# PROJECT REPORT FOR

# FISH FEED PLANT



# PREPARED FOR:

## PREPARED BY:

DOWNLOAD PROJECT REPORT.COM 1187/67, GROUND FLOOR, GRUHALAXMI, J.M. ROAD, NEAR BALGANDHARVA CHOWK, PUNE, MAHARASHTRA 411005.

Proje	ect For:	
Fish	<b>Feed Plant</b>	

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## I. PROJECT AT A GLANCE

Project Location: xxxxxxxxxxxx

2. Project Cost : Rs.30.00 Lakhs

3. Mean of Finance

A) T. L. facility from Bank : Rs. 20.37 Lakhs

B) Beneficiary contribution : Rs. 3.00 Lakhs

C) C.C. Facility from Bank : Rs. 6.63 Lakhs

D) Subsidy under PMMSY Scheme : Rs. 18.00 Lakhs

5. Rate of Interest : 11.00% Per Annum

6. Repayment : 60 monthly instalments, EMI @ 0.44 Lakhs

7. Nature of Project : Fish Feeds

8. Employment Potential : 5 Nos

9. Nature of the Firm : Proprietary Firm

10. Average Debt Coverage ratios : 2.38

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#### II. ABOUT THE PROJECT

#### Introduction

Fishes like any other animals are provided with all the basic nutritional needs like proteins, carbohydrate, fats, minerals, vitamins etc for their growth, survival and multiplication, which has resulted in different feeding habits and diet selection. Over the years, cultured fish have shown to require additional feed as the available natural food in confined ponds are not in plenty as in the natural water bodies. Hence, adequate nutritional feed is important for fish cultured in ponds, tanks etc. to augment their growth as well as increasing immunity towards infection and eventually achieve the desired production.

Fish culture in the state is nothing new, but in the past it was more of a hobby rather than rearing for income generation. During the recent years fish culture has aroused great interest in the people that quite a number of fallow lands have been replaced by fishery ponds.

### The Essential Nutrients Required For Fish Feed Formulation

#### **Protein**

Protein is a very essential nutrient for fish feed formulation. This is because protein is the main source of energy for fish. Fish need two or three times as much protein as other animals for energy.

#### **Minerals**

Minerals are another essential nutrient in fish feed formulations. This is a necessary condition for the development of fish bones. Therefore, the production of fish feed must include minerals such as zinc, copper, iodine, iron, manganese and calcium.

#### **Vitamin**

Fish are very susceptible to bacteria. So fish need vitamins to build a strong immune system. It should be noted that the amount of vitamins contained in the fish feed formula should be minimal.

Other nutrients required for fish feed formulation include water, fat and carbohydrates.

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### **Fish Processing**

#### **Grinding of Ingredients**

In a fish feed formulation, the first thing you do is measure all the necessary ingredients in specified proportions and grind them one by one.

#### **Mixing of Ingredients**

The next step is to mix all the dry ingredients that are already grounded. You need a fish feed mixer to make it. After mixing the dry ingredients, you should mix the vitamins and minerals together.

#### Add Water and Oil to the Mixture

Warm the oil, add it to the mixture and mix everything together for at least five minutes. Then add a little water at a time. Mix it with the mixture until it forms a mash.

#### **Process the Feed Mash in a Pellet Machine**

The fish feed mixture is put into the fish feed extruder so that it can be processed into pellets. The size of the pellets will depend on the size of the fish that wants to be feed.

## **Dry the Fish Feed Pellets**

After granulated mash is formed, it is then dried in a fish feed dryer to reduce the moisture content. Pellets should be dried at a lower temperature than 60 degrees. This is because high temperatures can destroy micronutrients found in the feed.

## **Cooling technology**

The pellets are usually cooled in Counter-flow type feed cooler, where cool air takes away some heat and water. The pellets can be packaged at room temperature. If the pellets are cooled without drying, a large number of small cracks will appear on the surface and extend deep due to rapid cooling and dehydration inside the pellet. Even fine gelatinized powders may produce this phenomenon.

#### **Classifying Screener**

After pelleting, drying and cooling, unfinished products should be screened by screening. Powder and debris leach from the bottom of the machine. Sieve out large particles and residues from the top of the machine. Finished materials are packed from the interlayer in the feed column.

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# III. ECONOMICS OF THE PROJECT

## A. COST OF PROJECT

S.No.	Particulars	Total	Spent	Bal. To be spent
1	Building (Shed ,office )	7.00	0.00	7.00
2	Plant & Machinery Extruder Machine, Grinder withn cyclone, Mixture machine, Colling Tower, Rotary Dryer	13.46	0.00	13.46
3	Furniture & Electricals	2.17	0.00	2.17
5	Working Capital	7.37	0.00	7.37
		30.00	0.00	30.00
	Means of Finance :			
	a) Own Contribution (10%)			3.00
	b) T L facility from Bank (90%)			20.37
	c) C.C. Facility from Bank (95%)			6.63
				30.00
	c)Total project cost considered for subsidy under Pradhan Mantri Matsya Sampada Yojana (PMMSY)			
	Subsidy entitlement @ 60%			18.00

## **B. PROFITABILITY STATEMENT**

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Sales	45.46	54.55	63.64	72.73	77.27	81.82
	Add : Increase in Cl.Stock	5.47	3.38	3.86	4.34	4.27	4.50
	Total Turnover	50.93	57.93	67.50	77.06	81.54	86.32
2	RM Consumption	30.52	36.63	42.73	48.84	51.89	54.94
3	Overheads						
	a) Direct	6.96	7.66	8.42	9.26	9.50	9.79
	b) Indirect	2.48	2.51	2.56	2.59	2.64	2.70
4	Balance	10.96	11.14	13.78	16.38	17.52	18.89
5	Interest on TL & CC	2.88	2.50	2.08	1.62	1.10	-
6	Depreciation	2.94	2.54	2.20	1.91	1.66	1.44
7	Preliminery expenses W/off	-	-	-	-	-	-
8	Profit after Interest & Dep.	5.15	6.10	9.50	12.85	14.76	17.46
9	Income Tax	0.23	0.42	1.10	2.05	2.63	3.44
10	Profit after Tax	4.92	5.68	8.40	10.79	12.13	14.02
11	Add: Depreciation & Pre Exp.	2.94	2.54	2.20	1.91	1.66	1.44
12	Add : Interest on TL	2.88	2.50	2.08	1.62	1.10	-
13	Cash Accruals	10.73	10.72	12.68	14.32	14.89	15.46
14	Instalments of TL & Interest	5.31	5.31	5.31	5.31	5.31	-
15	DSCR	2.02	2.02	2.39	2.70	2.80	-
16	Average DSCR	2.38					
17	N.P. to Total receipts	10.82	10.41	13.19	14.84	15.70	17.14

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## **C. CASH FLOW STATEMENT**

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Α	CASH INFLOW:						
1	Collection from Debtors	43.56	52.27	60.99	69.70	74.05	78.41
2	T.L. from Bank	20.37					
3	CC from bank	6.63					
4	Capital	3.00	-	-	-	-	-
5	Subsidy	18.00	-				
	TOTAL (A)	91.55	52.27	60.99	69.70	74.05	78.41
В	CASH OUTFLOW:						
1	Fixed Assets	22.63			-		
2	Payments to creditors	25.44	30.52	35.61	40.70	43.24	45.78
3	Direct overheads	6.96	7.66	8.42	9.26	9.50	9.79
4	Indirect Overheads	2.48	2.51	2.56	2.59	2.64	2.70
5	Interest on Bank Loan	2.88	2.50	2.08	1.62	1.10	0.80
6	Income Tax	0.23	0.42	1.10	2.05	2.63	3.44
7	Term Loan Repayment	3.23	3.61	4.02	4.49	5.01	-
8	Drawings	1.00	1.10	1.21	1.33	1.46	1.61
	TOTAL (B)	64.85	48.32	55.01	62.04	65.58	64.12
	SUMMERY:						
	Op. Cash & Bank Balance.	-	26.71	30.66	36.64	44.29	52.77
	Add : Surplus / (Deficit)	26.71	3.96	5.97	7.65	8.48	14.29
	Cl. Cash & Bank Balance.	26.71	30.66	36.64	44.29	52.77	67.06

## D. BALANCE SHEET

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
А	ASSETS:						
1	Fixed Assets	19.69	17.15	14.95	13.04	11.39	9.95
2	Investments	-	-	-	-	-	-
3	Current Assets	34.07	43.69	56.17	71.19	87.15	109.36
4	Loans & Advances	-	-	-	-	-	-
5	Pre Exp. Not written off TOTAL (A)	53.76	60.84	- 71.12	- 84.23	98.54	- 119.31
В	LIABILITIES:						
1	Capital	31.54	36.12	43.31	52.77	63.44	75.85
2	Secured loans Term Loan	17.13	13.53	9.50	5.01	-	-
3	Unsecured Loans	-	-	-	-	-	-
4	Current Liabilities Cash Credit Sundry Creditors	5.09	- 11.19	- 18.31	- 26.45	- 35.10	- 44.26
	TOTAL (B)	53.76	60.84	71.12	84.23	98.54	120.11
	,						

(Rs. Lacs)

#### **E. CAPITAL ACCOUNT**

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Op. Balance	-	31.54	36.12	43.31	52.77	63.44
2	Additions	27.63	-	-	-	-	-
3	Net Profit for the year.	4.92	5.68	8.40	10.79	12.13	14.02
	Sub Total	32.54	37.22	44.52	54.10	64.90	77.46
4	Less : Drawings	1.00	1.10	1.21	1.33	1.46	1.61
5	Cl. Balance	31.54	36.12	43.31	52.77	63.44	75.85

(Rs. Lacs)

## F. PRODUCTION AND SALES

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Capacity utilisation	0.50	0.60	0.70	0.80	0.85	0.90
4	Duralization or an annual (MT)						
1	Production per annum (MT) Fish Feeds	225.40	270.48	315.56	360.64	383.18	405.72
2	Cl.Stock of Finished Goods (MT) Fish Feeds	18.78	22.54	26.30	30.05	31.93	33.81
3	Sales per annum (MT) (Tot Production less Cl. Stock) Fish Feeds	206.62	247.94	289.26	330.59	351.25	371.91
4	Sales per annum Fish Feeds ( Selling Price @ 22,000 per MT)	45.46	54.55	63.64	72.73	77.27	81.82
	Total Sale	45.46	54.55	63.64	72.73	77.27	81.82
5	Sundry Debtors (Credit period allowed 15 days)	1.89	2.27	2.65	3.03	3.22	3.41
6	Collection from Debtors	43.56	52.27	60.99	69.70	74.05	78.41
7	Total cost of Production	37.48	44.28	51.15	58.10	61.39	64.73
8	Cost per MT	0.17	0.16	0.16	0.16	0.16	0.16
9	Value of Closing Stock	3.12	3.69	4.26	4.84	5.12	5.39

## **PRODUCTION**

		Installed capacity	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
S.No.	Particulars	(MT)	0.50	0.60	0.70	0.80	0.85	0.90
1	Production of Fish Feeds	450.80	225.40	270.48	315.56	360.64	383.18	405.72
	Installed Capacity Kg/ Hrs Per Day Working Hours Less: Lunch Hours Net			-	200.00 8.00 1.00 7.00			
	Total Production per day Total production per annum				1.40 450.80			
	Total Working Days Weekly off Holidays Machine Break down Net Working days			26.00 7.00 10.00	365.00 43.00 322.00			

(Rs. Lacs)

#### G. RAW MATERIAL CONSUMPTION AND INVENTORY

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Production (MT) ( Output)	225.40	270.48	315.56	360.64	383.18	405.72
2	RM Purchases	28.18	33.81	39.45	45.08	47.90	50.72

## Raw Material requirement (Input)

S.No.	Items	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Requirement of Raw Material (MT)	225.40	270.48	315.56	360.64	383.18	405.72
2	Purchase of Raw Material (@Rs. 12 per KG.)	27.05	32.46	37.87	43.28	45.98	48.69
3	Packaing Material (@Rs. 500 per KG.)	1.13	1.35	1.58	1.80	1.92	2.03
4	Total cost of R.M	28.18	33.81	39.45	45.08	47.90	50.72

(Rs. Lacs)

## RAW MATERIAL CONSUMPTION AND INVENTORY

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	RM cost for total production	28.18	33.81	39.45	45.08	47.90	50.72
2	CI. Stock of RM (assumed 30 days consumption)						
	O/p Stock	-	2.35	5.17	8.45	12.21	16.20
	Add : Addition	2.35	2.82	3.29	3.76	3.99	4.23
	Closing Stock	2.35	5.17	8.45	12.21	16.20	20.43
3	RM Purchases	30.52	36.63	42.73	48.84	51.89	54.94
4	Sundry Creditors (Credit period allowed 60 days)	5.09	6.10	7.12	8.14	8.65	9.16
5	Payment to creditors	25.44	30.52	35.61	40.70	43.24	45.78

(Rs. Lacs)

#### H. DIRECT OVERHEADS

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Salary & wages	4.20	4.62	5.08	5.59	5.65	5.82
2	Power @ Rs. 8000 per Month	0.96	1.06	1.16	1.28	1.29	1.33
3	Selling & distribution (Rs.5,000 per month)	0.60	0.66	0.73	0.80	0.81	0.83
4	Insurance	0.20	0.22	0.24	0.27	0.29	0.30
5	Other Mfg. Overheads	1.00	1.10	1.21	1.33	1.46	1.51
	Total	6.96	7.66	8.42	9.26	9.50	9.79

# Salary & Wages Cost

#### Labour

Particulars	No	Days	Rate per day	Total
Semiskilled Skilled	2 2	300 300	250.00 350.00	150000.00 210000.00
Total				360000.00

#### Office Staff

Name	No	Rate per month	Yearly
Watchman Total	1	5,000	60,000
			0.60
	Total cost (Lal	bour + staff)	4.20

(Rs. Lacs)

## I. INDIRECT OVERHEADS

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Advertisement & Publicity	0.50	0.55	0.61	0.67	0.73	0.81
2	Repairs & Maint. ( 5% of machinery cost)	0.98	0.86	0.75	0.65	0.57	0.50
3	Misc. Expenses	1.00	1.10	1.21	1.27	1.33	1.40
		2.48	2.51	2.56	2.59	2.64	2.70

(Rs. Lacs)

## J. TERM LOAN REPAYMENT AND INTEREST THEREON

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	TL / Op. Bal.	20.37	17.13	13.53	9.50	5.01	_
2	Repayment during the year	3.23	3.61	4.02	4.49	5.01	-
3	CI. Balance	17.13	13.53	9.50	5.01	-	-
4	Interest at 11 per cent p.a.	2.08	1.71	1.29	0.82	0.30	-
5	Total repayment with Interest	5.31	5.31	5.31	5.31	5.31	-
6	Interest on CC ( at 12 per cent p.a.)	0.80	0.80	0.80	0.80	0.80	0.80
	Total Interest	2.88	2.50	2.08	1.62	1.10	

## **Term Loan Repayment Schedule**

MONTHS	EMI	<b>INTERES</b>	PRINCIP	OST
		T	$\mathbf{AL}$	PRINCIP
			REPAYM	AL
			ENT	
0				20.37
1	0.44	0.19	0.26	20.11
2	0.44	0.18	0.26	19.85
3	0.44	0.18	0.26	19.59
4	0.44	0.18	0.26	19.33
5	0.44	0.18	0.27	19.06
6	0.44	0.17	0.27	18.79
7	0.44	0.17	0.27	18.52
8	0.44	0.17	0.27	18.25
9	0.44	0.17	0.28	17.98
10	0.44	0.16	0.28	17.70
11	0.44	0.16	0.28	17.42
12	0.44	0.16	0.28	17.13
First Year	5.31	2.08	3.23	
13	0.44	0.16	0.29	16.85
14	0.44	0.15	0.29	16.56
15	0.44	0.15	0.29	16.27
16	0.44	0.15	0.29	15.97
17	0.44	0.15	0.30	15.68
18	0.44	0.14	0.30	15.38
19	0.44	0.14	0.30	15.08

20	0.44	0.14	0.30	14.77
21	0.44	0.14	0.31	14.47
22	0.44	0.14	0.31	14.16
23	0.44	0.13	0.31	13.84
24	0.44	0.13	0.31	13.53
Second Year	5.31	1.71	3.61	13.33
25	0.44	0.12	0.32	13.21
26	0.44	0.12	0.32	12.89
27	0.44	0.12	0.32	12.56
28	0.44	0.12	0.33	12.23
29	0.44	0.12	0.33	11.90
30	0.44	0.11	0.33	11.57
31	0.44	0.11	0.34	11.23
32	0.44	0.10	0.34	10.89
33	0.44	0.10	0.34	10.55
34	0.44	0.10	0.35	10.20
35	0.44	0.09	0.35	9.85
36	0.44	0.09	0.35	9.50
Third Year	5.31	1.29	4.02	
37	0.44	0.09	0.36	9.15
38	0.44	0.08	0.36	8.79
39	0.44	0.08	0.36	8.42
40	0.44	0.08	0.37	8.06
41	0.44	0.07	0.37	7.69
42	0.44	0.07	0.37	7.32
43	0.44	0.07	0.38	6.94
44	0.44	0.06	0.38	6.56
45	0.44	0.06	0.38	6.18
46	0.44	0.06	0.39	5.79
47	0.44	0.05	0.39	5.40
48	0.44	0.05	0.39	5.01
Fourth Year	5.31	0.82	4.49	
49	0.44	0.05	0.40	4.61
50	0.44	0.04	0.40	4.21
51	0.44	0.04	0.40	3.81
52	0.44	0.03	0.41	3.40
53	0.44	0.03	0.41	2.99
54	0.44	0.03	0.42	2.57
55 56	0.44 0.44	0.02	0.42	2.15 1.73
		0.02	0.42	
57	0.44	0.02	0.43	1.30
58 59	0.44 0.44	0.01	0.43	0.87
	0.44	0.01	0.43 0.44	0.44
60 Fifth Year	5.31	0.00		0.00
riiui fear	5.31	0.30	5.01	

Project For :	
Fish Feed Plant	

(Rs. Lacs)

#### K. WORKING CAPITAL

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Total Inventory	5.47	8.86	12.72	17.05	21.32	25.82
2	,	1.89	2.27	2.65	3.03	3.22	3.41
	Total	7.37	11.13	15.37	20.08	24.54	29.23
3	Bank C.C. (90 per cent)	6.63	10.02	13.83	18.07	22.08	26.31
4	Own Contribution (10%)	0.74	1.11	1.54	2.01	2.45	2.92

(Rs. Lacs)

#### L. CURRENT ASSETS

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Cl. Stock of Materials	2.35	5.17	8.45	12.21	16.20	20.43
2	Cl. Stock of Finished Goods	3.12	3.69	4.26	4.84	5.12	5.39
	Total Inventory	5.47	8.86	12.72	17.05	21.32	25.82
3	Cash and bank Balance	26.71	30.66	36.64	44.29	52.77	67.06
4	Sundry Debtors	1.89	4.17	6.82	9.85	13.07	16.48
	Total	34.07	43.69	56.17	71.19	87.15	109.36

#### M. FIXED ASSETS AND DEPRECIATION

S.No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Building						
	Op. Balance	_	6.30	5.67	5.10	4.59	4.13
	Additions	7.00	-				
	Total	7.00	6.30	5.67	5.10	4.59	4.13
	Less : Depreciation	0.70	0.63	0.57	0.51	0.46	0.41
	CI. WDV	6.30	5.67	5.10	4.59	4.13	3.72
2	Plant & Machinery						
	Op. Balance	_	11.44	9.72	8.27	7.03	5.97
	Additions	13.46	-				
	Total	13.46	11.44	9.72	8.27	7.03	5.97
	Less : Depreciation	2.02	1.72	1.46	1.24	1.05	0.90
	CI. WDV	11.44	9.72	8.27	7.03	5.97	5.08
2	Furniture & Electricals						
	Op. Balance	_	1.95	1.76	1.58	1.42	1.28
	Additions	2.17	-				
	Total	2.17	1.95	1.76	1.58	1.42	1.28
	Less : Depreciation	0.22	0.20	0.18	0.16	0.14	0.13
	CI. WDV	1.95	1.76	1.58	1.42	1.28	1.15
	Total Depreciation	2.94	2.54	2.20	1.91	1.66	1.44
	CI. WDV	19.69	17.15	14.95	13.04	11.39	9.95