



DETAILED PROJECT REPORT

FROZEN FISH UNIT

UNDER PMFME SCHEME



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Ministry of Food Processing Industries

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1. PROJECT SUMMARY

1. Name of the proposed project	:	Frozen Fish Unit
2. Nature of proposed project	:	Proprietorship/Company/Partnership
3. Proposed project capacity	:	114000 Kg/annum(60,65,70,75&80% capacity utilization in 1 st to 5 th Year respectively)
4. Raw material	:	Rohu Fish & Ice
5. Major product outputs	:	Frozen Fish
6. Total project cost	:	Rs. 37.50 Lakh
• Land development, building & Civil Construction	:	Nil
• Machinery and equipment's	:	Rs. 30.70 Lakh
• Miscellaneous Fixed Assets	:	Rs. 0.80 Lakh
• Working capital	:	Rs. 6.00 Lakh
8. Means of Finance		
• Subsidy (max 10lakhs)	:	Rs. 10.00 Lakh
• Promoter's contribution (min10%)	:	Rs. 4.77 Lakh
• Term loan	:	Rs. 17.33 Lakh
• Working Capital Requirement	:	Rs. 5.40 Lakh
9. Profit after Depreciation, Interest & Tax		
• 1 st year	:	Rs. 2.57 Lakh
• 2 nd year	:	Rs. 5.42 Lakh
• 3 rd year	:	Rs. 7.34 Lakh
• 4 th year	:	Rs. 9.37 Lakh
• 5 th year	:	Rs. 11.49 Lakh
11. Average DSCR	:	Rs. 2.65
12. Term loan repayment	:	5 Years with 6 months grace period

2. ABOUT THE PRODUCT

2.1. PRODUCT INTRODUCTION:

Most of the edible fish products are derived from skeletal muscles (flesh), which account for more than 50% of the animals' total body mass. The skeletal muscles of fish are largely composed of stacks of short bundles of muscle fibers called myomeres, and are different from those of mammals and birds. Myomeres are separated by thin layers of connective tissue that are horizontal (myosepta) and vertical (myocommata). Fish muscle's distinctive structure and thin connective tissue sheaths give the meat its characteristic soft, flaky texture.

According to new research, frozen fish is just as good as fresh fish. While fresh fish can last only two or three days after being caught, according to a registered dietitian, frozen fish can last from four to six months in the freezer and still have the same health benefits. Research from Norway is exploring new methods for handling, frozen and thawing fish in order to ensure the best quality of fish throughout the year. For consumers who want to buy more affordable frozen fish, this new development is beneficial while reducing the risk of parasites that can be found in raw fish. The quality of frozen fish is affected by variables such as fish species, stress levels, pre-slaughter handling and rigor status. However, temperature management during freezing, storage, transportation and thawing are the most important factors determining the quality of frozen fish. Freezing must be fast and the temperature throughout the process must be low and constant, and during transport and storage, fluctuations must be avoided. The processing of fish into canned and frozen forms takes place mainly for export purposes. In addition, there is an increased demand in the domestic and overseas markets for processed and ready to eat marine products.

2.2. MARKET POTENTIAL:

The size of the frozen fish and seafood industry has the potential to rise by USD 31.76 billion in 2020-2024, and the growth momentum of the market will intensify during the forecast period due to steady year-over-year growth increases. Rohu, Catla, Mrigal are highly significant decisions among the freshwater carp fish species. There are fishes that are usually sold as whole fish.

India is the world's second largest fish producer with a harvest of about 10.8 million MT. Marine food production rate in India are currently at 23 percent. India has ample geographical opportunities suitable for both coastal and freshwater fisheries, such as long coastlines (7,517 km), abundant rivers and canals, wetlands, dams and tanks, and brackish water. Currently, the export sector is estimated at USD 5.8 Bn/ 1 Mn MT. Currently, most exports are frozen and there is enormous scope for value-added goods to be exported. The table size of rohu, catla, mrigal fish has an edible portion of 60-70 percent while carps over 3 kg have an edible portion of 75-80 percent. Freshwater carps are typically sold in an iced state and only have a quality of 7 to 10 days.

From 2019 to 2024, the worldwide Frozen Seafood Industry is forecast to record 5.34% CAGR and hit USD 17.29 billion by the end of 2024. To maximize its shelf life by inhibiting the growth of micro-organisms, frozen seafood is stored or retained at freezing time. Frozen fish is primarily consumed in places far from the body of water. The growth of the global economy is projected to fuel continuous production and creativity in cold-chain transport.

Consumers are now switching from packaged food to frozen foods due to growing health consciousness, which is projected to foster the development of the global economy.

2.3. RAW MATERIAL DESCRIPTION:

A great variety of fish and shellfish suitable for canning are available in our country. Sardine, mackerel, tuna, seer fish and shellfish like shrimp, clam, oyster, mussel, crab etc. are suitable for canning/frozen packaging. In this project we have taken Rohu type of fish which is widely consumed in India. In addition to this ice and packaging material is also required. Packaging material used for frozen fresh fish is mainly polyethylene, either as premade bags or wraps which are then packed into waxed duplex cartons. Frozen fish are also over wrapped in polystyrene trays for display. Individual fillets are packed in cellophane or PVC.

3. PROCESS FLOW CHART

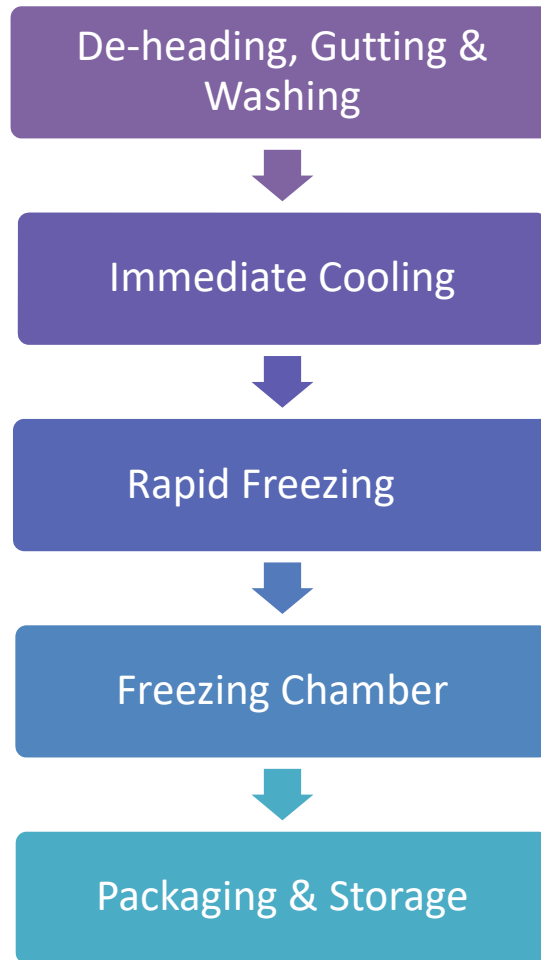
Fish is a perishable raw material because of its chemical composition. After death, the taste and texture of fish change quickly during preservation. Thus, it is advisable to keep the fish alive as much as possible when handling freshwater fish. To eliminate bacterial activities, in order to prevent undesirable enzymatic and microbiological processes, de-heading, gutting, washing and chilling should be carried out immediately on dead fish. In order to preserve shelf life, processing techniques should be implemented when fish is not sold fresh. Freezing, smoking, heat treatment may be used in these (sterilization, pasteurization, etc.).

- Immediate cooling- Fast cooling and retention of fish at temperatures between 2 and -2 °C (36 and 28 °F) occurs shortly after processing. (See Treating Harvested Fish: Chilling above.)
- Rapid freezing- Rapid temperature drop to between -2 and -7 °C (28 and 20 °F) is the secret to freezing. This temperature range illustrates the highest ice crystal forming region in the

cells of the animals. If water freezes rapidly in the cells, so the ice crystals can stay small and allow the cells to experience minor damage. Slow freezing, however, results in the development of large ice crystals and the cell membranes are ruptured. The ruptured cells release water (called drip) and several compounds that provide some fish flavour characteristics when slow-frozen flesh is thawed, resulting in a dry, tasteless product.

- Freezing- Among the various preservation processes used to preserve seafood, the taste and consistency of fresh fish can only be retained by freezing. The biochemical processes in fish flesh are significantly reduced or interrupted by freezing. Immediate cooling and holding, quick freezing, and cold storage are the three stages for freezing fish.

- Freezer Chamber- In order to preserve a long shelf life and ensure consistency, fish must be preserved at a steady temperature of $-23\text{ }^{\circ}\text{C}$ ($-10\text{ }^{\circ}\text{F}$) or below when frozen. Water is a major part of fresh seafood (e.g., oysters are more than 80 percent water). Since water in fish contains several dissolved compounds, at the freezing point of pure water, it does not freeze evenly. The free water in fish instead freezes over a large range, starting at around $-2\text{ }^{\circ}\text{C}$ ($28\text{ }^{\circ}\text{F}$). Until the substance exceeds a temperature of approximately $-40\text{ }^{\circ}\text{C}$ ($-40\text{ }^{\circ}\text{F}$), the sum of residual free water declines. Fish kept below that temperature can be preserved for an infinite time and packed so as not to allow water depletion by sublimation. Unfortunately, because of the enormous variation in energy prices, there are comparatively few commercial freezers capable of keeping fish at -40 ° . Therefore, fish are usually preserved at -18 to $-29\text{ }^{\circ}\text{C}$ (0 to $-20\text{ }^{\circ}\text{F}$), resulting in a variable shelf life of only a few weeks and almost one year.



4. ECONOMICS OF THE PROJECT

4.1. BASIS & PRESUMPTIONS

1. Production Capacity of Frozen Fish is 50 kg per hr. First year, Capacity has been taken @ 60%.
2. Working shift of 8 hours per day has been considered.

3. Raw Material stock is for 10 days and Finished goods Closing Stock has been taken for 10 days.
4. Credit period to Sundry Debtors has been given for 7 days.
5. Credit period by the Sundry Creditors has been provided for 7 days.
6. Depreciation and Income tax has been taken as per the Income tax Act, 1961.
7. Interest on working Capital Loan and Term loan has been taken at 11%.
8. Salary and wages rates are taken as per the Current Market Scenario.
9. Power Consumption has been taken at 16 KW.
10. Increase in sales and raw material costing has been taken @ 5% on a yearly basis.

4.2. CAPACITY, UTILIZATION, PRODUCTION & OUTPUT

<u>COMPUTATION OF PRODUCTION OF FROZEN FISH</u>		
Items to be Manufactured		
Frozen Fish		
Machine capacity Per hour	50	Kg
Total working Hours	8	
Machine capacity Per Day	400	Kg
Working days in a month	25	Days
Working days per annum	300	
Wastage Considered	5%	
Raw material requirement	120000	Kg
Final Output per annum after wastage	114000	Kg
Final Product to be packed in 1 kg Packet		
Number of Packets per annum	114000	1 Kg Packet

Production of Frozen Fish		
Production	Capacity	KG
1st year	60%	68,400
2nd year	65%	74,100
3rd year	70%	79,800
4th year	75%	85,500
5th year	80%	91,200





Raw Material Cost			
Year	Capacity Utilisation	Rate (per Kg)	Amount (Rs. in lacs)
1st year	60%	85.00	61.20
2nd year	65%	89.00	69.42
3rd year	70%	93.00	78.12
4th year	75%	98.00	88.20
5th year	80%	103.00	98.88



COMPUTATION OF SALE					
Particulars	1st year	2nd year	3rd year	4th year	5th year
Op Stock	-	2,280	2,470	2,660	2,850
Production	68,400	74,100	79,800	85,500	91,200
Less : Closing Stock	2,280	2,470	2,660	2,850	3,040
Net Sale	66,120	73,910	79,610	85,310	91,010
Sale price per packet	160.00	168.00	176.00	185.00	194.00
Sales (in Lacs)	105.79	124.17	140.11	157.82	176.56


4.3. PREMISES/INFRASTRUCTURE

The approximate total area required for complete factory setup is 2000-2500 Sq. ft. for smooth production including storage area. It is expected that the premises will be on rental.

4.4. MACHINERY & EQUIPMENTS

Machine Name	Description	Machine Image.
Vaccum Packaging Machine	The Fish Vacuum Packing System extracts and seals air from the pouch in an airtight way. Vacuum packing increases the shelf-life and helps maintain the product's consistency.	
Blast Freezer-	For deep freezing fillets of cod, air blast freezers are also used. On their travel into the tube, the fillets lie on a conveyor belt and freeze.	
Freezer/cold storage	A plant for the refrigeration, freezing and cold handling of perishable foodstuffs and other perishables.	
Gutting machines	Gutting machines reduce the amount of waste by basically gutting all forms of fish with extremely high accuracy, leading to a decline in the cost of processing. The guts are sucked out with the aid of a vacuum when the fish is gutted and sliced.	

	<p>Problems involving knife sharpening as a result of stones eaten by fish are thereby avoided.</p>	
<p>Washmaster</p>	<p>For initial cleaning, rinsing during processing or final washing before packaging, Wash master may be used. Wash master is available as a 2-chamber device, meaning that some of the water can be reused while the second chamber still has fresh water.</p>	
<p>Scalemaster</p>	<p>The Scale master unit is mounted on a rigid spring suspension frame in order to change the size of the fish. The fish is kept in place by tight connections during the decaling process-it is necessary to maintain the fish in place to ensure a successful decaling. The tightening of the ties is performed pneumatically and it is easy to seamlessly change the tightening process. The links can be cut for better cleaning of both the ties and the unit in a minute.</p>	

<p>Material handling and other Equipments</p>	<p>These Equipments are used for material handling.</p>	
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Machine	Unit	Rate	Price
Vaccum Packaging Machine	1	70,000	70,000
Blast Freezer (Capacity 50 kg)	1	3,00,000	3,00,000
Freezer/cold storage (15 Ft X 8.5 Ft X 9 Ft)	1	10,00,000	10,00,000
Gutting Machines (50-80 kg)	1	4,50,000	4,50,000
Washmaster (50-80 kg)	1	3,50,000	3,50,000
Scalemaster	1	8,50,000	8,50,000
Material handling and other equipments	-	50,000	50,000

Note: Approx. Total Machinery cost shall be Rs 30.70 lakh including equipment's but excluding GST and Transportation Cost.

4.5. MISCELLANEOUS FIXED ASSETS

- Water Supply Arrangements
- Furniture & Fixtures
- Computers & Printers

4.6. TOTAL COST OF PROJECT

COST OF PROJECT	
	(in Lacs)
PARTICULARS	Amount
Land & Building	Owned/Rented
Plant & Machinery	30.70
Miscellaneous Assets	0.80
Working capital	6.00
Total	37.50

4.7. MEANS OF FINANCE

MEANS OF FINANCE	
PARTICULARS	AMOUNT
Own Contribution (min 10%)	4.77
Subsidy @35%(Max. Rs 10 Lac)	10.00
Term Loan @ 55%	17.33
Working Capital (Bank Finance)	5.40
Total	37.50

4.8. TERM LOAN: Term loan of Rs. 17.33 Lakh is required for project cost of Rs. 37.50 Lakh

4.9. TERM LOAN REPAYMENT & INTEREST SCHEDULE

REPAYMENT SCHEDULE OF TERM LOAN								
							Interest	11.00%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance	
1st	Opening Balance							
	1st month	-	17.33	17.33	-	-	17.33	
	2nd month	17.33	-	17.33	0.16	-	17.33	
	3rd month	17.33	-	17.33	0.16	-	17.33	
	4th month	17.33	-	17.33	0.16	-	17.33	
	5th month	17.33	-	17.33	0.16	-	17.33	
	6th month	17.33	-	17.33	0.16	-	17.33	
	7th month	17.33	-	17.33	0.16	0.32	17.00	
	8th month	17.00	-	17.00	0.16	0.32	16.68	
	9th month	16.68	-	16.68	0.15	0.32	16.36	
	10th month	16.36	-	16.36	0.15	0.32	16.04	
	11th month	16.04	-	16.04	0.15	0.32	15.72	
	12th month	15.72	-	15.72	0.14	0.32	15.40	
					1.70	1.93		
2nd	Opening Balance							
	1st month	15.40	-	15.40	0.14	0.32	15.08	
	2nd month	15.08	-	15.08	0.14	0.32	14.76	
	3rd month	14.76	-	14.76	0.14	0.32	14.44	
	4th month	14.44	-	14.44	0.13	0.32	14.12	
	5th month	14.12	-	14.12	0.13	0.32	13.80	

PM FME- Detailed Project Report of Frozen Fish Unit

	6th month	13.80	-	13.80	0.13	0.32	13.48
	7th month	13.48	-	13.48	0.12	0.32	13.15
	8th month	13.15	-	13.15	0.12	0.32	12.83
	9th month	12.83	-	12.83	0.12	0.32	12.51
	10th month	12.51	-	12.51	0.11	0.32	12.19
	11th month	12.19	-	12.19	0.11	0.32	11.87
	12th month	11.87	-	11.87	0.11	0.32	11.55
					1.50	3.85	
3rd	Opening Balance						
	1st month	11.55	-	11.55	0.11	0.32	11.23
	2nd month	11.23	-	11.23	0.10	0.32	10.91
	3rd month	10.91	-	10.91	0.10	0.32	10.59
	4th month	10.59	-	10.59	0.10	0.32	10.27
	5th month	10.27	-	10.27	0.09	0.32	9.95
	6th month	9.95	-	9.95	0.09	0.32	9.63
	7th month	9.63	-	9.63	0.09	0.32	9.30
	8th month	9.30	-	9.30	0.09	0.32	8.98
	9th month	8.98	-	8.98	0.08	0.32	8.66
	10th month	8.66	-	8.66	0.08	0.32	8.34
	11th month	8.34	-	8.34	0.08	0.32	8.02
	12th month	8.02	-	8.02	0.07	0.32	7.70
					1.08	3.85	
4th	Opening Balance						
	1st month	7.70	-	7.70	0.07	0.32	7.38
	2nd month	7.38	-		0.07	0.32	7.06

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				7.38			
3rd month	7.06	-	7.06	0.06	0.32	6.74	
4th month	6.74	-	6.74	0.06	0.32	6.42	
5th month	6.42	-	6.42	0.06	0.32	6.10	
6th month	6.10	-	6.10	0.06	0.32	5.78	
7th month	5.78	-	5.78	0.05	0.32	5.45	
8th month	5.45	-	5.45	0.05	0.32	5.13	
9th month	5.13	-	5.13	0.05	0.32	4.81	
10th month	4.81	-	4.81	0.04	0.32	4.49	
11th month	4.49	-	4.49	0.04	0.32	4.17	
12th month	4.17	-	4.17	0.04	0.32	3.85	
				0.65	3.85		
5th	Opening Balance						
1st month	3.85	-	3.85	0.04	0.32	3.53	
2nd month	3.53	-	3.53	0.03	0.32	3.21	
3rd month	3.21	-	3.21	0.03	0.32	2.89	
4th month	2.89	-	2.89	0.03	0.32	2.57	
5th month	2.57	-	2.57	0.02	0.32	2.25	
6th month	2.25	-	2.25	0.02	0.32	1.93	
7th month	1.93	-	1.93	0.02	0.32	1.60	
8th month	1.60	-	1.60	0.01	0.32	1.28	
9th month	1.28	-	1.28	0.01	0.32	0.96	
10th month	0.96	-	0.96	0.01	0.32	0.64	
11th month	0.64	-	0.64	0.01	0.32	0.32	
12th month	0.32	-		0.00	0.32	-	

0.32		
		0.23 3.85
DOOR TO DOOR MORATORIUM PERIOD	60	MONTHS
REPAYMENT PERIOD	6	MONTHS
	54	MONTHS

4.10. WORKING CAPITAL CALCULATIONS

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL						(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year	
<u>Finished Goods</u>						
	3.04	3.40	3.78	4.21	4.66	
<u>Raw Material</u>						
	2.04	2.31	2.60	2.94	3.30	
Closing Stock	5.08	5.71	6.38	7.15	7.96	

COMPUTATION OF WORKING CAPITAL REQUIREMENT					
TRADITIONAL METHOD					(in Lacs)
Particulars	Amount	Own Margin		Bank Finance	
Finished Goods & Raw Material	5.08				
Less : Creditors	1.43				
Paid stock	3.65	10%	0.37	90%	3.29
Sundry Debtors	2.47	10%	0.25	90%	2.22
	6.12		0.61		5.51
MPBF					5.51
WORKING CAPITAL LIMIT DEMAND (from Bank)					5.40
Working Capital Margin					0.60

4.11. SALARY & WAGES

<u>BREAK UP OF LABOUR CHARGES</u>			
Particulars	Wages Rs. per Month	No of Employees	Total Salary
Plant Operator	15,000	1	15,000
Supervisor	20,000	1	20,000
Skilled (in thousand rupees)	12,000	4	48,000
Unskilled (in thousand rupees)	8,500	4	34,000
Total salary per month			1,17,000
Total annual labour charges	(in lacs)		14.04

<u>BREAK UP OF STAFF SALARY CHARGES</u>			
Particulars	Salary Rs. per Month	No of Employees	Total Salary
Administrative Staff	6,000	4	24,000
Manager	20,000	1	20,000
Accountant	15,000	1	15,000
Total salary per month			59,000
Total annual Staff charges	(in lacs)		7.08

4.12 POWER REQUIREMENT

Utility Charges (per month)		
Particulars	value	Description
Power connection required		16 KWH
consumption per day		128 units
Consumption per month		3,200 units
Rate per Unit		10 Rs.
power Bill per month		32,000 Rs.

4.13. DEPRECIATION CALCULATION

COMPUTATION OF DEPRECIATION				(in Lacs)
Description	Plant & Machinery	Miss. Assets	TOTAL	
Rate of Depreciation	15.00%	10.00%		
Opening Balance	-	-	-	
Addition	30.70	0.80	31.50	
Total	30.70	0.80	31.50	
Less : Depreciation	4.61	0.08	4.69	
WDV at end of Year	26.10	0.72	26.82	
Additions During The Year	-	-	-	
Total	26.10	0.72	26.82	
Less : Depreciation	3.91	0.07	3.99	
WDV at end of Year	22.18	0.65	22.83	
Additions During The Year	-	-	-	
Total	22.18	0.65	22.83	
Less : Depreciation	3.33	0.06	3.39	
WDV at end of Year	18.85	0.58	19.44	
Additions During The Year	-	-	-	
Total	18.85	0.58	19.44	
Less : Depreciation	2.83	0.06	2.89	
WDV at end of Year	16.03	0.52	16.55	
Additions During The Year	-	-	-	
Total	16.03	0.52	16.55	
Less : Depreciation	2.40	0.05	2.46	
WDV at end of Year	13.62	0.47	14.09	

4.14. REPAIR & MAINTENANCE: Repair & Maintenance is 3.0% of Gross Sale.

4.15. PROJECTIONS OF PROFITABILITY ANALYSIS

<u>PROJECTED PROFITABILITY STATEMENT</u>						(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year	
Capacity Utilisation %	60%	65%	70%	75%	80%	
<u>SALES</u>						
Gross Sale						
Frozen Fish	105.79	124.17	140.11	157.82	176.56	
Total	105.79	124.17	140.11	157.82	176.56	
<u>COST OF SALES</u>						
Raw Material Consumed	61.20	69.42	78.12	88.20	98.88	
Electricity Expenses	3.84	4.42	5.08	5.84	6.42	
Depreciation	4.69	3.99	3.39	2.89	2.46	
Wages & labour	14.04	15.44	16.99	18.35	19.82	
Repair & maintenance	3.17	3.73	4.20	4.73	5.30	
Packaging	4.23	4.97	5.60	6.31	7.06	
Cost of Production	91.17	101.96	113.39	126.32	139.93	
Add: Opening Stock /WIP	-	3.04	3.40	3.78	4.21	
Less: Closing Stock /WIP	3.04	3.40	3.78	4.21	4.66	
Cost of Sales	88.13	101.60	113.01	125.89	139.48	
GROSS PROFIT	17.66	22.57	27.11	31.93	37.08	
	16.69%	18.18%	19.35%	20.23%	21.00%	
Salary to Staff	7.08	8.35	10.19	12.03	13.71	
Interest on Term Loan	1.70	1.50	1.08	0.65	0.23	
Interest on working Capital	0.59	0.59	0.59	0.59	0.59	
Rent	3.60	3.96	4.36	4.79	5.27	
selling & adm exp	2.12	2.48	2.80	3.16	3.53	
TOTAL	15.09	16.89	19.02	21.22	23.34	
NET PROFIT	2.57	5.68	8.09	10.71	13.74	
	2.43%	4.57%	5.77%	6.79%	7.78%	
Taxation	-	0.26	0.74	1.34	2.25	
PROFIT (After Tax)	2.57	5.42	7.34	9.37	11.49	

4.16. BREAK EVEN POINT ANALYSIS

BREAK EVEN POINT ANALYSIS					
Year	I	II	III	IV	V
Net Sales & Other Income	105.79	124.17	140.11	157.82	176.56
Less : Op. WIP Goods	-	3.04	3.40	3.78	4.21
Add : Cl. WIP Goods	3.04	3.40	3.78	4.21	4.66
Total Sales	108.83	124.53	140.49	158.25	177.01
Variable & Semi Variable Exp.					
Raw Material Consumed	61.20	69.42	78.12	88.20	98.88
Electricity Exp/Coal Consumption at 85%	3.26	3.75	4.32	4.96	5.46
Wages & Salary at 60%	12.67	14.28	16.31	18.22	20.12
Selling & administrative Expenses 80%	1.69	1.99	2.24	2.53	2.82
Interest on working Capital	0.594	0.594	0.594	0.594	0.594
Repair & maintenance	3.17	3.73	4.20	4.73	5.30
Packaging	4.23	4.97	5.60	6.31	7.06
Total Variable & Semi Variable Exp	86.83	98.73	111.39	125.56	140.23
Contribution	22.00	25.80	29.11	32.70	36.78
Fixed & Semi Fixed Expenses					
Electricity Exp/Coal Consumption at 15%	0.58	0.66	0.76	0.88	0.96
Wages & Salary at 40%	8.45	9.52	10.87	12.15	13.41
Interest on Term Loan	1.70	1.50	1.08	0.65	0.23
Depreciation	4.69	3.99	3.39	2.89	2.46
Selling & administrative Expenses 20%	0.42	0.50	0.56	0.63	0.71
Rent	3.60	3.96	4.36	4.79	5.27
Total Fixed Expenses	19.43	20.12	21.02	21.99	23.04
Capacity Utilization	60%	65%	70%	75%	80%
OPERATING PROFIT	2.57	5.68	8.09	10.71	13.74
BREAK EVEN POINT	53%	51%	51%	50%	50%
BREAK EVEN SALES	96.13	97.12	101.46	106.42	110.87

4.17. PROJECTED BALANCE SHEET

<u>PROJECTED BALANCE SHEET</u>						(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year	
<u>Liabilities</u>						
Capital						
opening balance		13.33	14.25	15.60	17.97	
Add:- Own Capital	4.77					
Add:- Retained Profit	2.57	5.42	7.34	9.37	11.49	
Less:- Drawings	4.00	4.50	6.00	7.00	9.00	
Subsidy/grant	10.00					
Closing Balance	13.33	14.25	15.60	17.97	20.46	
Term Loan	15.40	11.55	7.70	3.85	-	
Working Capital Limit	5.40	5.40	5.40	5.40	5.40	
Sundry Creditors	1.43	1.62	1.82	2.06	2.31	
Provisions & Other Liab	0.40	0.50	0.60	0.72	0.86	
TOTAL :	35.96	33.32	31.12	30.00	29.03	
<u>Assets</u>						
Fixed Assets (Gross)	31.50	31.50	31.50	31.50	31.50	
Gross Dep.	4.69	8.67	12.06	14.95	17.41	
Net Fixed Assets	26.82	22.83	19.44	16.55	14.09	
Current Assets						
Sundry Debtors	2.47	2.90	3.27	3.68	4.12	
Stock in Hand	5.08	5.71	6.38	7.15	7.96	
Cash and Bank	1.60	1.88	2.03	2.61	2.86	
TOTAL :	35.96	33.32	31.12	30.00	29.03	

4.18. CASH FLOW STATEMENT

<u>PROJECTED CASH FLOW STATEMENT</u>					
(in Lacs)					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>SOURCES OF FUND</u>					
Own Margin	4.77				
Net Profit	2.57	5.68	8.09	10.71	13.74
Depriciation & Exp. W/off	4.69	3.99	3.39	2.89	2.46
Increase in Cash Credit	5.40	-	-	-	-
Increase In Term Loan	17.33	-	-	-	-
Increase in Creditors	1.43	0.19	0.20	0.24	0.25
Increase in Provisions & Oth lib	0.40	0.10	0.10	0.12	0.14
Sunsidy/grant	10.00				
TOTAL :	46.57	9.96	11.78	13.95	16.59
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	31.50				
Increase in Stock	5.08	0.63	0.67	0.77	0.81
Increase in Debtors	2.47	0.43	0.37	0.41	0.44
Repayment of Term Loan	1.93	3.85	3.85	3.85	3.85
Drawings	4.00	4.50	6.00	7.00	9.00
Taxation	-	0.26	0.74	1.34	2.25
TOTAL :	44.97	9.67	11.64	13.37	16.34
Opening Cash & Bank Balance	-	1.60	1.88	2.03	2.61
Add : Surplus	1.60	0.28	0.15	0.58	0.25
Closing Cash & Bank Balance	1.60	1.88	2.03	2.61	2.86

4.19. DEBT SERVICE COVERAGE RATIO

<u>CALCULATION OF D.S.C.R</u>					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	7.25	9.40	10.74	12.26	13.95
Interest on Term Loan	1.70	1.50	1.08	0.65	0.23
Total	8.96	10.90	11.81	12.91	14.18
<u>REPAYMENT</u>					
Instalment of Term Loan	1.93	3.85	3.85	3.85	3.85
Interest on Term Loan	1.70	1.50	1.08	0.65	0.23
Total	3.63	5.35	4.93	4.50	4.08
DEBT SERVICE COVERAGE RATIO	2.47	2.04	2.40	2.87	3.48
AVERAGE D.S.C.R.	2.65				