



## **Model Detailed Project Report**

### **PANEER MAKING UNIT**

**Prepared by**

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## 1. INTRODUCTION



Paneer is a South Asian variety of soft cheese obtained by acid and heat coagulation of milk. It is a popular indigenous dairy product of India, is similar to an unripened variety of soft cheese which is used in the preparation of a variety of culinary dishes and snacks. It is obtained by heat and acid coagulation of milk, entrapping almost all the fat, casein complexed with denatured whey proteins and a portion of salts and lactose. It is a rich source of high-quality animal protein, fat, minerals and vitamins. The production of paneer has been largely confined to the unorganized dairy sector which employs traditional, inefficient methods of manufacture.

## 2. MARKET POTENTIAL:

Paneer is a staple ingredient in many Indian dishes and can be used fresh or deep fried. Paneer is commonly used in sweets, snacks or with vegetables. Various other uses are follows:

- Paneer can be included in curries, particularly with tomatoes, potatoes or peas.
- Cubes of paneer can be added to soup to provide texture.
- Fresh paneer can be boiled in sugar syrup and served as a sweet.
- Paneer itself has a rather bland flavour but it can act as a flavour carrier. Therefore, it is excellent marinated or used in a curry or sauce.

The paneer market in India grew at a CAGR of 12.5% during 2014-2019. As a considerable part of population consists of vegetarians, paneer emerges as a viable option. Apart from this, factors such as increasing population, urbanisation rates, improved cold supply chain and growing deep freezer penetration are also influencing the market growth. We can expect the market to exhibit strong growth during 2020-2025.

### **3. PRODUCT DESCRIPTION**

#### **3.1 PRODUCT BENEFITS**

- Reduces the Risk of Breast Cancer
- Makes Teeth & Bones Strong
- Aids in Weight Loss
- Ensures a Healthy Digestive System.
- Great for Those Having Diabetes.

#### **3.2 RAW MATERIAL**

Basic raw material requirement are as follows:

1. Milk
2. Citric Acid
3. Packing Material

### **3.3 MANUFACTURING PROCESS**

The milk is procured from vendors and stored in storage tanks prior to primary processing of milk, boiler is utilized to generate steam which is utilized in various process of plant which generally includes heating of milk in this case.

This steam is utilized in pasteurizer to heat the milk for pasteurization at temperature ranging from 80 to 90 degree Celsius, after appropriate holding time which is 5 minutes at high temperature steady state, milk is sent to another holding tank which stores the milk so as to cool it to 80 to 75 degree Celsius. As cooling curve for milk is exponential, it does not require any significant cooling time even without any addition cooling arrangement. If a faster cooling is to be achieved ambient water circulation through jackets of holding tank s sufficient.

After this temperature is achieved, the milk is pumped into coagulation tank, which has steam jackets to maintain temperature of milk, once steady state temperature is achieved which is 70 degree Celsius for buffalo milk and 80 degree Celsius for cow milk, coagulant is added citric acid, lactic acid etc. The milk is stirred gently and manually till whey separates out.

The mixture is allowed to settle and excess whey is drained out, till it reaches close to top surface of coagulated mass. This coagulated mass is fed to paneer press, which essential press the paneer in order to drain out most of water within coagulated mass, in order to obtain a large block of paneer.





This paneer block is manually cut in required sizes, checked for required weight, packed and stored in IBT Chilling Machine prior to dispatch, which is essential in order to reduce bacterial growth as well as allows paneer to be stored till dispatch.




## **4. PROJECT COMPONENTS**

### **4.1 Land & Building**

The approximate total area required for complete small-scale factory setup is 1000-1200 Sq. ft. approximately smooth production

## 4.2 Plant & Machinery

|   |   |   |
|---|---|---|
| <p><b>Milk Pasteurizer</b></p>                          | <p>There are two distinct purposes for the process of milk pasteurization:</p> <p>Public Health Aspect - to make milk and milk products safe for human consumption by destroying all bacteria that may be harmful to health (pathogens)</p> <p>Keeping Quality Aspect - to improve the keeping quality of milk and milk products.</p> |    |
| <p><b>IBT (Ice Bank Tank) Type Chilling Machine</b></p> | <p>Ice Bank Tank (IBT) is a system which is used to store energy in the form of ice. It is applicable in dairy industry for quick process in short time with certain limit of power load.</p>   |   |
| <p><b>Paneer Press</b></p>                              | <p>It is used to press Paneer according to the requirement of moisture and texture in the Paneer. This press has great applicability in pressing Paneer from coagulated milk.</p>   |  |
| <p><b>Paneer Coagulation Tank</b></p>                   | <p>This tank is used for milk tearing purpose</p>   |  |

|                                 |   |   |
|---------------------------------|---|---|
| <p><b>Milk Storage Tank</b></p> | <p>The milk storage tank is ideal for cooling and holding milk at a cold temperature until it's further processed. The machine is made of stainless steel and used to store the raw milk in good condition. The milk storage tank is specifically selected based on the needs and requirements of each individual customer.</p> |    |
| <p><b>Boiler</b></p>            | <p>Boilers are used to produce steam. The generation part of a steam system uses a boiler to add energy to a feedwater supply to generate steam.</p>  |    |
| <p><b>Weighing balance</b></p>  | <p>It is used to measure the quantity weight of the product and raw material composition.</p>   |  |

**Note:** Approx. Total Machinery cost shall be Rs 12.50 lakhs excluding GST and Transportation Cost.

#### **4.3 Power Requirement**

The borrower shall require power load of 30 KW which shall be applied with Power Corporation. However, for standby power arrangement the borrower shall purchase DG Set.

#### **4.4 Manpower Requirement**

13 Manpower are required for the Paneer Manufacturing business:

Includes:

1 Supervisor

1 Plant Operator

2 Skilled Labour

4 Unskilled Labour

4 Administrative Staffs

1 Accountant

## 5. FINANCIALS

### 5.1 Cost of Project

| PARTICULARS                           | AMOUNT       | Own Contribution | Bank Finance |
|---------------------------------------|--------------|------------------|--------------|
| Land & Building                       |              | 25.00%           | 75.00%       |
|                                       |              | Owned /rented    |              |
| Plant & Machinery                     | 12.50        | 3.13             | 9.38         |
| Furniture & Fixtures and Other Assets | 1.00         | 0.25             | 0.75         |
| Working capital                       | 8.00         | 2.00             | 6.00         |
| <b>Total</b>                          | <b>21.50</b> | <b>5.38</b>      | <b>16.13</b> |

### 5.2 Means of Finance

| PARTICULARS           | AMOUNT       |
|-----------------------|--------------|
| Own Contribution      | 5.38         |
| Bank Loan             | 10.13        |
| Working capital Limit | 6.00         |
| <b>Total</b>          | <b>21.50</b> |



### 5.3 Projected Balance Sheet

| <b>PROJECTED BALANCE SHEET</b> |                 |                 |                 |                 |                 | (in Lacs) |
|--------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------|
| <b>PARTICULARS</b>             | <b>1st year</b> | <b>2nd year</b> | <b>3rd year</b> | <b>4th year</b> | <b>5th year</b> |           |
| <b><u>Liabilities</u></b>      |                 |                 |                 |                 |                 |           |
| Capital                        |                 |                 |                 |                 |                 |           |
| opening balance                |                 | 6.18            | 7.49            | 9.82            | 12.13           |           |
| <i>Add:- Own Capital</i>       | 5.38            |                 |                 |                 |                 |           |
| Add:- Retained Profit          | 2.05            | 3.32            | 5.33            | 7.31            | 9.34            |           |
| Less:- Drawings                | 1.25            | 2.00            | 3.00            | 5.00            | 7.00            |           |
| Closing Blance                 | <u>6.18</u>     | <u>7.49</u>     | <u>9.82</u>     | <u>12.13</u>    | <u>14.47</u>    |           |
| Term Loan                      | 9.00            | 6.75            | 4.50            | 2.25            | -               |           |
| Working Capital Limit          | 6.00            | 6.00            | 6.00            | 6.00            | 6.00            |           |
| Sundry Creditors               | 1.31            | 1.49            | 1.69            | 1.90            | 2.12            |           |
| <b>TOTAL :</b>                 | <b>22.49</b>    | <b>21.73</b>    | <b>22.00</b>    | <b>22.27</b>    | <b>22.59</b>    |           |
| <b><u>Assets</u></b>           |                 |                 |                 |                 |                 |           |
| <b>Fixed Assets (Gross)</b>    | 13.50           | 13.50           | 13.50           | 13.50           | 13.50           |           |
| Gross Dep.                     | 1.98            | 3.66            | 5.09            | 6.32            | 7.36            |           |
| <b>Net Fixed Assets</b>        | <b>11.53</b>    | <b>9.84</b>     | <b>8.41</b>     | <b>7.18</b>     | <b>6.14</b>     |           |
| <b>Current Assets</b>          |                 |                 |                 |                 |                 |           |
| Sundry Debtors                 | 7.03            | 8.18            | 9.25            | 10.40           | 11.65           |           |
| Stock in Hand                  | 2.28            | 2.58            | 2.89            | 3.23            | 3.61            |           |
| Cash and Bank                  | 1.65            | 1.14            | 1.46            | 1.46            | 1.19            |           |
| <b>TOTAL:</b>                  | <b>22.49</b>    | <b>21.73</b>    | <b>22.00</b>    | <b>22.27</b>    | <b>22.59</b>    |           |

### 5.4 Projected Cash Flow

| <b>PROJECTED CASH FLOW STATEMENT</b> |  | (in Lacs) |
|--------------------------------------|--|-----------|
|                                      |  |           |

| <b>PARTICULARS</b>                     | <b>1st<br/>year</b> | <b>2nd<br/>year</b> | <b>3rd<br/>year</b> | <b>4th<br/>year</b> | <b>5th year</b> |
|--|---------------------|---------------------|---------------------|---------------------|-----------------|
| <b><u>SOURCES OF FUND</u></b>          |                     |                     |                     |                     |                 |
| Own Margin                             | 5.38                |                     |                     |                     |                 |
| Net Profit                             | 2.05                | 3.32                | 5.34                | 7.43                | 9.57            |
| Depreciation & Exp. W/off              | 1.98                | 1.68                | 1.44                | 1.22                | 1.04            |
| Increase in Cash Credit                | 6.00                | -                   | -                   | -                   | -               |
| Increase In Term Loan                  | 10.13               | -                   | -                   | -                   | -               |
| Increase in Creditors                  | 1.31                | 0.18                | 0.20                | 0.21                | 0.23            |
| <b>TOTAL :</b>                         | <b>26.84</b>        | <b>5.18</b>         | <b>6.97</b>         | <b>8.87</b>         | <b>10.84</b>    |
| <b><u>APPLICATION OF FUND</u></b>      |                     |                     |                     |                     |                 |
| Increase in Fixed Assets               | 13.50               |                     |                     |                     |                 |
| Increase in Stock                      | 2.28                | 0.30                | 0.32                | 0.34                | 0.37            |
| Increase in Debtors                    | 7.03                | 1.14                | 1.07                | 1.16                | 1.25            |
| Repayment of Term Loan                 | 1.13                | 2.25                | 2.25                | 2.25                | 2.25            |
| Drawings                               | 1.25                | 2.00                | 3.00                | 5.00                | 7.00            |
| Taxation                               | -                   | -                   | 0.02                | 0.12                | 0.23            |
| <b>TOTAL :</b>                         | <b>25.18</b>        | <b>5.69</b>         | <b>6.65</b>         | <b>8.87</b>         | <b>11.10</b>    |
| Opening Cash & Bank Balance            | -                   | 1.65                | 1.14                | 1.46                | 1.46            |
| Add: Surplus                           | 1.65                | (0.51)              | 0.32                | (0.00)              | (0.26)          |
| <b>Closing Cash &amp; Bank Balance</b> | <b>1.65</b>         | <b>1.14</b>         | <b>1.46</b>         | <b>1.46</b>         | <b>1.19</b>     |

## 5.5 Projected Profitability

| <b><u>PROJECTED PROFITABILITY STATEMENT</u></b> |                 |                 |                 |                 | (in Lacs)       |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>PARTICULARS</b>                              | <b>1st year</b> | <b>2nd year</b> | <b>3rd year</b> | <b>4th year</b> | <b>5th year</b> |
| Capacity Utilisation %                          | <b>60%</b>      | <b>65%</b>      | <b>70%</b>      | <b>75%</b>      | <b>80%</b>      |
| <b><u>SALES</u></b>                             |                 |                 |                 |                 |                 |
| <b>Gross Sale</b>                               |                 |                 |                 |                 |                 |
| Paneer  | 84.38           | 98.10           | 110.95          | 124.83          | 139.83          |
| <b>Total</b>                                    | <b>84.38</b>    | <b>98.10</b>    | <b>110.95</b>   | <b>124.83</b>   | <b>139.83</b>   |
| <b><u>COST OF SALES</u></b>                     |                 |                 |                 |                 |                 |
| Raw Material Consumed                           | 56.16           | 63.88           | 72.24           | 81.27           | 91.03           |
| Electricity Expenses                            | 4.32            | 4.75            | 5.23            | 5.75            | 6.32            |
| Depreciation                                    | 1.98            | 1.68            | 1.44            | 1.22            | 1.04            |
| Wages & labour                                  | 9.30            | 10.23           | 11.25           | 12.38           | 13.62           |
| Repair & maintenance                            | 1.69            | 2.45            | 2.77            | 3.12            | 3.50            |
| <b>Cost of Production</b>                       | <b>73.44</b>    | <b>83.00</b>    | <b>92.93</b>    | <b>103.74</b>   | <b>115.51</b>   |
| <b>Add: Opening Stock /WIP</b>                  | -               | 1.71            | 1.94            | 2.17            | 2.42            |
| <b>Less: Closing Stock /WIP</b>                 | 1.71            | 1.94            | 2.17            | 2.42            | 2.70            |
| Cost of Sales                                   | 71.73           | 82.78           | 92.70           | 103.49          | 115.23          |
| <b>GROSS PROFIT</b>                             | <b>12.65</b>    | <b>15.33</b>    | <b>18.25</b>    | <b>21.34</b>    | <b>24.60</b>    |
|   | <b>15.00%</b>   | <b>15.62%</b>   | <b>16.45%</b>   | <b>17.10%</b>   | <b>17.59%</b>   |
| Salary to Staff                                 | 5.10            | 5.61            | 6.17            | 6.79            | 7.47            |
| Interest on Term Loan                           | 1.00            | 0.88            | 0.63            | 0.38            | 0.13            |

|                             |              |              |              |              |              |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|
| Interest on working Capital | 0.60         | 0.60         | 0.60         | 0.60         | 0.60         |
| Rent                        | 1.80         | 1.98         | 2.18         | 2.40         | 2.64         |
| Selling & Adm exp           | 2.11         | 2.94         | 3.33         | 3.75         | 4.19         |
| <b>TOTAL</b>                | <b>10.60</b> | <b>12.01</b> | <b>12.91</b> | <b>13.91</b> | <b>15.03</b> |
| NET PROFIT                  | 2.05         | 3.32         | 5.34         | 7.43         | 9.57         |
|                             | <b>2.43%</b> | <b>3.38%</b> | <b>4.82%</b> | <b>5.95%</b> | <b>6.84%</b> |
| Taxation                    | -            | -            | 0.02         | 0.12         | 0.23         |
| PROFIT (After Tax)          | 2.05         | 3.32         | 5.33         | 7.31         | 9.34         |

## 5.6 Production and Yield

| <b><u>COMPUTATION OF PRODUCTION OF PANEER</u></b> |                |                       |
|---|----------------|-----------------------|
| <b>Items to be Manufactured</b>                   |                |                       |
| Paneer  |                |                       |
| Machine Production capacity per Hour              | 25.00          | kg                    |
| Working hours in a day                            | 8              |                       |
| Production Per Day                                | 200.00         | kg                    |
| No of Working Days in Month                       | 25             |                       |
| No of Working Days in a Year                      | 300            |                       |
| Machine capacity per annum                        | 60,000         | kg                    |
| <b>Production per annum</b>                       | <b>120,000</b> | <b>pack of 500 gm</b> |

| <b>Production of Paneer</b> |                 |                       |
|-----------------------------|-----------------|-----------------------|
| <b>Production</b>           | <b>Capacity</b> | <b>pack of 500 gm</b> |
| 1st year                    | 60%             | 72,000.00             |
| 2nd year                    | 65%             | 78,000.00             |
| 3rd year                    | 70%             | 84,000.00             |
| 4th year                    | 75%             | 90,000.00             |
| 5th year                    | 80%             | 96,000.00             |

| <b>Raw Material Cost</b> |                             |                        |                             |
|--------------------------|-----------------------------|------------------------|-----------------------------|
| <b>Year</b>              | <b>Capacity Utilization</b> | <b>Rate (per pack)</b> | <b>Amount (Rs. in lacs)</b> |
| 1st year                 | 60%                         | 78.00                  | 56.16                       |
| 2nd year                 | 65%                         | 81.90                  | 63.88                       |
| 3rd year                 | 70%                         | 86.00                  | 72.24                       |
| 4th year                 | 75%                         | 90.30                  | 81.27                       |
| 5th year                 | 80%                         | 94.82                  | 91.03                       |

## **5.7 Sales Revenue**

| <b><u>COMPUTATION OF SALE</u></b> |                  |                  |                  |                  |                  |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Particulars</b>                | <b>1st year</b>  | <b>2nd year</b>  | <b>3rd year</b>  | <b>4th year</b>  | <b>5th year</b>  |
| Op Stock                          | -                | 1,680.00         | 1,820.00         | 1,960.00         | 2,100.00         |
| Production                        | 72,000.00        | 78,000.00        | 84,000.00        | 90,000.00        | 96,000.00        |
| Less : Closing Stock              | 1,680.00         | 1,820.00         | 1,960.00         | 2,100.00         | 2,240.00         |
| <b>Net Sale</b>                   | <b>70,320.00</b> | <b>77,860.00</b> | <b>83,860.00</b> | <b>89,860.00</b> | <b>95,860.00</b> |
| Avg sale price per pack           | 120.00           | 126.00           | 132.30           | 138.92           | 145.87           |
| <b>Sales (in Lacs)</b>            | <b>84.38</b>     | <b>98.10</b>     | <b>110.95</b>    | <b>124.83</b>    | <b>139.83</b>    |

## 5.8 Working Capital Assessment

| <b>COMPUTATION OF CLOSING STOCK &amp; WORKING CAPITAL</b> |                 |                 |                 |                 | (in Lacs)       |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>PARTICULARS</b>  | <b>1st year</b> | <b>2nd year</b> | <b>3rd year</b> | <b>4th year</b> | <b>5th year</b> |
| <b><u>Finished Goods</u></b>                              |                 |                 |                 |                 |                 |
|   | 1.71            | 1.94            | 2.17            | 2.42            | 2.70            |
| <b><u>Raw Material</u></b>                                |                 |                 |                 |                 |                 |
|   | 0.56            | 0.64            | 0.72            | 0.81            | 0.91            |
| <b>Closing Stock</b>                                      | <b>2.28</b>     | <b>2.58</b>     | <b>2.89</b>     | <b>3.23</b>     | <b>3.61</b>     |

| <b>COMPUTATION OF WORKING CAPITAL REQUIREMENT</b> |               |                   |             |                     |
|---|---------------|-------------------|-------------|---------------------|
| <b>TRADITIONAL METHOD</b>                         |               |                   |             | (in Lacs)           |
| <b>Particulars</b>                                | <b>Amount</b> | <b>Own Margin</b> |             | <b>Bank Finance</b> |
| Finished Goods & Raw Material                     | 2.28          |                   |             |                     |
| Less: Creditors                                   | 1.31          |                   |             |                     |
| <b>Paid stock</b>                                 | <b>0.96</b>   | <b>25%</b>        | <b>0.24</b> | <b>75% 0.72</b>     |
| <b>Sundry Debtors</b>                             | <b>7.03</b>   | <b>25%</b>        | <b>1.76</b> | <b>75% 5.27</b>     |
|   | <b>8.00</b>   |                   | <b>2.00</b> | <b>6.00</b>         |
| <b>WORKING CAPITAL LIMIT DEMAND (from Bank)</b>   |               |                   |             |                     |
|   |               |                   |             | <b>6.00</b>         |

## 5.9 Power, Salary & Wages Calculation

| <b>Utility Charges (per month)</b> |              |                    |
|------------------------------------|--------------|--------------------|
| <b>Particulars</b>                 | <b>value</b> | <b>Description</b> |
| Power connection required          | 30           | KWH                |
| consumption per day                | 240          | units              |
| Consumption per month              | 6,000        | units              |
| Rate per Unit                      | 10           | Rs.                |
| power Bill per month               | 60,000       | Rs.                |

| <b><u>BREAK UP OF LABOUR CHARGES</u></b> |                                    |                            |                         |
|--|------------------------------------|----------------------------|-------------------------|
| <b>Particulars</b>                       | <b>Wages<br/>Rs. per<br/>Month</b> | <b>No of<br/>Employees</b> | <b>Total<br/>Salary</b> |
| Supervisor                               | 15,000                             | 1                          | 15,000                  |
| Plant operator                           | 12,500                             | 1                          | 12,500                  |
| Skilled (in thousand rupees)             | 10,000                             | 2                          | 20,000                  |
| Unskilled (in thousand rupees)           | 7,500                              | 4                          | 30,000                  |
| <b>Total salary per month</b>            |                                    |                            | <b>77,500</b>           |
| <b>Total annual labour charges</b>       | <b>(in lacs)</b>                   |                            | <b>9.30</b>             |

| <b><u>BREAK UP OF STAFF SALARY</u></b> |                                     |                            |                         |
|--|-------------------------------------|----------------------------|-------------------------|
| <b>Particulars</b>                     | <b>Salary<br/>Rs. per<br/>Month</b> | <b>No of<br/>Employees</b> | <b>Total<br/>Salary</b> |
| Accountant                             | 12,500                              | 1                          | 12,500                  |
| Administrative Staffs                  | 7,500                               | 4                          | 30,000                  |
| <b>Total salary per month</b>          |                                     |                            | <b>42,500</b>           |
| <b>Total annual Staff charges</b>      | <b>(in lacs)</b>                    |                            | <b>5.10</b>             |

## 5.10 Financial Ratio Analysis

| <b>FINANCIAL INDICATORS</b> |                 |                 |                 |                 |                 |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>PARTICULARS</b>          | <b>1st year</b> | <b>2nd year</b> | <b>3rd year</b> | <b>4th year</b> | <b>5th year</b> |
| TURNOVER                    | 84.38           | 98.10           | 110.95          | 124.83          | 139.83          |
| GROSS PROFIT                | 12.65           | 15.33           | 18.25           | 21.34           | 24.60           |
| <b>G.P. RATIO</b>           | <b>15.00%</b>   | <b>15.62%</b>   | <b>16.45%</b>   | <b>17.10%</b>   | <b>17.59%</b>   |
| NET PROFIT                  | 2.05            | 3.32            | 5.34            | 7.43            | 9.57            |
| <b>N.P. RATIO</b>           | <b>2.43%</b>    | <b>3.38%</b>    | <b>4.82%</b>    | <b>5.95%</b>    | <b>6.84%</b>    |
| CURRENT ASSETS              | 10.96           | 11.89           | 13.60           | 15.09           | 16.45           |
| CURRENT LIABILITIES         | 7.31            | 7.49            | 7.69            | 7.90            | 8.12            |
| <b>CURRENT RATIO</b>        | <b>1.50</b>     | <b>1.59</b>     | <b>1.77</b>     | <b>1.91</b>     | <b>2.03</b>     |
| TERM LOAN                   | 9.00            | 6.75            | 4.50            | 2.25            | -               |
| TOTAL NET WORTH             | 6.18            | 7.49            | 9.82            | 12.13           | 14.47           |
| <b>DEBT/EQUITY</b>          | <b>1.46</b>     | <b>0.90</b>     | <b>0.46</b>     | <b>0.19</b>     | <b>-</b>        |
| TOTAL NET WORTH             | 6.18            | 7.49            | 9.82            | 12.13           | 14.47           |
| TOTAL OUTSIDE LIABILITIES   | 16.31           | 14.24           | 12.19           | 10.15           | 8.12            |
| <b>TOL/TNW</b>              | <b>2.64</b>     | <b>1.90</b>     | <b>1.24</b>     | <b>0.84</b>     | <b>0.56</b>     |
| PBDIT                       | 5.62            | 6.48            | 8.01            | 9.64            | 11.34           |
| INTEREST                    | 1.60            | 1.48            | 1.23            | 0.98            | 0.73            |



|                                |             |             |             |             |              |
|--------------------------------|-------------|-------------|-------------|-------------|--------------|
| <b>INTEREST COVERAGE RATIO</b> | <b>3.52</b> | <b>4.39</b> | <b>6.51</b> | <b>9.82</b> | <b>15.45</b> |
| WDV                            | 11.53       | 9.84        | 8.41        | 7.18        | 6.14         |
| TERM LOAN                      | 9.00        | 6.75        | 4.50        | 2.25        | -            |
| <b>FACR</b>                    | <b>1.28</b> | <b>1.46</b> | <b>1.87</b> | <b>3.19</b> | <b>-</b>     |

### 5.11 DSCR

| <u>CALCULATION OF D.S.C. R</u>     |             |             |             |             |              |
|------------------------------------|-------------|-------------|-------------|-------------|--------------|
| PARTICULARS                        | 1st year    | 2nd year    | 3rd year    | 4th year    | 5th year     |
| CASH ACCRUALS                      | 4.03        | 5.00        | 6.76        | 8.53        | 10.38        |
| Interest on Term Loan              | 1.00        | 0.88        | 0.63        | 0.38        | 0.13         |
| <b>Total</b>                       | <b>5.02</b> | <b>5.88</b> | <b>7.39</b> | <b>8.92</b> | <b>10.52</b> |
| <u>REPAYMENT</u>                   |             |             |             |             |              |
| Instalment of Term Loan            | 1.13        | 2.25        | 2.25        | 2.25        | 2.25         |
| Interest on Term Loan              | 1.00        | 0.88        | 0.63        | 0.38        | 0.13         |
| <b>Total</b>                       | <b>2.12</b> | <b>3.13</b> | <b>2.88</b> | <b>2.63</b> | <b>2.38</b>  |
| <b>DEBT SERVICE COVERAGE RATIO</b> | <b>2.37</b> | <b>1.88</b> | <b>2.57</b> | <b>3.39</b> | <b>4.41</b>  |
| <b>AVERAGE D.S.C.R.</b>            | <b>2.87</b> |             |             |             |              |

### 5.12 Depreciation

| <b>COMPUTATION OF DEPRECIATION</b> |                              |                  | (in Lacs)    |
|------------------------------------|------------------------------|------------------|--------------|
| <b>Description</b>                 | <b>Plant &amp; Machinery</b> | <b>Furniture</b> | <b>TOTAL</b> |
| Rate of Depreciation               | <b>15.00%</b>                | <b>10.00%</b>    |              |
| <b>Opening Balance</b>             | -                            | -                | -            |
| Addition                           | 12.50                        | 1.00             | 13.50        |
| Total                              | 12.50                        | 1.00             | 13.50        |
| Less: Depreciation                 | 1.88                         | 0.10             | 1.98         |
| <b>WDV at end of Year</b>          | <b>10.63</b>                 | <b>0.90</b>      | <b>11.53</b> |
| Additions During the Year          | -                            | -                | -            |
| Total                              | 10.63                        | 0.90             | 11.53        |
| Less: Depreciation                 | 1.59                         | 0.09             | 1.68         |
| <b>WDV at end of Year</b>          | <b>9.03</b>                  | <b>0.81</b>      | <b>9.84</b>  |
| Additions During the Year          | -                            | -                | -            |
| Total                              | 9.03                         | 0.81             | 9.84         |
| Less: Depreciation                 | 1.35                         | 0.08             | 1.44         |
| <b>WDV at end of Year</b>          | <b>7.68</b>                  | <b>0.73</b>      | <b>8.41</b>  |
| Additions During the Year          | -                            | -                | -            |
| Total                              | 7.68                         | 0.73             | 8.41         |
| Less : Depreciation                | 1.15                         | 0.07             | 1.22         |
| <b>WDV at end of Year</b>          | <b>6.53</b>                  | <b>0.66</b>      | <b>7.18</b>  |
| Additions During the Year          | -                            | -                | -            |
| Total                              | 6.53                         | 0.66             | 7.18         |
| Less: Depreciation                 | 0.98                         | 0.07             | 1.04         |
| <b>WDV at end of Year</b>          | <b>5.55</b>                  | <b>0.59</b>      | <b>6.14</b>  |
| Additions During the Year          | -                            | -                | -            |

|                           |             |             |             |
|---------------------------|-------------|-------------|-------------|
| Total                     | 5.55        | 0.59        | 6.14        |
| Less: Depreciation        | 0.83        | 0.06        | 0.89        |
| <b>WDV at end of Year</b> | <b>4.71</b> | <b>0.53</b> | <b>5.25</b> |
| Less: Depreciation        | 0.71        | 0.05        | 0.76        |
| <b>WDV at end of Year</b> | <b>4.01</b> | <b>0.48</b> | <b>4.49</b> |
| Less: Depreciation        | 0.60        | 0.05        | 0.65        |
| <b>WDV at end of Year</b> | <b>3.41</b> | <b>0.43</b> | <b>3.84</b> |

### 5.13 Repayment schedule

| REPAYMENT SCHEDULE OF TERM LOAN |                 |        |          |       |          |           |                 |
|---------------------------------|-----------------|--------|----------|-------|----------|-----------|-----------------|
|                                 |                 |        |          |       | Interest |           | 11.00%          |
| Year                            | Particulars     | Amount | Addition | Total | Interest | Repayment | Closing Balance |
| ist                             | Opening Balance |        |          |       |          |           |                 |
|                                 | 1st month       | -      | 10.13    | 10.13 | -        | -         | 10.13           |
|                                 | 2nd month       | 10.13  | -        | 10.13 | 0.09     | -         | 10.13           |
|                                 | 3rd month       | 10.13  | -        | 10.13 | 0.09     | -         | 10.13           |
|                                 | 4th month       | 10.13  | -        | 10.13 | 0.09     |           | 10.13           |
|                                 | 5th month       | 10.13  | -        | 10.13 | 0.09     |           | 10.13           |
|                                 | 6th month       | 10.13  | -        | 10.13 | 0.09     |           | 10.13           |
|                                 | 7th month       | 10.13  | -        | 10.13 | 0.09     | 0.19      | 9.94            |
|                                 | 8th month       | 9.94   | -        | 9.94  | 0.09     | 0.19      | 9.75            |
|                                 | 9th month       | 9.75   | -        | 9.75  | 0.09     | 0.19      | 9.56            |
|                                 | 10th month      | 9.56   | -        | 9.56  | 0.09     | 0.19      | 9.38            |

|            |                 |      |   |      |             |             |      |
|------------|-----------------|------|---|------|-------------|-------------|------|
|            | 11th month      | 9.38 | - | 9.38 | 0.09        | 0.19        | 9.19 |
|            | 12th month      | 9.19 | - | 9.19 | 0.08        | 0.19        | 9.00 |
|            |                 |      |   |      | 1.00        | 1.13        |      |
| <b>2nd</b> | Opening Balance |      |   |      |             |             |      |
|            | 1st month       | 9.00 | - | 9.00 | 0.08        | 0.19        | 8.81 |
|            | 2nd month       | 8.81 | - | 8.81 | 0.08        | 0.19        | 8.63 |
|            | 3rd month       | 8.63 | - | 8.63 | 0.08        | 0.19        | 8.44 |
|            | 4th month       | 8.44 | - | 8.44 | 0.08        | 0.19        | 8.25 |
|            | 5th month       | 8.25 | - | 8.25 | 0.08        | 0.19        | 8.06 |
|            | 6th month       | 8.06 | - | 8.06 | 0.07        | 0.19        | 7.88 |
|            | 7th month       | 7.88 | - | 7.88 | 0.07        | 0.19        | 7.69 |
|            | 8th month       | 7.69 | - | 7.69 | 0.07        | 0.19        | 7.50 |
|            | 9th month       | 7.50 | - | 7.50 | 0.07        | 0.19        | 7.31 |
|            | 10th month      | 7.31 | - | 7.31 | 0.07        | 0.19        | 7.13 |
|            | 11th month      | 7.13 | - | 7.13 | 0.07        | 0.19        | 6.94 |
|            | 12th month      | 6.94 | - | 6.94 | 0.06        | 0.19        | 6.75 |
|            |                 |      |   |      | <b>0.88</b> | <b>2.25</b> |      |
| <b>3rd</b> | Opening Balance |      |   |      |             |             |      |
|            | 1st month       | 6.75 | - | 6.75 | 0.06        | 0.19        | 6.56 |
|            | 2nd month       | 6.56 | - | 6.56 | 0.06        | 0.19        | 6.38 |
|            | 3rd month       | 6.38 | - | 6.38 | 0.06        | 0.19        | 6.19 |
|            | 4th month       | 6.19 | - | 6.19 | 0.06        | 0.19        | 6.00 |

|            |                 |      |   |      |             |             |      |
|------------|-----------------|------|---|------|-------------|-------------|------|
|            | 5th month       | 6.00 | - | 6.00 | 0.06        | 0.19        | 5.81 |
|            | 6th month       | 5.81 | - | 5.81 | 0.05        | 0.19        | 5.63 |
|            | 7th month       | 5.63 | - | 5.63 | 0.05        | 0.19        | 5.44 |
|            | 8th month       | 5.44 | - | 5.44 | 0.05        | 0.19        | 5.25 |
|            | 9th month       | 5.25 | - | 5.25 | 0.05        | 0.19        | 5.06 |
|            | 10th month      | 5.06 | - | 5.06 | 0.05        | 0.19        | 4.88 |
|            | 11th month      | 4.88 | - | 4.88 | 0.04        | 0.19        | 4.69 |
|            | 12th month      | 4.69 | - | 4.69 | 0.04        | 0.19        | 4.50 |
|            |                 |      |   |      | <b>0.63</b> | <b>2.25</b> |      |
| <b>4th</b> | Opening Balance |      |   |      |             |             |      |
|            | 1st month       | 4.50 | - | 4.50 | 0.04        | 0.19        | 4.31 |
|            | 2nd month       | 4.31 | - | 4.31 | 0.04        | 0.19        | 4.13 |
|            | 3rd month       | 4.13 | - | 4.13 | 0.04        | 0.19        | 3.94 |
|            | 4th month       | 3.94 | - | 3.94 | 0.04        | 0.19        | 3.75 |
|            | 5th month       | 3.75 | - | 3.75 | 0.03        | 0.19        | 3.56 |
|            | 6th month       | 3.56 | - | 3.56 | 0.03        | 0.19        | 3.38 |
|            | 7th month       | 3.38 | - | 3.38 | 0.03        | 0.19        | 3.19 |
|            | 8th month       | 3.19 | - | 3.19 | 0.03        | 0.19        | 3.00 |
|            | 9th month       | 3.00 | - | 3.00 | 0.03        | 0.19        | 2.81 |
|            | 10th month      | 2.81 | - | 2.81 | 0.03        | 0.19        | 2.63 |
|            | 11th month      | 2.63 | - | 2.63 | 0.02        | 0.19        | 2.44 |
|            | 12th month      | 2.44 | - | 2.44 | 0.02        | 0.19        | 2.25 |
|            |                 |      |   |      | <b>0.38</b> | <b>2.25</b> |      |

|                   |                 |           |   |      |             |             |      |
|-------------------|-----------------|-----------|---|------|-------------|-------------|------|
| <b>5th</b>        | Opening Balance |           |   |      |             |             |      |
|                   | 1st month       | 2.25      | - | 2.25 | 0.02        | 0.19        | 2.06 |
|                   | 2nd month       | 2.06      | - | 2.06 | 0.02        | 0.19        | 1.88 |
|                   | 3rd month       | 1.88      | - | 1.88 | 0.02        | 0.19        | 1.69 |
|                   | 4th month       | 1.69      | - | 1.69 | 0.02        | 0.19        | 1.50 |
|                   | 5th month       | 1.50      | - | 1.50 | 0.01        | 0.19        | 1.31 |
|                   | 6th month       | 1.31      | - | 1.31 | 0.01        | 0.19        | 1.13 |
|                   | 7th month       | 1.13      | - | 1.13 | 0.01        | 0.19        | 0.94 |
|                   | 8th month       | 0.94      | - | 0.94 | 0.01        | 0.19        | 0.75 |
|                   | 9th month       | 0.75      | - | 0.75 | 0.01        | 0.19        | 0.56 |
|                   | 10th month      | 0.56      | - | 0.56 | 0.01        | 0.19        | 0.38 |
|                   | 11th month      | 0.38      | - | 0.38 | 0.00        | 0.19        | 0.19 |
|                   | 12th month      | 0.19      | - | 0.19 | 0.00        | 0.19        | -    |
|                   |                 |           |   |      | <b>0.13</b> | <b>2.25</b> |      |
| DOOR TO DOOR      |                 | 60 MONTHS |   |      |             |             |      |
| MORATORIUM PERIOD |                 | 6 MONTHS  |   |      |             |             |      |
| REPAYMENT PERIOD  |                 | 54 MONTHS |   |      |             |             |      |

### 5.14 Break Even Point Analysis

| <b>BREAK EVEN POINT ANALYSIS</b>    |          |           |            |           |          |
|-------------------------------------|----------|-----------|------------|-----------|----------|
| <b>Year</b>                         | <b>I</b> | <b>II</b> | <b>III</b> | <b>IV</b> | <b>V</b> |
| <b>Net Sales &amp; Other Income</b> | 84.38    | 98.10     | 110.95     | 124.83    | 139.83   |

|   |              |              |               |               |               |
|---|--------------|--------------|---------------|---------------|---------------|
| Less: Op. WIP Goods                           | -            | 1.71         | 1.94          | 2.17          | 2.42          |
| Add: Cl. WIP Goods                            | 1.71         | 1.94         | 2.17          | 2.42          | 2.70          |
| <b>Total Sales</b>                            | <b>86.10</b> | <b>98.33</b> | <b>111.18</b> | <b>125.09</b> | <b>140.11</b> |
| <b>Variable &amp; Semi Variable Exp.</b>      |              |              |               |               |               |
| Raw Material Consumed                         | 56.16        | 63.88        | 72.24         | 81.27         | 91.03         |
| Electricity Exp/Coal Consumption at 85%       | 3.67         | 4.04         | 4.44          | 4.89          | 5.38          |
| Wages & Salary at 60%                         | 8.64         | 9.50         | 10.45         | 11.50         | 12.65         |
| Selling & administrative Expenses 80%         | 1.69         | 2.35         | 2.66          | 3.00          | 3.36          |
| Interest on working Capital                   | 0.6          | 0.6          | 0.6           | 0.6           | 0.6           |
| Repair & maintenance                          | 1.69         | 2.45         | 2.77          | 3.12          | 3.50          |
| <b>Total Variable &amp; Semi Variable Exp</b> | <b>72.45</b> | <b>82.83</b> | <b>93.17</b>  | <b>104.37</b> | <b>116.50</b> |
| <b>Contribution</b>                           | <b>13.65</b> | <b>15.49</b> | <b>18.00</b>  | <b>20.71</b>  | <b>23.60</b>  |
| <b>Fixed &amp; Semi Fixed Expenses</b>        |              |              |               |               |               |
| Electricity Exp/Coal Consumption at 15%       | 0.65         | 0.71         | 0.78          | 0.86          | 0.95          |
| Wages & Salary at 40%                         | 5.76         | 6.34         | 6.97          | 7.67          | 8.43          |
| Interest on Term Loan                         | 1.00         | 0.88         | 0.63          | 0.38          | 0.13          |
| Depreciation                                  | 1.98         | 1.68         | 1.44          | 1.22          | 1.04          |
| Selling & administrative Expenses 20%         | 0.42         | 0.59         | 0.67          | 0.75          | 0.84          |
| Rent  | 1.80         | 1.98         | 2.18          | 2.40          | 2.64          |
| <b>Total Fixed Expenses</b>                   | <b>11.60</b> | <b>12.18</b> | <b>12.66</b>  | <b>13.28</b>  | <b>14.03</b>  |
| <b>Capacity Utilization</b>                   | <b>60%</b>   | <b>65%</b>   | <b>70%</b>    | <b>75%</b>    | <b>80%</b>    |
| <b>OPERATING PROFIT</b>                       | <b>2.05</b>  | <b>3.32</b>  | <b>5.34</b>   | <b>7.43</b>   | <b>9.57</b>   |
| <b>BREAK EVEN POINT</b>                       | <b>51%</b>   | <b>51%</b>   | <b>49%</b>    | <b>48%</b>    | <b>48%</b>    |
| <b>BREAK EVEN SALES</b>                       | <b>73.17</b> | <b>77.28</b> | <b>78.19</b>  | <b>80.20</b>  | <b>83.32</b>  |

## **6. LICENSE & APPROVALS**

- Obtain the GST registration.
- Additionally, obtain the Udyog Aadhar registration Number.
- Fire/pollution license as required.
- FSSAI License
- Factory License
- Choice of a Brand Name of the product and secure the name with Trademark if required.

## **7. ASSUMPTIONS**

1. Production Capacity of Paneer is 200 kg per day. First year, Capacity has been taken @ 60%.
2. Working shift of 8 hours per day has been considered.
3. Raw Material stock is for 3 days and Finished goods Closing Stock has been taken for 7 days.
4. Credit period to Sundry Debtors has been given for 25 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 30 KW.
10. Increase in sales and raw material costing has been taken @ 5% on a yearly basis.



## **Limitations of the Model DPR and Guidelines for Entrepreneurs**

### **Limitations of the Model DPR**

- i. This model DPR has provided only the basic standard components and methodology to be adopted by an entrepreneur while submitting a proposal under the Formalization of Micro Food Processing Enterprises Scheme of MoFPI.
- ii. This is a model DPR made to provide general methodological structure not for specific entrepreneur/crops/location. Therefore, information on the entrepreneur, forms and structure (proprietorship/partnership/cooperative/ FPC/joint stock company) of his business, details of proposed DPR, project location, raw material base/contract sourcing, entrepreneurs own SWOT analysis, detailed market research, rationale of the project for specific location, community advantage/benefit from the project, employment generation and many more detailed aspects not included.
- iii. The present DPR is based on certain assumptions on cost, prices, interest, capacity utilization, output recovery rate and so on. However, these assumptions in reality may vary across places, markets and situations; thus the resultant calculations will also change accordingly.