MODEL PROJECT REPORT FOR ESTABLISHMENT OF HATCHERY FOR SEED PRODUCTION (6 MILLION FRY / ANNUM)

FISH SEED HATCHERY

Introduction: Fish is the most important source of animal protein food for the human population and the potential of fish culture production from ponds, floating cages and various other small water bodies in India is great. Quality fish seed is one of the prime requirements for scientific Pisciculture and commercial production. These facilities produce about 70 crores standard fish fry per annum which is highly insufficient to meet the requirement. Hence, there is ultimate need of fish seed hatchery for production of fish seed. This item is a part of fisheries project provides healthy profit to an entrepreneur.

Objectives:

- 1. To produce quality fish seed to meet the demand of the state.
- 2. To ensure livelihood support, income and employment generation through propagation of aquaculture in the State.

Components of a hatchery:

- Large Breeding & spawning cum-hatching pool.
- Small spawning- cum-hatching pools.
- One Inlet pipe is to be fixed to spawning pool to its wall and incase of hatching pool, it is connected to the duck mouth fitted on the bottom of the pool.
- Diesel/Electric/Solar pump is required for pumping of water into the overhead tank at the time of failure of power supply to facilitate uninterrupted operation of hatchery.
- Other components are overhead tank, spawning pools, egg collection chamber, incubation pools and spawn collection chamber.
- An overhead tank is generally made on the roof of single or double storied building and a water holding capacity of 10000 litre can supply water to spawning and incubation pools.
- Depending upon the requirements, the sizes of spawning pools vary.
- Spawning pool has the provision of water circulatory system and shower.
- Brood fish management tank.
- Nursery Ponds for rearing of spawn to fry.
- Rearing ponds for raising of fry to fingerlings.
- Brood fish management tank.
- Nursery tank should have minimum 1 meter depth of water.
- Rearing ponds should have minimum 1.2 meter depth of water.
- Stocking ponds for brood stock should have minimum 1.5 meter depth of water.

A model economics for Fish seed hatchery unit is given below. This is indicative and applicable input and output costs and the parameters observed at the field level may be incorporated. An entrepreneur willing to establish a fish seed hatchery farm with the capacity of 6 million fry may refer this project report and customize the same as per the local condition, since the Techno-Economic parameters may differ on a case by case basis.

PROJECT COST									
Α	A CAPITAL INVESTMENT								
	Particulars	Specifications		Units	Unit Cost Rs	Total cost Rs			
1	Land	2.5	Acre		Available	3			
а	Fencing	LS	Acre		100000	100,000			
					Sub Total	100,000			
2	Civil Construction								
а	Building for hatchery operation & Monitoring	400	sq. ft		400	160,000			
b	Hatchery Shed	300	sq. ft		400	120,000			
С	Office-cum-Store Room	300 sq. ft			300	90,000			
d	Other Necessary Construction (Spawning pools, Hatching pool, Spawn collection cistern, Egg collection tank etc. (LS)		LS		300000	300,000			
					Sub Total	670,000			
3	Water Supply system								
а	Borewell / Tubewell		LS	1	70000	70,000			
b	Pump & Pipe line		LS	1	30000	30,000			
С	Brooder Ponds	3000	Cum	2	60	360,000			
d	Nursery Ponds	200	Cum	8	60	96,000			
е	Rearing Ponds	400	Cum	6	60	144,000			
f	Overhead Tank (10000 Litres Capacity)		LS		100000	100,000			
g	Fogger & Sprinkler		LS		10000	10,000			
					Sub Total	810,000			
4	Electrification								
а	Installation & Fitting		LS		29000	29,000			
					Sub Total	29,000			
5	Equipments								
а	Fishing Nets		LS		30000	30,000			
b	Inlet & Outlets		LS		8000	8,000			
С	1 Oxygen filled Cylinders with all fittings		LS		10000	10,000			
d	GI pipes valves, circular frames, monofilament cloth bends & frames (LS)		LS		50000	50,000			
е	Breeding Kit (LS)		LS		5000	5,000			
f	Refrigerator (160 Capacity) (LS)	erator (160 Capacity) LS (LS)			10000	10,000			

g	Hatching screens & Happas (LS)		LS		20000	20,000		
					Sub Total	133,000		
6	Animal & Plant Cost							
а	Brood Fish	400	Kg		150	60,000		
					Sub Total	60,000		
7	Miscellaneous							
а	Insurance premium of Assets		LS		15000	15,000		
					Sub Total	15,000		
	Total Capital Cost					1,817,000		
В	RECURRING EXPENDITURE FOR 1 YEAR							
а	Input Cost (Raw Material)							
i	Feed	1250	Kgs		30	37,500		
ii	Lime	500	Kgs		12	6,000		
iii	Ova prim	160	Mili Liter		40	6,400		
iv	kerosene	15	Ltr.		30	450		
V	Organic Fertilisers	10000	Kgs		2	20,000		
vi	Inorganic fertilisers	270	Kgs		10	2,700		
vii	Micronutrients	1	Kg		800	800		
viii	Artificial feed, Fuel & Misc.		LS		60000	60,000		
					Sub Total	133,850		
	Miscellaneous							
b	Salary & wages							
i	Technician	12	Months	1	12000	144,000		
ii	Skilled Labour	6	Months	2	7000	84,000		
iii	Unskilled Labour	6	Months	1	5000	30,000		
С	Contingencies @ of input cost	1.0%	of Input Cost		133,850	1,339		
d	Maintenance Cost		LS		5000	5,000		
е	Miscellaneous expenses i.e. Prophylactics & the therapeutics		LS		3000	3,000		
	Total Recurring Expenditure					401,189		
					Total	2,218,189		
С	TOTAL PROJECT COST (ROUND)					2,218,000		
D	MARGIN MÓNEY	25%	of Project Cost			554,500		
Е	BANK LOAN	75%	of Project Cost			1,663,500		

PROJECTED PROFITABILITY STATEMENT									
S	Particulars	1st yr.	2nd yr.	3rd yr.	4th yr.	5th yr.	6th yr.	7th yr.	
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I	COSTS								
Α	Recurring costs								
а	Input Cost	133,850	136,527	139,258	142,043	144,884	147,781	150,737	
b	Salary & wages	258,000	263,160	268,423	273,792	279,267	284,853	290,550	
С	Contingencie s	1,339	1,365	1,393	1,420	1,449	1,478	1,507	
d	Maintenance Cost	5,000	5,100	5,202	5,306	5,412	5,520	5,631	
е	Miscellaneou s Cost	3,000	3,060	3,121	3,184	3,247	3,312	3,378	
		401,189	409,212	417,397	425,744	434,259	442,945	451,803	
	BENEFITS								
b	Sale of Fry	1,200,00	1,236,00	1,273,08 0	1,311,27 2	1,350,61 1	1,391,12 9	1,432,863	
	TOTAL	1.200.00	1.236.00	1.273.08	1.311.27	1.350.61	1.391.12	1.432.863	
	BENEFIT	0	0	0	2	1	9	-, ,	