FISHERIES LIVELIHOOD OPTIONS

Pressure on Indigenous Fish species:

- Fishing pressure on rivers are increasing.
- Many indigenous fish species are in the verse of extinction due to over and unregulated fishing practices.
- It is our responsibility to save these valuable fishes.
- But we also need fishes to feed ourselves and our families.

"What is the alternative?"

☞ Fish Farming is a healthy alternative.

Different Fisheries Livelihood Options:

I. Composite fish culture:

In composite fish culture, a pond is divided into 3 distinct zones based on its depth

i) Upper Zone ii) Middle Zone iii) Bottom Zone


Catla


Silver Carp


Rohu


Grass Carp


Mrigal


Common Carp

We can adopt 6 species composite fish culture combination for a 1000 m^2 pond as Catla and Silver carp feed in the upper zone, Rohu and Grass carp feed in the middle zone and Mrigal and Common carp feed in the bottom zone according to altitudinal variation.

Stocking density: 800-1000 fingerlings per 1000 m^2
Fingerling Size : 10-15 cm
Fingerling Weight : 50-80 gm

In low altitude upto758 m msl		In mid altitude upto 1060 m msl		In High altitude above 1060 m msl	
Species	Nos. per 1000 m^2	Species	Nos. per 1000 m^2	Species	Nos. per 1000 m^2
Catla	200	Catla	200	Silver carp	400
Rohu	200	Rohu	200	Grass Carp	250
Mrigal	150	Mrigal	100	Common Carp	350
Silver carp	200	Silver carp	300	-	-
Grass carp	100	Grass carp	100	-	-
Common Carp	150	Common Carp	200	-	-

Expected Fish Production:250-300 kg per 1000 m^2 water spread area fish pond per year.

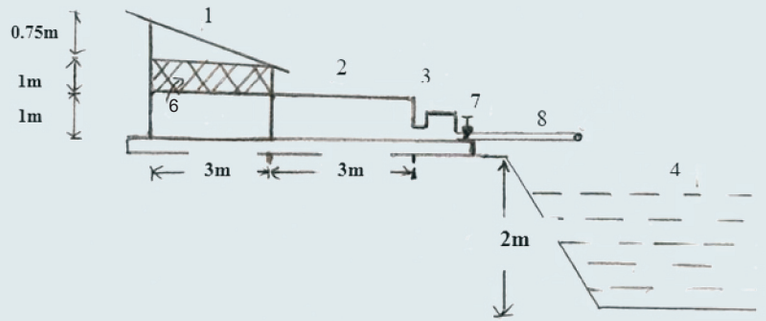
II. Integrated fish Farming:

It is a technology based on the principle of Farm Waste recycling.

A. Pig-cum fish culture :

Pig-cum fish culture is highly profitable, where

1. Pigs are reared adjacent to fish ponds preferably on the pond embankment from where pig urine, excreta and spilled pig feeds are directly introduced into the pond water to be consumed by fishes as food .



1. Pig sty 2. Run 3. Excreta collection pit 4. Fish pond 5. Cemented or bamboo wall 6. Bamboo net 7. Wooden gate 8. Pipe leading to fish pond.

For 1000 m^2 area pond :2-3 piglets (2 month old) are reared.
Variety of pig: Hempshire, Yorkshire, Landrace, Saddle back.

2. Fish Stocking density : 800-850 fingerlings per 1000 m^2 water spread area fish pond.

Fish production: 300-400 kg per 1000 m^2 per year

Pork : 350-400 kg meat per year

B. Poultry cum fish culture:

This system utilizes poultry droppings of fully built-of-poultry-litter for fish culture. In fish-poultry culture, birds have to be housed in intensive, semi-intensive and extensive system. Intensive system (Birds kept in confinement with no access to outside) is considered best to integrate with fish.

1. Chicken cum Fish Culture:

40-50 chickens are sufficient to produce manure enough to fertilize a 1000 m^2 water spread area fish pond.

Commercial Chicken strains	
Broiler	**Layer**
Vencobb	BV-300, BV-400
Hybro	Babcock -300
Hubbard	Lohman-SL

Fish Stocking density : 800-850 fingerlings per 1000 m^2 water spread area fish pond.

Fish production: 200-250 kg per 1000 m^2 per year

Chicken Meat: 120 kg per batch (5-6 batches per year)

2. *Duck cum Fish Culture* : 20-30 ducks are sufficient to produce manure enough to fertilize a 1000 m^2 area fish pond .

Duck Variety

Egg type ducks - (i) Khaki Campbell
(ii) Indian Runner
(iii) Chara Chemballi

Meat – type ducks - (i) White Pekin
(ii) Buff- orpington
(iii) Muscovy

Fish Stocking density : 800-850 fingerlings per 1000 m^2 water spread area fish pond.

Fish production: 200-250 kg per 1000 m^2 per year

Duck Meat: 50-60 kg per year

Eggs: 900-1000 per year

C. Paddy cum fish farming:

Paddy fields retain water for about 3-8 months in a year and paddy cum fish culture can provide an additional production of fish.

Types:

- Perennial System
- Synchronous Refuge Pond System
- Enclosure System

Let's do fish farming, not fish harming

The culture of fish in paddy fields, which remain flooded even after the paddy is harvested, might also serve as an off-season livelihood option for farmers.

Paddy-cum fish culture needs modification of rice fish plot, digging of peripheral trenches, construction of dykes, pond refuge, sowing improved varieties of rice (Ratna &Jaya) , manuring, stocking of fish (Indian major carp, Barb, Tilapia and Common carp).

Fish Stocking density : 500 fingerlings per 1000m^2 area paddy plot

- Total area of the plot: 1000m^2

Production:

Paddy: 250-300 kg per year

Hay: 200-250 kg per year

Fish: 70-80 kg per year

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