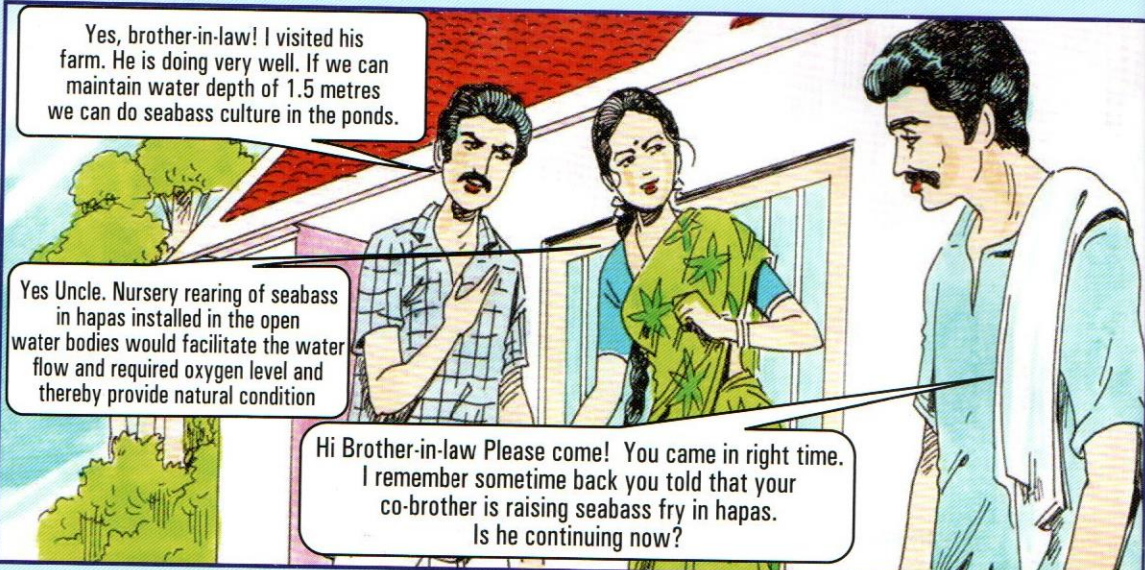
Can we sell the fingerlings/small fishes?

We can also grow the juvenile fish in our ponds.

Yes you can. You know these fingerlings can be sold to other farmers for Rs 10-15/seed

Why not ma? Farmers, who do not own either ponds/farm can do seabass culture in open water bodies and earn income ?

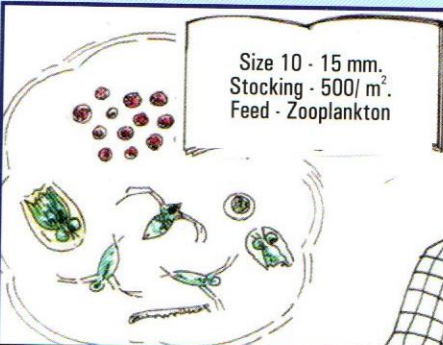
My dear whether we need big farms to grow or even farmers with small ponds can also do?



Yes, brother-in-law! I visited his farm. He is doing very well. If we can maintain water depth of 1.5 metres we can do seabass culture in the ponds.

Yes Uncle. Nursery rearing of seabass in hapas installed in the open water bodies would facilitate the water flow and required oxygen level and thereby provide natural condition

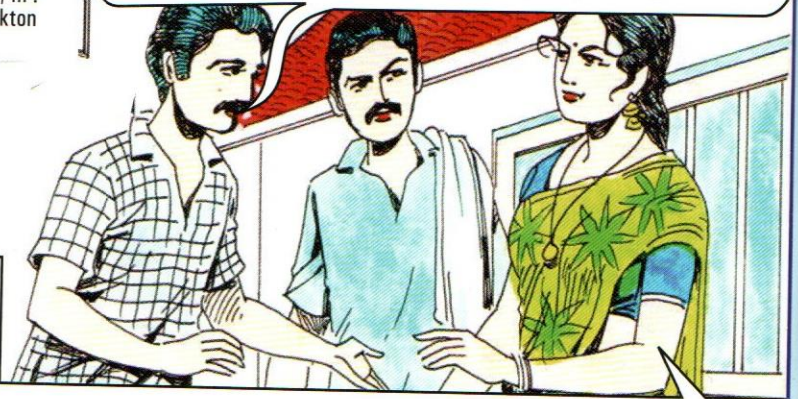
Hi Brother-in-law Please come! You came in right time. I remember sometime back you told that your co-brother is raising seabass fry in hapas. Is he continuing now?



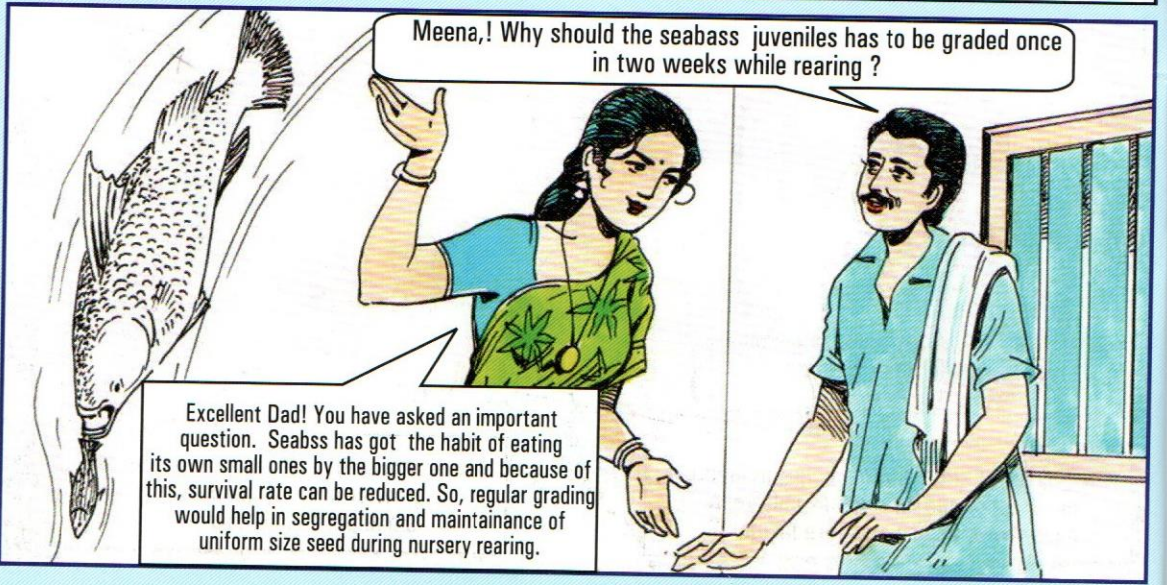
Size 10 - 15 mm.  
Stocking - 500/ m<sup>2</sup>.  
Feed - Zooplankton

es Meena. My co-brother informed that 2x1x1m mesh nylon hapas or mosquito nets can be used as hapas for nursery rearing of seabass

Not only that Uncle. After setting up hapas in open water bodies, seabass fry of 10-15 mm size @ 500 can be stocked per sq m.



They can be fed with shrimp/fish meat or formulated feed or zooplankton collected from nearby water sources. Regular grading has to be done weekly twice to keep uniform sized fishes in the rearing hapa.

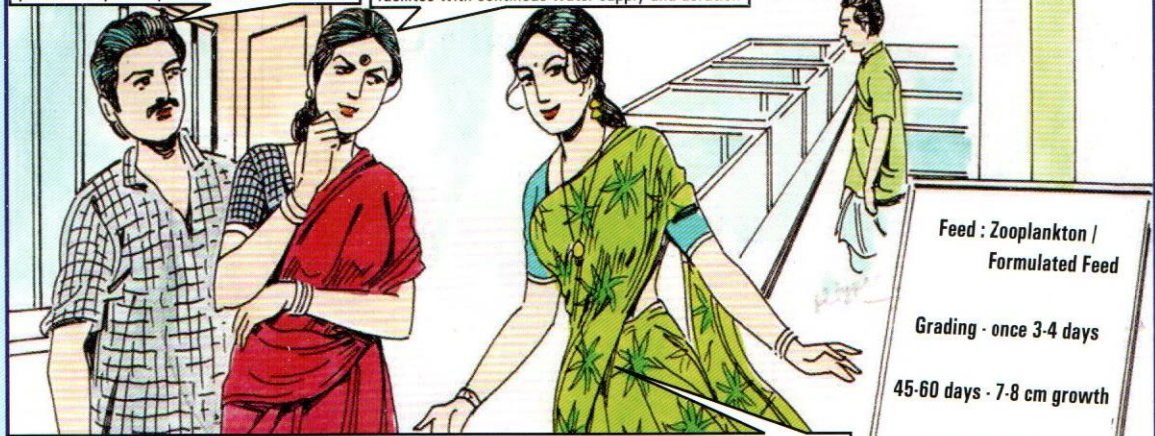


Meena,! Why should the seabass juveniles has to be graded once in two weeks while rearing ?

Excellent Dad! You have asked an important question. Seabss has got the habit of eating its own small ones by the bigger one and because of this, survival rate can be reduced. So, regular grading would help in segregation and maintenance of uniform size seed during nursery rearing.

My dear ! Whether seabass can be reared in ponds or hapas only? Can't we do it in tanks?

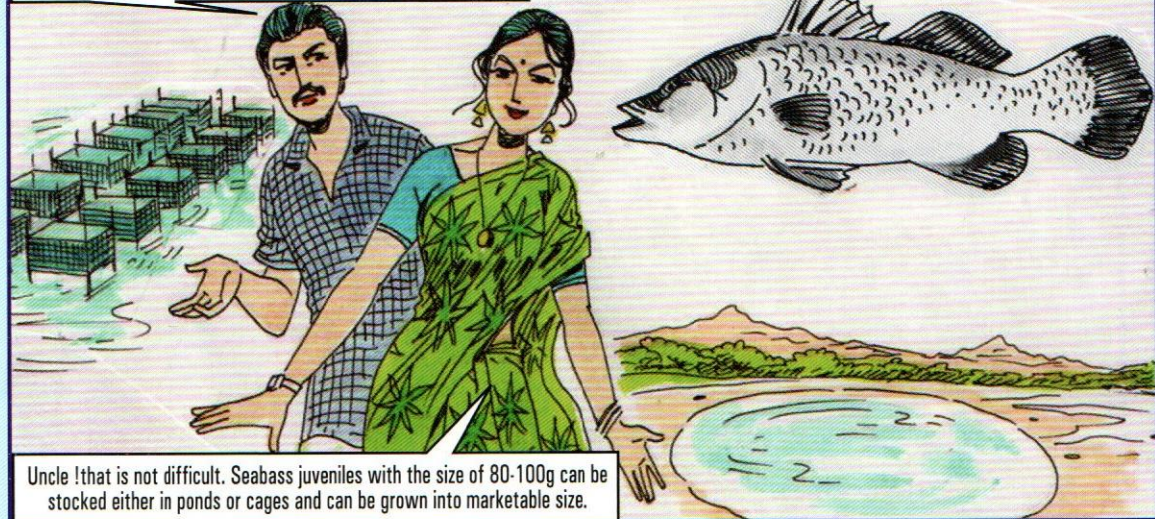
Valli! It can be done in the tanks also but there should be provision for water intake and drain out facilities with continuous water supply and aeration



Feed : Zooplankton / Formulated Feed  
 Grading - once 3-4 days  
 45-60 days - 7-8 cm growth  
 Survival -65-70%

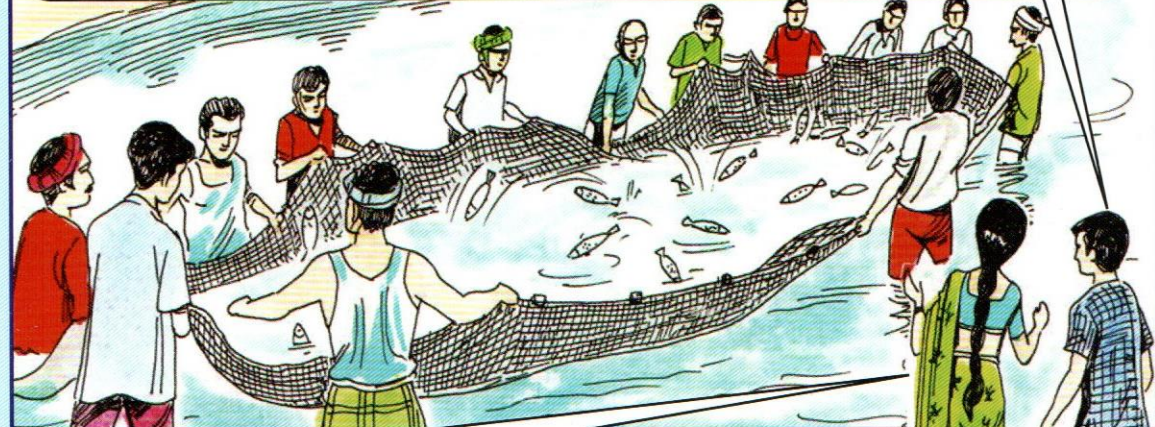
You are correct uncle. While rearing in tank, seabass fry of 500 can be stocked per sq m. Zooplankton can be given as feed. Grading should be done once in 3-4 days. If you follow these protocols, the seabass seed can reach the size of 7-8 cm in 60 days period with survival rate of 65-70%.

Meena ! How can we grow marketable size fish ?



Uncle !that is not difficult. Seabass juveniles with the size of 80-100g can be stocked either in ponds or cages and can be grown into marketable size.

What is the stocking density of seabass juveniles for grow out culture and what is the culture duration?



About 4000 of 100 gm seabass fishes can be stocked in one hectare pond. After 6-8 months period the fish can grow into the average size of 1.0 Kg

You have told correctly Uncle!

Meena, because the large size seabass may eat the small fish the survival rate will be reduced. So we have to do a regular grading. Is it ?

But this can be avoided. This can be done by grading once in 4-5 days. Culturing same size fish in hapas or tanks can give excellent survival rate

How to over come this ma ?

Brother in low, how much money did your co-brother spend to produce 1 kg of seabass?

Brother-in-law my co-brother spent around Rs.120-130 for producing one kg of seabass. But he can sell the fish for of Rs.300-350/kg

Meena ! I want CIBA address and phone numbers . So that I can tell my friends.

**CIBA**  
Phone No.  
044 - 24618817  
044 - 24616948  
044 - 24610565

Director, Central Institute of Brackishwater Aquaculture  
75, Santhome High Road, Raja Annamalipuram, Chennai - 600 028  
CIBA Phone : 044-24618817, 044-24616948, 044-24610565  
Fax : +91-044-24610311, e-mail : director@ciba.res.in,  
Website: www.ciba.res.in

Even the fishermen who cannot go for the fishing also can earn income through seabass culture. Isn't Dad?

By seeing CIBA Research Institute and the method of seabass culture at Chennai my daughter has taught a lesson for us Valli.

Not only that dear. We have got interest and courage to take up seabass culture as livelihood option for income generation.

Oh ! I forget to tell an important matter but I was discussing seabass farming

What is that Uncle! Please tell

Meena, our Sethu, your would be got appointment order as Assistant Director of Fisheries, Pattukottai. Your aunty told me to convey this in person.,.

Then we can start arrangement for the marriage now Oh! Bridegroom himself entering

Dad! Meena's effort, to inform about the technologies on seabass farming developed by CIBA is commendable

Sethu my daughter-in-law has presented a detailed lecture on seabass culture.

My dear by adopting seabass culture in our pond we can earn regular income thereafter and I no need to worry about the job. I am sure through seabass culture great benefit will come to us.

We are ready to grow Seabass fishes. Are you ready?



**CENTRAL INSTITUTE OF BRACKISHWATER AQUACULTURE**  
**(Indian Council of Agricultural Research)**

Head Quarters

Director

Central Institute of Brackishwater Aquaculture (ICAR)

75, Santhome High Road, R. A. Puram,

Chennai – 600 028

Telephone : 2461 8817

2461 6948

2461 0565

Telefax : 91-44-2461 0311

Email : [director@ciba.res.in](mailto:director@ciba.res.in)

Website : [www.ciba.res.in](http://www.ciba.res.in)

Muttukadu Experimental Station

Officer-in-Charge

East Coast Road, Kovalam Post

Muttukadu – 603 112, Kanchipuram District, Tamil Nadu

Telephone : 91-044-27472425, 27472061



## **Muttukadu Experimental Station**



## **Seabass Hatchery**