

# PROJECT REPORT

Of

## MILK PROCESSING(1000 LTR)

### PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **MILK PROCESSING(1000 LTR)**.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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## **INTRODUCTION**

India is endowed with a largest livestock population in the world having a total bovine population of 375 million compared to the world's total bovine population of 1550 million. It accounts for 58.2% of the world's buffalo population and 15.1% of the cattle population.

In order to meet the rapidly growing demand for milk with a focus to improve milk animal productivity and increase milk production, the Government has approved National Dairy Plan Phase. NDP-I will help to meet the projected national demand from domestic production through productivity enhancement, strengthening and expanding village level infrastructure for milk procurement and provide producers with greater access to markets.

The organized dairy sector (both cooperatives and private) is presently handles about 15 per cent of total milk production in the country. Thus it indicates, there is a wide scope for processing of milk and manufacture of milk products for domestic consumption as well as export.

Dairy products form one of the fastest growing segments in the livestock product export. The major export destinations are Bangladesh, Egypt, UAE, Algeria, Yemen Republic, Pakistan, Saudi Arabia and Malaysia. The major products exported were Butter & other milk fat, cheese, Whole Milk Powder, Skimmed Milk Powder, fresh cream, ghee, butter milk etc.

## **MARKET POTENTIAL OF THE PROJECT**

India is leading in production of milk and dairy is one of the major subsidiary activities of most of the farmers. Despite of highest production in the world there is always a demand supply miss match for milk and milk products. The demand for milk and milk products is at its peak during festive occasions like Diwali, Id, Holi, etc. In order to meet the demand during its peak, the milk needs to be converted to various milk products due to its perishable nature. But there is lack of processing infrastructure in the country. Therefore, there is good scope for financing milk processing activities in entire country.

The beneficiaries of the Project may be individuals, partnership firms, companies, corporate bodies, cooperative societies/unions etc. New entrepreneurs may start their business as an individual, proprietary concern, partnership firm or a joint stock company.

The financial assistance is extended for processing of milk with the following objectives.

- i) To enhance the keeping quality of milk
- ii) To avoid the economic losses to farmers by procuring the milk in time from them
- iii) To manufacture various milk products as per market demand
- iv) To provide quality products at affordable prices to the consumers.

## PROJECT DETAILS

### # RAW MILK RECEPTION PATTERN:

- Temperature : 30Deg.c.
- Type of milk : Raw mixed milk
- Smell & Taste : Good
- Alcohol stability of milk as required
- No sour milk is to be received at the dairy

### # PLANT CAPACITY:

Capacity of the milk processing Plant will be **200 LPH** considering morning milk collection 2.5 hours & Evening milk collection 2.5 hour. So @**1,000Ltr** Milk comfortably pasteurized per day.

### # FINISH MILK PACKING:

Liquid Milk : 1000Ltrs/day

### # ELECTRICAL REQUIREMENT:

- Total connected HP required : **Approx 40 HP** Three Phase 440V
- Standby arrangement of D G Sets(**30 KVA**)

### # CONSTRUCTED AREA REQUIRE FOR PLANT & MACHINERY:

For Processing of 1000 LPD Milk tentative area required **2400sq. ft** with minimum 15 ft height.

### # MANPOWER REQUIRED:

Well experienced plant operator, Quality control technician & unskilled worker required to be depute before commissioning of the plant & machine Y.

# **TECHNICAL SPECIFICATION**

## ***Reception Section***

### **Roller conveyor**

MS Roller conveyor 3mtr long with ms frame and roller with adjustable ball feet suitable for carrying 40ltr can

### **Can tipping bar**

The can tipping bar made out of ms pipe and Chanel and fitted wooden block on the top side for resting of milk cans

### **SS Weighing Bowl**

SS weighing bowl fabricated out of 2mm thick SS 304 sheet without let valve lifting arrangement

### **Weighing scale**

Electronic plat form type weighing scale with LED display for weighing of milk on reception

### **SS Dump Tank**

The dump tank will be fabricated out of 2mm thick SS 304 sheet without cover. The tank will have a gentle slope towards the outlet which be terminated at a 2 way valve.

### **Milk Transfer Pump**

The stainless steel milk transfer pump will be of sanitary design as per dairy standard. The TEFC drive motor on 415V 3 phase will be fitted with stainless steel shroud with louvers for air cooling and suitable arrangement for cable Connection

### **Inline Filter**

38 mm stainless steel inline filter complete with connections.

### **Can Scrubber**

This will be used to clean the cans inside and outside. This is 'U' shape vessel with two nos. of nylon brushes running at a slow rpm.

The cans to clean will be inserted inside this brush. One brush will clean the inside and other brush will clean outside. To clean the bottom of the can outside one no. small brush is provided. The trough is filled with warm water at 45 to 50 deg c. and 150 to 200 gram of washing sod is mixed with this water as detergent.

The scrubber will take one minute to clean the can. The main body is made from AISI 304 sheet. The unit will have 4nos. of legs with ball feet for floor adjustment, the drive mechanism provided at the side of the unit on a Ms. Mechanism. The unit will have reduction gear box coupled with a motor. Necessary drain arrangement is being provided for to drain the inside water.

### **Can Drip Saver**

*Standard can drip saver of SS-304 material will be required.*

### **Plate Chiller**

The plate heat exchanger is suitable to chill milk from a temperature of 35deg.c to 4deg.c. The plates of the heat exchanger will be made of SS 304 and will be compressed between the frame plate and pressure plate. The frame and pressure plate will be made of mild steel and clad with SS sheet.

## **MILK STORAGE SECTION**

### **Milk Storage Tank**

The storage tank will be Horizontal in design. The inner shell will be made of SS 304 and the outer shell will be made of SS sheet. The inner shell will be insulated with 100 mm thermocole. The bottom of the tank will have a gentle slope towards the outlet. The tank will be mounted on adjustable ball feet. The storage tank will be complete with the following accessories. SS man way, SS no foam inlet, Light glass assembly, sight glass assembly, two way out let valve, sampling cock, SS vertical agitator & driven by a suitable motor, MS ladder, Thermometer

### **Milk Transfer Pump**

The stainless steel milk transfer pump will be of sanitary design as per dairy standard. The TEFC drive motor on 415V 3phase will be fitted with stainless steel shroud with louvers for air cooling and suitable arrangement for cable Connection.

## MILK PROCESS SECTION

### MULTIDUTY MILK PASTEURISATION PLANT

Design Parameter:

Raw milk feed temperature	:	4deg.c/30deg.c
Milk Pasteurization temp	:	72.5-78deg.c
Holding time for Pasteurization	:	16 second
Finished milk discharge tem	:	4deg.c
Heat regeneration	:	90%
Chilled water flow rate	:	3 times milk flow rate
Chilled water feed temperature	:	1.5deg.c

Functional requirement:

This will be used for pasteurization of milk subsequently chilling it. Scope of Supply

**Balance tank:** The 150ltr capacity balance tank will be fabricated from 2mm thick SS 304sheet.The tank will be provided with cover, float, outlet and adjustable SS ball feet

**Milk pump:** The SS feed pump will be of sanitary design as per dairy standard suitable for above PHE. Flow controller: SS flow control device is required to manually regulate the required flow rate. The flow controller will be of sanitary design.

**Heat Exchanger:** The plates will be made from ss304 and will be of sanitary design. All the milk contact and exterior surfaces will be easily accessible or readily removable for cleaning and inspection.

**Gaskets:** The gasket will be sanitary type and the material will be food grade and be non-toxic, fat resistant, non-absorbent and will have smooth surface.

**Holding Section:** It will be designed for continuous holding of the product for at least 16 second at the pasteurization temperature. The holding section will be external tubular type.

**Supporting Frame:** The supporting frame for the plate pack will be of a self-supporting design made of mild steel and clad with stainless steel and provided with a manually operated SS tightening device.

## **PACKING SECTION**

### **Pouch Filling Machine**

The machine will be suitable to pack milk into polythene pouches 200/500 ML, The machine will be mechanical type.

### **Milk Transfer Pump**

The stainless steel milk transfer pump will be of sanitary design as per dairy standard. The TEFC drive motor on 415V 3 phase will be fitted with stainless steel shroud with louvers for air cooling and suitable arrangement for cable connection

### **Inter Connecting Pipes and Fitting: 38MM**

SS Pipes & fittings of suitable size and length in sanitary design as per compact lay of above plant

### **Cream Separator Online**

This is centrifuging rotating at very high speed to separate the fat and SNF both fat and SNF will be coming out separately. Online to separate excess fat in the milk all milk contact parts will be of AISI 304 and the body is made of cast iron the unit will be supplied with necessary tools and tackles for opening the bowl.

### **Inter Connecting Pipes and Fitting: 38MM**

SS Pipes & fittings of suitable size and length in sanitary design as per compact lay of above plant

### **Cold Store Room**

Cold store to store milk packed in poly packs kept in crates. The cold store cabinet will be insulated with thermocole panel the cold store room will be supplied with suitable capacity.

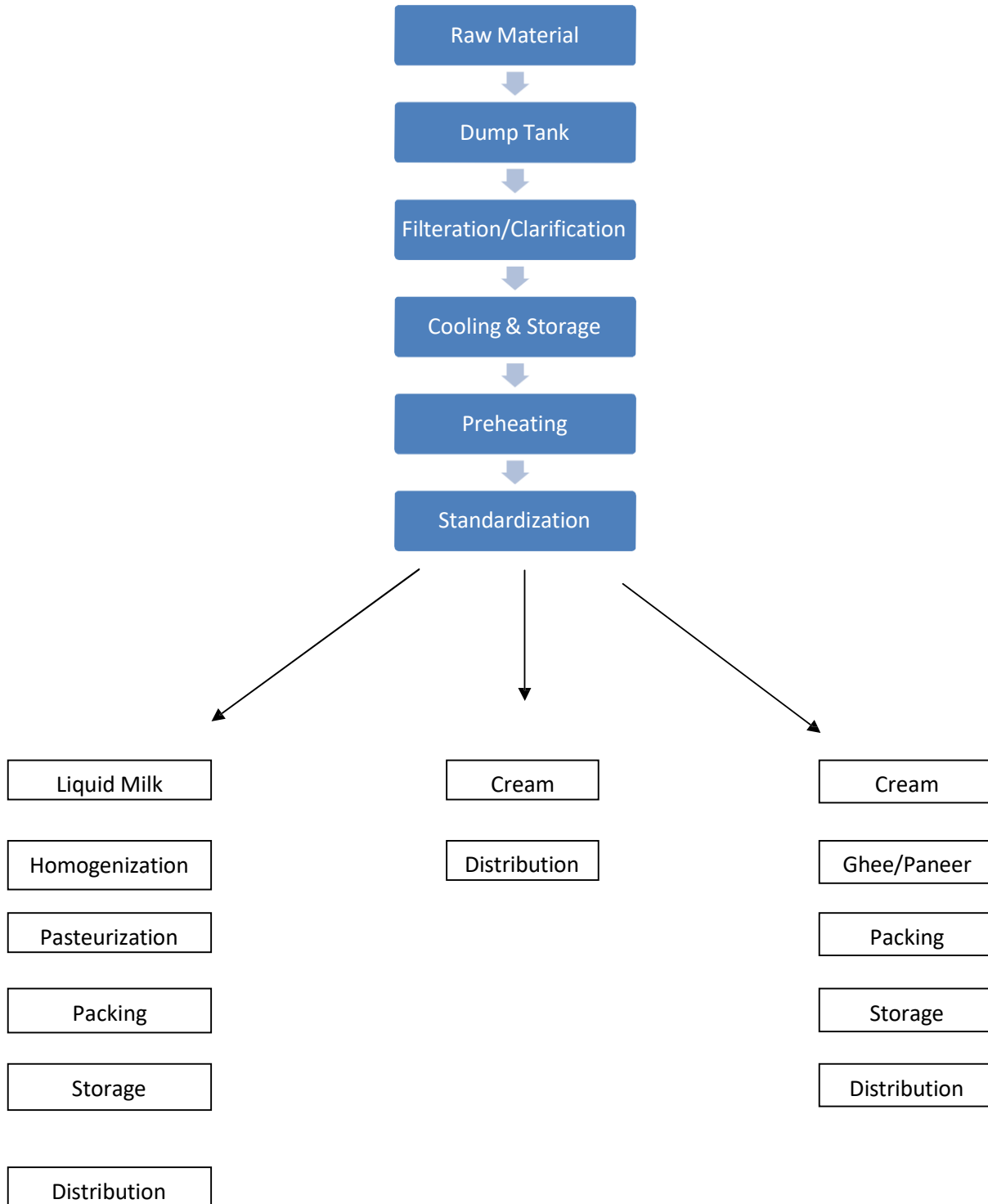


## MACHINERY DETAILS

S.NO.	ITEMS	QUANTITY	UNIT PRICE	FINAL PRICE
<b>Milk Reception</b>				
1	Bulk Milk Cooler 1Kl	1 NOS.	1,75,000	1,75,000
2	Pump	1 NOS.	20,000	20,000
		<b>Total</b>	<b>1,95,000</b>	<b>1,95,000</b>
<b>Milk Processing</b>				
1	Milk Pasteurizer -200LPH	1 NOS.	2,50,000	2,50,000
2	Packing Milk	1 NOS.	2,45,000	2,45,000
3	Storage Tank 1Kl	1 NOS.	1,15,000	1,15,000
		<b>Total</b>	<b>6,10,000</b>	<b>6,10,000</b>
<b>Curd Section and Chach Section</b>				
1	Curd Cogulation tank (200 Ltr)	1 NOS.	65,000	65,000
2	Hot Room (6x6)	1 NOS.	1,25,000	1,25,000
3	Blast Room(6x6)	1 NOS.	1,75,000	1,75,000
4	Piping and Erection	1 NOS.	45,000	45,000
		<b>Total</b>	<b>4,10,000</b>	<b>4,10,000</b>
<b>Paneer Section</b>				
1	Paneer PHE (Set)	1 NOS.	85,000	85,000
2	Dump Tank	2 NOS.	45,000	90,000
3	Balance tank	1 NOS.	25,000	25,000
4	Piping and Erection	1 NOS.	45,000	45,000
		<b>Total</b>	<b>2,00,000</b>	<b>2,45,000</b>

<b>Ghee Section</b>				
1	Ghee Kettle	1 NOS.	85,000	85,000
2	Clarifier	1 NOS.	55,000	55,000
3	Storage tank (500 Ltr)	1 NOS.	85,000	85,000
4	Piping and Erection	1 NOS.	45,000	45,000
		<b>Total</b>	<b>2,70,000</b>	<b>2,70,000</b>
<b>Utility Section</b>				
1	IBT 1.5 TR	1 NOS.	95,000	95,000
2	Boiler (500 Ltr)	1 SET	1,25,000	1,25,000
3	Piping	1 SET	75,000	75,000
4	Erection and Commissioning	1 NOS.	75,000	75,000
5	Electric Goods	1 Nos.	75,000	75,000
		<b>Total</b>	<b>4,45,000</b>	<b>4,45,000</b>
			<b>GRAND TOTAL</b>	<b>21,75,000</b>
			GST @12%	2,61,000
			<b>TOTAL</b>	<b>24,36,000</b>

# Manufacturing Process



MILK PROCESSING PLANT FEASIBILITY STUDY

**OPERATIONAL ASSUMPTIONS**

		<u>No. of Days</u>
1	Sep- Oct	60
	Nov- Feb	120
	Mar	30
	Apr	30
	May- Aug	125
	<b>Days of Plant Operation in a y</b>	<b>365</b>
2	<b>Power &amp; Steam Related Assumptions:</b>	
	Total Installed Load	20.00
	Power Factor	0.90
	Run Hours	8.00
	Plant Load Factor	65%
	Unit Rate	6.50
	Consumption of Steam/ Hour	100.00
	Cost of Steam (Rs/Kg)	2.00
	Full Load Run hours	<u>8</u>
3	Raw Milk Quantity	1,000 Litr/ day

<b>Sales Price Assumptions:</b>	Price (Rs/KG)	Packing Rs/KG
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Curd/Chach	120	2
Paneer	300	2
Toned Milk	62	3

Sale Price	I	II	III	IV	V	VI
Curd/Chach	120	124	129	135	142	149
Paneer	300	309	321	337	354	372
Toned Milk	62	64	67	70	74	78

**Increased By 2-5% Annually**

<b>RAW MATERIAL PURCHASE</b>	<b>RS/KG</b>
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<u>Proportions</u>		
Sep- Oct	Rs/ KG	30
Nov- Feb	Rs/ KG	23
Mar	Rs/ KG	33
Apr	Rs/ KG	33
May- Aug	Rs/ KG	34
<b>Average Raw Material Cost</b>		<b>30.60</b>

6 Material Balancing/ Day

Raw Milk 1,000 Ltr

Final Product Mix

Curd ( 1Ltr For 1 Kg)	30
Paneer ( 6 ltr For 1 Kg)	30
Toned milk	800

7 **ELECTRCAL LOAD CALCULATION**

Total Installed Load	KVA	20
Total Units Consumption Daily	KWH	104
Total Units Consumption (Annu KWH)		37,960

**TOTAL POWER COST**      **Rs in Lacs**      **2.47**

8 **CALCULATION FOR FUEL FOR STEAM BOILER**

Total Amount / Day	Rs.	1,600
Total Amount / Year	<b>Rs in Lacs</b>	5.84
Total power and fuel		8.31

9 <b><u>Raw Material Cost:</u></b>	<u>Days</u>	<u>Milk Collected</u>	<u>Cost/ KG</u>	<u>Total Cost/ Day</u> <u>Rs in Lacs</u>
Sep- Oct	60	1,000	30	18
Nov- Feb	120	1,000	23	28
Mar	30	1,000	33	10
Apr	30	1,000	33	10
May-Aug	125	1,000	34	43
<b>TOTAL ANNUAL RAW MILK COST</b>				<b>107.90</b>

<b><u>Raw Milk Price</u></b>	<b><u>2019-20</u></b>	<b><u>2020-21</u></b>	<b><u>2021-22</u></b>	<b><u>2022-23</u></b>	<b><u>2023-24</u></b>	<b><u>2024-25</u></b>
Raw Milk	107.90	110.00	113.00	116.00	121.00	127.00
<b>Increased By 2-5% Annually</b>						

10 **Cost of Employees**

<b><u>Position</u></b>	<b><u>Numbers</u></b>	<b><u>CTC/Year/ Person Rs (000s)</u></b>	<b><u>Total Cost Rs in Lacs</u></b>
Unskilled Workmen	3	72,000	2.16
Skilled Workmen	1	84,000	0.84
Plant Supervisor	1	96,000	0.96
Sales Executives	1	96,000	0.96
Commercial Executives	1	120,000	1.20
QC TECHNICIAN	1	144,000	1.44
Plant Head	1	240,000	2.40
Total Cost of Employees	9		9.96

11 Chemical Consumption      Rs in Lacs      **1.20** At Capacity

12 <b><u>Overhead As %age of Sales/ Fi</u></b>	<b><u>2018-2019</u></b>	<b><u>2019-2020</u></b>	<b><u>2020-2021</u></b>	<b><u>2021-2022</u></b>	<b><u>2022-2023</u></b>	<b><u>2023-2024</u></b>
Capacity						
Selling, General & Admn Exp	6.00%	8.00%	9.00%	10.00%	11.00%	12.00%
Rejection/wastage	1.50%	1.50%	1.50%	1.50%	1.50%	1.50%

14 Rate of Interest on Term Loan      **11.00%**      **P.A.**

15 No. of Instlments for Term Loan Repayment      **58 Months**  
(After one year Moratorium)

16 **Depreciation Rates Assumed:**

Building	10%
Plant & Machinery	15%
Misc. Fixed Assets	15%

**(Method of Computing Depreciation: WDV Method)**

## **PROJECTED CASH FLOW STATEMENT**

PARTICULARS	I	II	III	IV	V
<b><u>SOURCES OF FUND</u></b>					
Increase In Own Capital	2.41	-	-	-	-
Profit After Tax	3.36	4.85	6.66	9.80	12.88
Depreciation	3.29	2.79	2.37	2.02	1.72
Increase In Term Loan from bank	19.72	-	-	-	-
Increase In Sundry Creditors	2.16	0.22	0.24	0.26	0.29
Increase in Other Liabilities	1.00	0.10	0.11	0.12	0.13
<b>TOTAL :</b>	<b>31.93</b>	<b>7.96</b>	<b>9.39</b>	<b>12.20</b>	<b>15.02</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	21.91	-	-	-	-
Increase in Stock	0.27	0.03	0.04	0.04	0.05
Increase in Debtors	1.36	0.16	0.19	0.21	0.24
Increase in Sundry Advances	3.00	1.00	1.00	1.00	1.00
Repayment of Term Loan from Bank	2.19	4.38	4.38	4.38	4.38
Drawings	2.00	3.00	4.00	5.00	10.00
<b>TOTAL :</b>	<b>30.73</b>	<b>8.58</b>	<b>9.61</b>	<b>10.63</b>	<b>15.67</b>
Opening Cash & Bank Balance	-	1.21	0.59	0.37	1.93
Add : Surplus	1.21	(0.62)	(0.22)	1.57	(0.65)
<b>Closing Cash &amp; Bank Balance</b>	<b>1.21</b>	<b>0.59</b>	<b>0.37</b>	<b>1.93</b>	<b>1.28</b>

## **PROJECTED BALANCE SHEET**

PARTICULARS	I	II	III	IV	V
<b><u>SOURCES OF FUND</u></b>					
Own Capital	2.41	3.77	5.63	8.29	13.09
Add : Net Profit	3.36	4.85	6.66	9.80	12.88
Less : Drawings	2.00	3.00	4.00	5.00	10.00
Closing Capital	3.77	5.63	8.29	13.09	15.97
Term Loan From Bank	17.53	13.14	8.76	4.38	(0.00)
<b>TOTAL :</b>	<b>21.30</b>	<b>18.77</b>	<b>17.05</b>	<b>17.47</b>	<b>15.97</b>
<b><u>APPLICATION OF FUND</u></b>					
Fixed Assets					
Gross Block	21.91	21.91	21.91	21.91	21.91
Depreciation	3.29	6.08	8.45	10.47	12.19
Net Block	<b>18.62</b>	<b>15.83</b>	<b>13.45</b>	<b>11.44</b>	<b>9.72</b>
<b>Current Assets</b>					
Sundry Debtors	1.36	1.52	1.71	1.92	2.16
Inventory	0.27	0.30	0.34	0.38	0.43
Cash and Bank	1.21	0.59	0.37	1.93	1.28
Sundry Advances	3.00	4.00	5.00	6.00	7.00
<b>Total Current Assets</b>	<b>5.84</b>	<b>6.42</b>	<b>7.42</b>	<b>10.24</b>	<b>10.87</b>
<b>Current Liabilities</b>					
Sundry Creditors	2.16	2.37	2.61	2.87	3.16
Other Liabilities	1.00	1.10	1.21	1.33	1.46
	<b>3.16</b>	<b>3.47</b>	<b>3.82</b>	<b>4.20</b>	<b>4.62</b>
				-	
<b>Net Current Assets</b>	2.68	2.94	3.60	6.03	6.25
<b>TOTAL :</b>	<b>21.30</b>	<b>18.77</b>	<b>17.05</b>	<b>17.47</b>	<b>15.97</b>

**PROJECTED PROFITABILITY STATEMENT****COMPUTATION OF DEPRECIATION**

PARTICULARS	I	II	III	IV	V
<b>A) SALES</b>					
Sale of Toned Milk, Curd & Paneer	99.02	110.98	124.90	139.95	157.59
<b>Total (A)</b>	<b>99.02</b>	<b>110.98</b>	<b>124.90</b>	<b>139.95</b>	<b>157.59</b>
<b>B) COST OF SALES</b>					
Raw Material Consumed	64.74	71.50	79.10	87.00	96.80
Power & Fuel	4.98	5.40	5.82	6.23	6.65
Labour & Wages	2.08	1.66	3.12	3.50	3.94
Stores Consumption	0.72	0.80	0.86	0.92	0.98
Packaging Cost	3.94	4.35	4.68	5.02	5.35
Cost of Production	76.46	83.71	93.58	102.67	113.72
<b>Add : Opening Stock</b>	-	0.27	0.30	0.34	0.38
<b>Less : Closing Stock</b>	0.27	0.30	0.34	0.38	0.43
<b>Cost of Sales (B)</b>	<b>76.19</b>	<b>83.68</b>	<b>93.54</b>	<b>102.62</b>	<b>113.67</b>
<b>C) GROSS PROFIT (A-B)</b>	22.83	27.30	31.36	37.32	43.92
<b>G.P.Ratio</b>	<b>23.06%</b>	<b>24.60%</b>	<b>25.11%</b>	<b>26.67%</b>	<b>27.87%</b>
D) Interest on Term Loan	2.73	2.77	2.27	1.79	1.31
E) Salary	7.51	8.01	8.72	9.47	10.26
F) Adm & Selling Expenses Exp.	5.94	8.88	11.24	13.99	17.34
G) Depreciation	3.29	2.79	2.37	2.02	1.72
<b>TOTAL</b>	<b>19.47</b>	<b>22.45</b>	<b>24.61</b>	<b>27.27</b>	<b>30.62</b>
I) NET PROFIT	3.36	4.85	6.75	10.05	13.30
<b>N.P.Ratio</b>	<b>3.40%</b>	<b>4.37%</b>	<b>5.41%</b>	<b>7.18%</b>	<b>8.44%</b>
K) Tax	-	-	0.09	0.25	0.41
L) Profit After Tax	3.36	4.85	6.66	9.80	12.88
M) DEPRECIATION & PRELIMINARY EXP ADD B	3.29	2.79	2.37	2.02	1.72
N) NET CASH ACCRUALS	6.65	7.65	9.04	11.82	14.60

Description	Plant & Machinery	TOTAL
Rate of Depreciation	15.00%	
<b>Opening Balance</b>	-	-
Addition During The year	21.91	21.91
Less : Depreciation	3.29	3.29
WDV at end of Year 1	18.62	18.62
Less : Depreciation	2.79	2.79
WDV at end of Year 2	15.83	15.83
Less : Depreciation	2.37	2.37
WDV at end of Year 3	13.45	13.45
Less : Depreciation	2.02	2.02
WDV at end of Year 4	11.44	11.44
Less : Depreciation	1.72	1.72
WDV at end of Year 5	9.72	9.72
Less : Depreciation	1.46	1.46
WDV at end of Year 6	8.26	8.26



**PROJECT AT GLANCE**

NAME OF COMPANY : ~~XXXXXXXXXXXXXXXXXX~~

NATURE OF INDUSTRY : MILK PROCESSING PLANT

CONSTITUTION : XXXXXXXXXXXXXXXX

MANAGEMENT : XXXXXXXXX  
XXXXXXXXXX  
XXXXXXXXXX

DATE OF ESTABLISHMENT : XXXXXXXXX

REGISTERED OFFICE : XXXXXXXXXXXXXXXXXXXXXXXX  
XXXXXXXXXXXXXXXXXXXXXXXXXX

FACTORY LOCATION : XXXXXXXXXXXXXXXXXXXXXXXX

CONTACT NO : XXXXXXXXXXXXXXXXXXXXXXXX

CAPACITY OF PLANT : Processing of 1000 Litres of Milk Per day

PRODUCTS : Curd  
Paneer  
Toned Milk

FINANCIAL ASSISTANCE REQUIRED : Term Loan 21.72 Lacs

SECURITY OFFERED : **PRIMARY SECURITY**  
**Term Loan**  
Hypothecation of Plant & Mahinery and Other Assets

**CALCULATION OF D.S.C.R**

<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
Cash Accruals	6.65	7.65	9.04	11.82	14.60
Interest on Term Loan	2.73	2.77	2.27	1.79	1.31
<b>Total</b>	<b>9.38</b>	<b>10.41</b>	<b>11.31</b>	<b>13.61</b>	<b>15.91</b>
<b><u>REPAYMENT</u></b>					
Instalment of Term Loan	2.19	4.38	4.38	4.38	4.38
Interest on Term Loan	2.73	2.77	2.27	1.79	1.31
<b>Total</b>	<b>4.92</b>	<b>7.15</b>	<b>6.66</b>	<b>6.17</b>	<b>5.69</b>
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>1.91</b>	<b>1.46</b>	<b>1.70</b>	<b>2.20</b>	<b>2.79</b>
<b>AVERAGE D.S.C.R.</b>					<b>1.98</b>

## FINANCIAL INDICATORS

PARTICULARS	2,019	2,020	2,021	2,022	2,023
TURNOVER	99.02	110.98	124.90	139.95	157.59
GROSS PROFIT	22.83	27.30	31.36	37.32	43.92
<b>G.P. RATIO</b>	<b>23.06%</b>	<b>24.60%</b>	<b>25.11%</b>	<b>26.67%</b>	<b>27.87%</b>
NET PROFIT	3.36	4.85	6.75	10.05	13.30
<b>PAT/SALES RATIO</b>	<b>3.4%</b>	<b>4.4%</b>	<b>5.4%</b>	<b>7.2%</b>	<b>8.4%</b>
CURRENT ASSETS	5.84	6.42	7.42	10.24	10.87
CURRENT LIABILITIES	3.16	3.47	3.82	4.20	4.62
<b>CURRENT RATIO</b>	<b>1.85</b>	<b>1.85</b>	<b>1.94</b>	<b>2.44</b>	<b>2.35</b>
TOTAL NET WORTH	3.77	5.77	8.63	12.29	18.09
TOTAL OUTSIDE LIABILITIES	17.53	13.14	8.76	4.38	(0.00)
<b>TOL/TNW</b>	<b>4.65</b>	<b>2.28</b>	<b>1.02</b>	<b>0.36</b>	<b>(0.00)</b>
PBDIT	9.38	10.41	11.40	13.86	16.32
INTEREST	2.73	2.77	2.27	1.79	1.31
INTEREST COVERAGE RATIO	3.44	3.76	5.01	7.73	12.45
WDV	18.62	15.83	13.45	11.44	9.72

## COST OF PROJECT

Particulars	Amount	% Margin	(Rs. In Lacs)	
			Margin	Finance
Land			Owned/Rented	
Plant & Machinery (As per Quotations)	21.91	10%	2.19	19.72
Working Capital	2.22	10%	0.22	2.00
<b>Total</b>	<b>24.13</b>		<b>2.41</b>	<b>21.72</b>

## MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.41
Working Capital	2.00
Term Loan	19.72
<b>Total</b>	<b>24.13</b>

REPAYMENT SCHEDULE OF TERM LOAN							
Year	Particulars	Amount	Addition	Total	Interest	Intt. 11.00%	
						Repayment	CI Balance
I	Opening Balance						
	April	-	19.72	19.72	-	-	19.72
	May	19.72	-	19.72	0.18	-	19.72
	June	19.72	-	19.72	0.18	-	19.72
	July	19.72	-	19.72	0.18	-	19.72
	August	19.72	-	19.72	0.27	-	19.72
	September	19.72	-	19.72	0.36	-	19.72
	October	19.72	-	19.72	0.28	0.37	19.35
	November	19.35	-	19.35	0.26	0.37	18.99
	December	18.99	-	18.99	0.25	0.37	18.62
	January	18.62	-	18.62	0.27	0.37	18.26
	February	18.26	-	18.26	0.25	0.37	17.89
	March	17.89	-	17.89	0.24	0.37	17.53
					<b>2.73</b>	<b>2.19</b>	
III	Opening Balance						
	April	17.53	-	17.53	0.26	0.37	17.16
	May	17.16	-	17.16	0.24	0.37	16.80
	June	16.80	-	16.80	0.23	0.37	16.43
	July	16.43	-	16.43	0.25	0.37	16.07
	August	16.07	-	16.07	0.23	0.37	15.70
	September	15.70	-	15.70	0.22	0.37	15.34
	October	15.34	-	15.34	0.24	0.37	14.97
	November	14.97	-	14.97	0.22	0.37	14.61
	December	14.61	-	14.61	0.21	0.37	14.24
	January	14.24	-	14.24	0.23	0.37	13.87
	February	13.87	-	13.87	0.21	0.37	13.51
	March	13.51	-	13.51	0.22	0.37	13.14
					<b>2.77</b>	<b>4.38</b>	
IV	Opening Balance						
	April	13.14	-	13.14	0.22	0.37	12.78
	May	12.78	-	12.78	0.20	0.37	12.41
	June	12.41	-	12.41	0.19	0.37	12.05
	July	12.05	-	12.05	0.21	0.37	11.68
	August	11.68	-	11.68	0.19	0.37	11.32
	September	11.32	-	11.32	0.18	0.37	10.95
	October	10.95	-	10.95	0.20	0.37	10.59
	November	10.59	-	10.59	0.18	0.37	10.22
	December	10.22	-	10.22	0.17	0.37	9.86
	January	9.86	-	9.86	0.19	0.37	9.49
	February	9.49	-	9.49	0.17	0.37	9.13
	March	9.13	-	9.13	0.17	0.37	8.76
					<b>2.27</b>	<b>4.38</b>	

<b>V</b>	Opening Balance						
	April	8.76	-	8.76	0.18	0.37	8.40
	May	8.40	-	8.40	0.17	0.37	8.03
	June	8.03	-	8.03	0.15	0.37	7.67
	July	7.67	-	7.67	0.17	0.37	7.30
	August	7.30	-	7.30	0.16	0.37	6.94
	September	6.94	-	6.94	0.14	0.37	6.57
	October	6.57	-	6.57	0.16	0.37	6.21
	November	6.21	-	6.21	0.14	0.37	5.84
	December	5.84	-	5.84	0.13	0.37	5.48
	January	5.48	-	5.48	0.15	0.37	5.11
	February	5.11	-	5.11	0.13	0.37	4.75
	March	4.75	-	4.75	0.11	0.37	4.38
					<b>1.79</b>	<b>4.38</b>	
<b>VI</b>	Opening Balance						
	April	4.38	-	4.38	0.14	0.37	4.02
	May	4.02	-	4.02	0.12	0.37	3.65
	June	3.65	-	3.65	0.11	0.37	3.29
	July	3.29	-	3.29	0.13	0.37	2.92
	August	2.92	-	2.92	0.11	0.37	2.56
	September	2.56	-	2.56	0.10	0.37	2.19
	October	2.19	-	2.19	0.12	0.37	1.83
	November	1.83	-	1.83	0.10	0.37	1.46
	December	1.46	-	1.46	0.09	0.37	1.10
	January	1.10	-	1.10	0.11	0.37	0.73
	February	0.73	-	0.73	0.09	0.37	0.37
	March	0.37	-	0.37	0.09	0.37	(0.00)
					<b>1.31</b>	<b>4.38</b>	
	DOOR TO DOOR	60	MONTHS				
	MORATORIUM PERIC	6	MONTHS				
	REPAYMENT PERIOD	54	MONTHS				

XXXXXXXXXXXX

**COMPUTATION OF CAPACITY OF THE PROJECT (PASTEURIZATION PLANT)**

Total capacity of the Plant is to process 1000 Litres of Milk per day. So, the capacity of the project will be as follows:-	At 100% Capacity
Capacity of the plant per day	1000 Litres of Milk per day
No. of working days in a year	300 days
Total capacity of the project	300000 Litres of Milk per year
Produce to be obtained after rejection/wastage	
Curd/Chach	29.55 Kg per day
Paneer	29.55 Kg per day
Toned Milk	689.5 Litres of Milk per day
Total Produce to be obtained after rejection/wastage	
Curd/Chach	8865 Kg per Year
Paneer	8865 Kg per Year
Toned Milk	206850 Litres of Milk per year

**COMPUTATION OF PRODUCTS TO BE PRODUCED**

**QUANTITY WISE**

Particulars	I	II	III	IV	V
Capacity utilisation	60%	65%	70%	75%	80%
Curd	5,319	5,762	6,206	6,649	7,092
Paneer	5,319	5,762	6,206	6,649	7,092
Toned Milk	124,110	134,453	144,795	155,138	165,480
<b>Total Produce (in Kgs)</b>	<b>134,748.00</b>	<b>145,977.00</b>	<b>157,206.00</b>	<b>168,435.00</b>	<b>179,664.00</b>

**COMPUTATION OF SALES**

Particulars	I	II	III	IV	V
Curd	6.38	7.15	8.01	8.98	10.07
Paneer	15.96	17.81	19.92	22.41	25.11
Toned Milk	76.95	86.05	97.01	108.60	122.46
Add:- Opening Stock	-	0.27	0.30	0.34	0.38
Less :- Closing Stock	0.27	0.30	0.34	0.38	0.43
<b>Total Sales (Rs in Lacs)</b>	<b>99.02</b>	<b>110.98</b>	<b>124.90</b>	<b>139.95</b>	<b>157.59</b>

**COMPUTATION OF DIRECT COST**

Particulars	I	II	III	IV	V
Raw Material Consumed	64.74	71.50	79.10	87.00	96.80
Packing Material Consumed	3.94	4.35	4.68	5.02	5.35
Chemical Consumption	0.72	0.80	0.86	0.92	0.98
<b>Total Direct Cost (Rs in Lacs)</b>	<b>69.40</b>	<b>76.64</b>	<b>84.64</b>	<b>92.94</b>	<b>103.13</b>

**COMPUTATION OF SALARY EXPENSES**

Particulars	I	II	III	IV	V
Managerial Staffs	3.84	4.03	4.44	4.88	5.37
Production Related Staffs	3.67	3.98	4.28	4.59	4.90
<b>Total Salary Expenses (Rs in Lacs)</b>	<b>7.51</b>	<b>8.01</b>	<b>8.72</b>	<b>9.47</b>	<b>10.26</b>
Power & Fuel Consumption	4.98	5.51	5.93	6.36	6.78
<b>Total Power &amp; Fuel Expense (Rs in Lacs)</b>	<b>4.98</b>	<b>5.51</b>	<b>5.93</b>	<b>6.36</b>	<b>6.78</b>

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