

## **PROJECT PROFILE FOR COIR FIBRE EXTRACTION UNIT**

|  |          |   |
|--|----------|---|
| <b>PRODUCT</b>                         | <b>:</b> | <b>COIR FIBRE</b>                                     |
| <b>PRODUCTION CAPACITY (P.A)</b>       |          |   |
| <b>(100% CAPACITY)</b>                 | <b>:</b> | <b>750 TONS</b>                                       |
| <b>VALUE</b>                           | <b>:</b> | <b>RS.210.00 LAKHS</b>                                |
| <b>MONTH &amp; YEAR OF PREPARATION</b> | <b>:</b> | <b>JUNE 2018</b>                                      |
| <b>PREPARED BY</b>                     | <b>:</b> | <b>COIR BOARD MINISTRY OF MSME,<br/>GOVT OF INDIA</b> |

- **INTRODUCTION**

Coir product by virtue of its eco-friendly and biodegradable qualities are increasingly getting world wide acceptance. The basic raw material of the industry, i.e., **“Coconut husk”** is abundantly available at negligible cost in major coconut growing states of India. It is estimated that as of now only 40%-45% of the raw material availability i.e., the coconut husk is put into coir industrial use. Hence, there is a vast unused potentiality available in coconut growing states of India for extraction of coir fiber and its further processing.

- **PROCESS OF MANUFACTURE**

In the common method of mechanical extraction of coir fibre from the coconut husk , the husks sprinkled with water and kept for a few hours are first processed in a buster (disintegrator) by which about 60% disintegration of fibre takes place. The husk fed from the chute provided at the top of the machine are smashed against a wall or wooden plank fixed. Followed to this, the disintegrated husks are fed to a beater to complete the extraction of fibre. The fibre thus extracted is cleaned using a revolving screener/sifter. On an average about 25000 husk could be processed per shift of 8 hours in this method.

- **MARKET**

Coir fibre extracted from coconut husk has extensive use in almost all coir activities and it is the basic raw material for manufacturing of different varieties of Coir yarn. The economic and pollution control issues have almost arrested the traditional way of coir retting and fibre extractions. Hence, now a day's industry purely depends upon the fibre produced by mechanical device from Green/Dry coconut husk. In this context, fibres extracted under this method have good demands and market in order to carry out all coir based activities.

- **BASIS AND PRESUMPTIONS**

- The Project Profile is based on 8 working hours in a day and 25 days in a month and the Break Even efficiency has been calculated on 75%, 80%, 85% and 90% capacity utilization.
- The rate of interest both for fixed asset and working capital have been taken as 13.5% p.a.
- Interest for margin money is calculated 1<sup>st</sup> half year (considering the time taken for margin money to be placed as FDR)
- The Margin money is deducted from the 4<sup>th</sup> year beginning.

- **TECHNICAL ASPECTS**

|   |   |                                |
|---|---|--------------------------------|
| Installed Production capacity per shift | : | 2.5 tons of coir fiber per day |
| Working days p.a                        | : | 300 days                       |
| Husk requirement of per ton of fiber    | : | 12000 husk per ton             |
| Cost of husk                            | : | Rs.1.80 per husk               |
| Average cost of raw material            | : | Rs.21600 per ton of fiber      |

#### Capacity Utilization

|                             |   |                                |
|-----------------------------|---|--------------------------------|
| -First year                 | : | 75%                            |
| -Second year                | : | 80%                            |
| -Third year                 | : | 85%                            |
| -Fourth year                | : | 90%                            |
| -Fifth year                 | : | 100%                           |
| Interest on term loan       | : | 13.5%                          |
| Interest on Working capital | : | 13.5%                          |
| Average Sales realization   | : | Rs.28000 per ton of coir fiber |
| Lease rental Cost           | : | Rs.3000                        |
| Depreciation of machinery   | : | 10%                            |
| Depreciation of Building    | : | 5%                             |

#### Manpower requirement

|                         |   |       |
|-------------------------|---|-------|
| Skilled workers         | : | 8     |
| Semi-Skilled workers    | : | 11    |
| Admin & sales personnel | : | 2     |
| Total HP required       | : | 75 HP |

### • FINANCIAL ASPECTS

#### i) Cost of Project

|                                   |   | Amount       |
|-----------------------------------|---|--------------|
| • Land                            | : | Lease/owned  |
| • Work shed (about 1200 sq. Feet) | : | Rs. 400000/- |

|                          |          |                      |
|--------------------------|----------|----------------------|
| • Machinery & Equipments | :        | Rs.1568000/-         |
| • Working Capital        | :        | Rs.532000/-          |
|                          |          | -----                |
| <b>Total</b>             | <b>:</b> | <b>Rs. 2500000/-</b> |
|                          |          | -----                |

| Sl. No       | Description of machines & equipments    | Qty | Amount (Rs) |
|--------------|---|-----|-------------|
| 1            | Disintegrator 10 HP                     | 1   | 230000.00   |
| 2            | Decorticator 30 HP each                 | 2   | 682000.00   |
| 3            | Screener 2HP                            | 1   | 70000.00    |
| 4            | Bailing Press 5 HP                      | 1   | 160000.00   |
| 5            | Conveyors (as per the requirement) 4 HP |     | 364000.00   |
| 6            | Well & Pump set 2 HP                    | 1   | 90000.00    |
| <b>Total</b> |   |     | 1568000.00  |

## ii) Means of Finance

|                     |     |          |                     |
|---------------------|-----|----------|---------------------|
| • Promoters Capital | 5%  | :        | Rs. 125000/-        |
| • Bank Term loan    | 95% | :        | Rs.1870000/-        |
| • WC Loan from Bank | 95% | :        | Rs. 505000/-        |
|                     |     |          | -----               |
| <b>Total</b>        |     | <b>:</b> | <b>Rs.2500000/-</b> |
|                     |     |          | -----               |

### DETAILS OF THE PROFITABILITY OF THE PROJECT

| Years                                     |           | 1             | 2             | 3             | 4             | 5             |
|---|-----------|---------------|---------------|---------------|---------------|---------------|
| Installed Production capacity/machine/day | Tons      | 2.5           | 2.5           | 2.5           | 2.5           | 2.5           |
| Working days per annum                    |           | 300           | 300           | 300           | 300           | 300           |
| Annual Production capacity                |           | 750           | 750           | 750           | 750           | 750           |
| Capacity utilization                      |           | 75%           | 80%           | 85%           | 90%           | 100%          |
| Annual production quantity                | Tons      | 563           | 600           | 638           | 675           | 750           |
| <b>Annual Sales Realization</b>           | Rs. 28000 | 157.50        | 168.00        | 178.50        | 189.00        | 210.00        |
| Cost of Production                        |           |               |               |               |               |               |
| Raw material requirement                  | Tons      |               |               |               |               |               |
| Cost of raw material                      | Rs. 21600 | 121.50        | 129.60        | 137.70        | 145.80        | 162.00        |
| Power cost                                |           | 5.92          | 6.32          | 6.71          | 7.11          | 7.90          |
| Spares, Repairs & maintenance             | 2%        | 0.31          | 0.38          | 0.45          | 0.54          | 0.65          |
| Lease rent                                |           | 0.36          | 0.40          | 0.44          | 0.48          | 0.53          |
| Wages & salary                            |           | 14.04         | 14.74         | 16.22         | 17.84         | 19.62         |
| <b>Total</b>                              |           | <b>142.14</b> | <b>151.43</b> | <b>161.52</b> | <b>171.77</b> | <b>190.70</b> |
| <b>Gross Profit</b>                       |           | <b>15.36</b>  | <b>16.57</b>  | <b>16.98</b>  | <b>17.23</b>  | <b>19.30</b>  |
| Administrative & marketing Expense        | 2%        | 3.15          | 3.36          | 3.57          | 3.78          | 4.20          |
| Interest on Term loan                     |           | 2.10          | 2.24          | 1.87          | 0.65          | 0.28          |
| Interest on working capital loan          |           | 0.68          | 0.68          | 0.68          | 0.68          | 0.68          |
| Depreciation of machinery                 |           | 1.57          | 1.57          | 1.57          | 1.57          | 1.57          |
| Depreciation of building                  |           | 0.20          | 0.20          | 0.20          | 0.20          | 0.20          |
| <b>Total</b>                              |           | <b>7.70</b>   | <b>8.05</b>   | <b>7.89</b>   | <b>6.88</b>   | <b>6.93</b>   |
| <b>Net Surplus</b>                        |           | <b>7.66</b>   | <b>8.51</b>   | <b>9.09</b>   | <b>10.35</b>  | <b>12.37</b>  |

### ESTIMATION OF BREAK EVEN POINT

Rs in Lakhs

| Particulars                 | 1<br>75% | 2<br>80% | 3<br>85% | 4<br>90% | 5<br>100% |
|-----------------------------|----------|----------|----------|----------|-----------|
| Break-even point            | 68%      | 65%      | 59%      | 40%      | 31%       |
| Break even Production (TON) | 383      | 391      | 373      | 271      | 232       |

- DEBT SERVICE COVERAGE RATIO**

Rs in Lakhs

| Particulars           | 1    | 2    | 3    | 4    | 5    |
|-----------------------|------|------|------|------|------|
|                       | 75%  | 80%  | 85%  | 90%  | 100% |
| DSCR                  | 3.25 | 2.46 | 2.70 | 3.68 | 4.67 |
| Average DSCR          | 3.35 |      |      |      |      |
| DSCR weighted average | 3.21 |      |      |      |      |

- WORKING CAPITAL REQUIREMENTS**

Rs in Lakhs

| Particulars         | 1      | 2      | 3      | 4      | 5      |
|---------------------|--------|--------|--------|--------|--------|
|                     | 75%    | 80%    | 85%    | 90%    | 100%   |
| Variable Cost       | 142.14 | 151.43 | 161.52 | 171.77 | 190.70 |
| Fixed Cost          | 7.70   | 8.05   | 7.89   | 6.88   | 6.93   |
| Working capital Gap | 5.32   | 5.69   | 6.08   | 6.47   | 7.21   |