



AN ISO 9001 : 2015 CERTIFIED COMPANY

Detailed project report

Sample edition

Projections from FY 2027-28

Project report

# Coir Fibre

Installed capacity 2 MT per day

Sector Agro-fibre products

Total project cost ₹43.21 lakh

**Illustrative sample**  
Figures are representative

## Project at a glance

Coir Fibre  
2 MT per day

| Product                | Coir Fibre          | Sector                  | Agro-fibre products      |
|------------------------|---------------------|-------------------------|--------------------------|
| Installed capacity     | 2 MT per day        | Annual capacity         | 600 MT per year          |
| Selling price (ex-GST) | ₹22,100 per MT      | Working days            | 300 a year               |
| Manpower               | 6 people            | Plant and machinery     | ₹20.30 lakh              |
| Total project cost     | <b>₹43.21 lakh</b>  | Promoter's contribution | ₹10.80 lakh (25%)        |
| Term loan              | ₹32.41 lakh (75%)   | Cash credit limit       | ₹9.33 lakh               |
| Revenue, Year 3        | ₹92.82 lakh at 70%  | Net profit, Year 3      | ₹13.04 lakh              |
| Return on investment   | <b>30.1% a year</b> | Break-even, Year 3      | <b>38.4% of capacity</b> |
| Average DSCR           | <b>2.23</b>         | Payback period          | 2.9 years                |

This is an illustrative sample. Its figures are generated from industry-typical ratios to show the format and depth of an NPCS project report. They are not taken from any NPCS report or any real project, and should not be used for investment or lending decisions.

## Contents

|    |                                   |    |                                           |
|----|-----------------------------------|----|-------------------------------------------|
| 1  | Introduction                      | 12 | Projected profitability                   |
| 2  | Uses and applications             | 13 | Cash flow statement                       |
| 3  | Market potential                  | 14 | Projected balance sheet                   |
| 4  | Manufacturing process             | 15 | Depreciation                              |
| 5  | Raw materials                     | 16 | Term loan repayment                       |
| 6  | Plant and machinery               | 17 | Debt service coverage                     |
| 7  | Land, building and utilities      | 18 | Break-even analysis                       |
| 8  | Manpower                          | 19 | Financial ratios                          |
| 9  | Licences and approvals            | 20 | Key assumptions                           |
| 10 | Project cost and means of finance | 21 | Conclusion                                |
| 11 | Working capital                   | A  | Annexure: monthly loan repayment schedule |

## 1 Introduction

The project modelled here is a unit producing coir fibre in the agro-fibre products sector, sized at 2 MT per day. Working 300 days a year, the plant can turn out 600 MT per year at full capacity. The product's applications range from rubberised coir mattresses and cushioning to horticulture liners and growing media.

The sections that follow show how such a unit would be costed and financed, and how its profit, cash flow and loan repayment would look over the first five years. At 70% capacity utilisation in Year 3, the model unit earns revenue of ₹92.82 lakh and a net profit of ₹13.04 lakh.

## 2 Uses and applications

The product is bought for these main uses:

- Rubberised coir mattresses and cushioning
- Coir yarn, rope and twine
- Brushes, brooms and doormats
- Geotextiles and erosion control mats
- Horticulture liners and growing media

## 3 Market potential

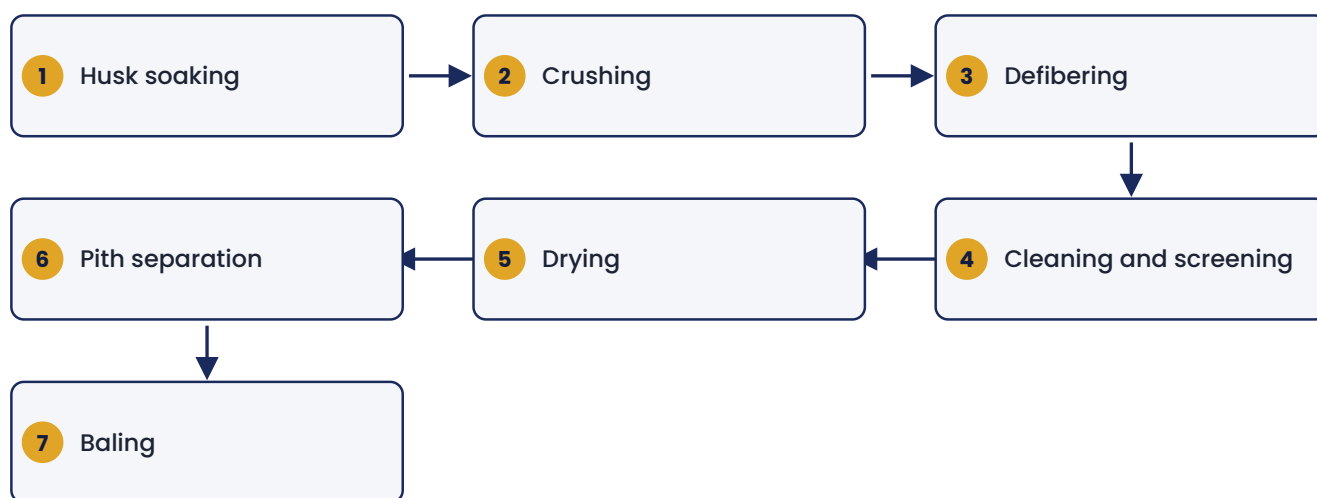
Brown coir fibre is bought by rubberised coir mattress makers, coir yarn and rope spinners, brush and mat units and fibre exporters. A unit wins on husk supply, so plants sit close to coconut growing areas where husk can be collected cheaply all year. The coir pith separated from the same husk is sold to cocopeat block makers and adds a second income.

Sales are typically made to rubberised coir mattress manufacturers; coir yarn and rope spinning units; brush, broom and doormat makers; coir geotextile and mat producers; fibre traders and exporters; and cocopeat and growing media makers.

Because demand and competition vary from one district to the next, the market section of a full report is prepared for the promoter's chosen location, with a list of existing manufacturers.

## 4 Manufacturing process

Production of coir fibre follows seven main steps, from husk soaking to baling. The flow chart shows how material moves through the plant.



Process flow for coir fibre

- 1 Husk soaking.** Dry husks are soaked in water tanks for one to three days so the fibre softens and separates cleanly.
- 2 Crushing.** A husk crusher splits and flattens the soaked husk so the defibering drum can open it.
- 3 Defibering.** A rotor with steel beaters throws the husk against a cage and separates long fibre from pith and short fibre.
- 4 Cleaning and screening.** A cleaning machine removes pith and short fibre still stuck to the long fibre.
- 5 Drying.** Wet fibre is spread in the yard and sun dried until moisture is low enough for baling.
- 6 Pith separation.** A rotary sifter separates saleable coir pith from dust and short fibre.
- 7 Baling.** Dry fibre is pressed into tied bales of about 30 to 120 kg for dispatch.

## 5 Raw materials

The plant uses dry mature coconut husk (delivered) and green coconut husk (delivered). Raw material purchases in Year 3 are estimated at ₹44.92 lakh, which is 48.4% of sales. The split by material is shown below.

| Raw material                        | Share of cost | Year 3 cost (₹ lakh) |
|-------------------------------------|---------------|----------------------|
| Dry mature coconut husk (delivered) | 85.0%         | 38.18                |
| Green coconut husk (delivered)      | 15.0%         | 6.74                 |
| <b>Total raw materials</b>          | <b>100.0%</b> | <b>44.92</b>         |

## 6 Plant and machinery

Plant and machinery accounts for ₹20.30 lakh of the project cost. The defibering machine (burster) takes the largest share, and the other items and their indicative costs are listed below.

| Machinery and equipment              | Indicative cost (₹ lakh) |
|--------------------------------------|--------------------------|
| Husk crusher                         | 2.43                     |
| Defibering machine (burster)         | 5.28                     |
| Fibre cleaning and screening machine | 2.84                     |
| Pith sifter and separation drum      | 2.03                     |
| Hydraulic fibre baling press         | 3.25                     |
| Belt conveyors and husk feeders      | 1.83                     |
| Husk soaking tank with pumps         | 1.22                     |
| Electrical control panel and cabling | 1.42                     |
| <b>Total plant and machinery</b>     | <b>20.30</b>             |

## 7 Land, building and utilities

Land and site development is taken at ₹3.92 lakh and building and civil works at ₹10.97 lakh. Other fixed assets, including electrification, furniture, testing equipment and power backup, add ₹2.37 lakh. Land rates vary widely by location, so these are the figures most likely to change in a real project.

Power and fuel cost ₹3.24 lakh in Year 3, about 3.5% of sales. Water is needed for cleaning, domestic use and, where the process calls for it, production.

## 8 Manpower

Staffing for the model unit is 6 people, at a Year 1 cost of ₹10.02 lakh. Wages are escalated by 5% each year in the projections.

| Category                                   | Number   | Monthly wage (₹) | Annual cost (₹ lakh) |
|--------------------------------------------|----------|------------------|----------------------|
| Management, supervision and administration | 1        | 23,500           | 2.82                 |
| Skilled workers and operators              | 2        | 15,000           | 3.60                 |
| Semi-skilled and unskilled workers         | 3        | 10,000           | 3.60                 |
| <b>Total (Year 1)</b>                      | <b>6</b> |                  | <b>10.02</b>         |

## 9 Licences and approvals

A unit of this kind typically needs the following registrations and approvals. Requirements vary by state and by the exact product, so confirm them with the local authorities before applying.

- Udyam (MSME) registration
- GST registration
- Consent to establish and consent to operate from the State Pollution Control Board
- Factory licence or registration under the applicable labour law, where the workforce threshold applies
- Fire safety NOC, where required
- Trade licence from the local body
- Registration with the Coir Board, and its licence for export of coir fibre
- IS 9308 Part 2 for mechanically extracted mattress coir fibre

## 10 Project cost and means of finance

Setting up the unit costs ₹43.21 lakh in all, of which plant and machinery is ₹20.30 lakh. The estimate includes a 5% contingency on building and machinery, pre-operative expenses and the margin money needed to start working capital.

| Cost of project                                                        | ₹ lakh       |
|------------------------------------------------------------------------|--------------|
| Land and site development                                              | 3.92         |
| Building and civil works                                               | 10.97        |
| Plant and machinery                                                    | 20.30        |
| Other fixed assets (electrification, furniture, lab equipment, DG set) | 2.37         |
| Contingencies                                                          | 1.56         |
| Preliminary and pre-operative expenses                                 | 0.98         |
| Margin money for working capital                                       | 3.11         |
| <b>Total cost of project</b>                                           | <b>43.21</b> |

## Means of finance

The project is financed 75:25 between bank debt and the promoter's own funds. A term loan covers ₹32.41 lakh and the promoter brings in ₹10.80 lakh. Separately, a cash credit limit of ₹9.33 lakh finances 75% of the working capital requirement.

| Source of funds                                         | ₹ lakh       |
|---------------------------------------------------------|--------------|
| Promoter's contribution (25%)                           | 10.80        |
| Term loan from bank (75%)                               | 32.41        |
| <b>Total means of finance</b>                           | <b>43.21</b> |
| <i>Cash credit limit for working capital (separate)</i> | <i>9.33</i>  |

## 11 Working capital

Working capital is worked out from holding periods: 45 days of raw material, 20 days of finished goods and 30 days of credit to customers, less 20 days of credit from suppliers. In Year 1 the requirement is ₹12.44 lakh. The bank funds ₹9.33 lakh through cash credit and the promoter's margin covers ₹3.11 lakh.

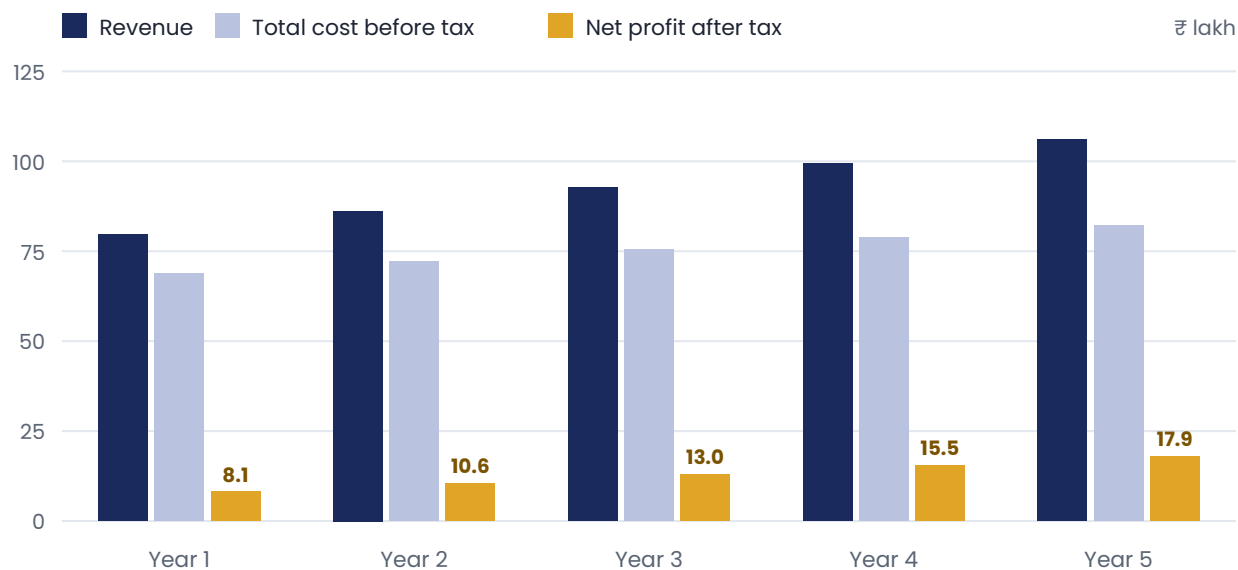
| Particulars (₹ lakh)               | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Raw material stock (45 days)       | 4.75                 | 5.14                 | 5.54                 | 5.93                 | 6.33                 |
| Work in progress (3 days)          | 0.42                 | 0.45                 | 0.49                 | 0.52                 | 0.55                 |
| Finished goods (20 days)           | 2.94                 | 3.17                 | 3.39                 | 3.62                 | 3.85                 |
| Trade receivables (30 days)        | 6.54                 | 7.08                 | 7.63                 | 8.17                 | 8.72                 |
| <b>Total current assets</b>        | <b>14.65</b>         | <b>15.84</b>         | <b>17.05</b>         | <b>18.24</b>         | <b>19.45</b>         |
| Less: trade creditors (20 days)    | 2.21                 | 2.39                 | 2.58                 | 2.76                 | 2.95                 |
| <b>Working capital requirement</b> | <b>12.44</b>         | <b>13.45</b>         | <b>14.47</b>         | <b>15.48</b>         | <b>16.50</b>         |

## 12 Projected profitability

As utilisation climbs from 60% to 80%, sales increase from ₹79.56 lakh to ₹106.08 lakh.

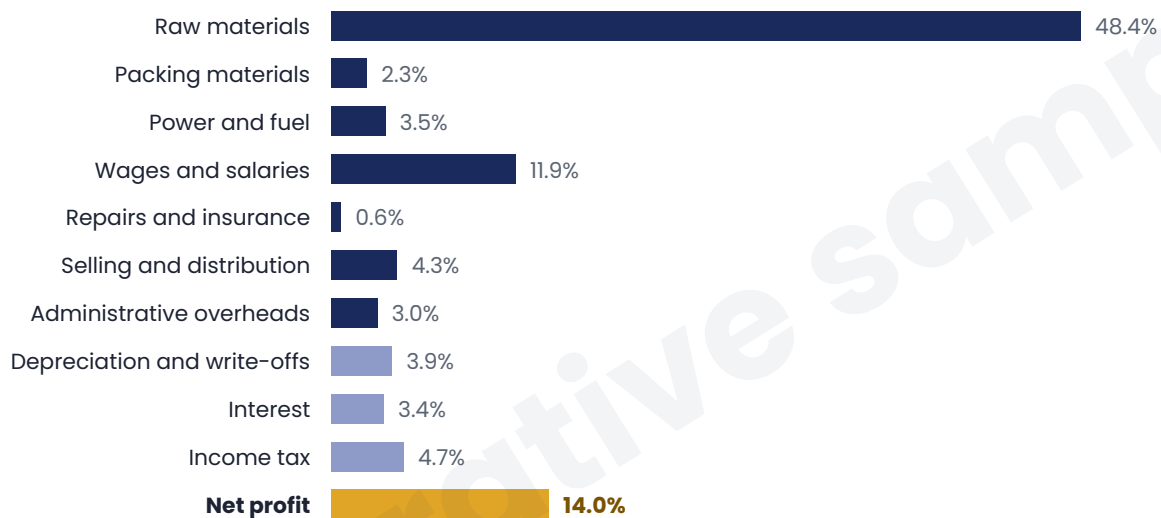
Operating profit in Year 3 is ₹24.15 lakh, a margin of 26%, and net profit after tax grows from ₹8.12 lakh in Year 1 to ₹17.93 lakh in Year 5.

| Particulars (₹ lakh)              | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Capacity utilisation (%)          | 60%                  | 65%                  | 70%                  | 75%                  | 80%                  |
| Revenue from operations           | 79.56                | 86.19                | 92.82                | 99.45                | 106.08               |
| Raw materials consumed            | 38.50                | 41.71                | 44.92                | 48.13                | 51.34                |
| Packing materials                 | 1.84                 | 1.99                 | 2.15                 | 2.30                 | 2.45                 |
| Power and fuel                    | 2.77                 | 3.01                 | 3.24                 | 3.47                 | 3.70                 |
| Wages and salaries                | 10.02                | 10.52                | 11.05                | 11.60                | 12.18                |
| Repairs and maintenance           | 0.41                 | 0.43                 | 0.45                 | 0.47                 | 0.49                 |
| Insurance                         | 0.14                 | 0.14                 | 0.14                 | 0.14                 | 0.14                 |
| Cost of production                | 53.68                | 57.80                | 61.95                | 66.11                | 70.30                |
| <b>Gross profit</b>               | <b>25.88</b>         | <b>28.39</b>         | <b>30.87</b>         | <b>33.34</b>         | <b>35.78</b>         |
| Selling and distribution expenses | 3.40                 | 3.68                 | 3.96                 | 4.25                 | 4.53                 |
| Administrative overheads          | 2.50                 | 2.63                 | 2.76                 | 2.90                 | 3.04                 |
| <b>Operating profit (EBITDA)</b>  | <b>19.98</b>         | <b>22.08</b>         | <b>24.15</b>         | <b>26.19</b>         | <b>28.21</b>         |
| Depreciation                      | 4.59                 | 3.97                 | 3.43                 | 2.97                 | 2.59                 |
| Preliminary expenses written off  | 0.20                 | 0.20                 | 0.20                 | 0.20                 | 0.18                 |
| Interest on term loan             | 3.34                 | 2.80                 | 2.11                 | 1.35                 | 0.50                 |
| Interest on cash credit           | 1.03                 | 1.03                 | 1.03                 | 1.03                 | 1.03                 |
| <b>Profit before tax</b>          | <b>10.82</b>         | <b>14.08</b>         | <b>17.38</b>         | <b>20.64</b>         | <b>23.91</b>         |
| Income tax                        | 2.70                 | 3.52                 | 4.34                 | 5.16                 | 5.98                 |
| <b>Profit after tax</b>           | <b>8.12</b>          | <b>10.56</b>         | <b>13.04</b>         | <b>15.48</b>         | <b>17.93</b>         |



Revenue, total cost before tax and net profit after tax, ₹ lakh

### Where each rupee of sales goes in Year 3



Each cost head as a percentage of Year 3 sales

## 13 Cash flow statement

The cash flow statement sets out the sources and uses of funds year by year. The unit stays cash positive throughout and closes Year 5 with a cash balance of ₹47.19 lakh after meeting the loan repayments due.

| Particulars (₹ lakh)                    | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-----------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Sources of funds</b>                 |                      |                      |                      |                      |                      |
| Promoter's contribution                 | 10.80                | –                    | –                    | –                    | –                    |
| Term loan from bank                     | 32.41                | –                    | –                    | –                    | –                    |
| Cash credit (working capital) from bank | 9.33                 | –                    | –                    | –                    | –                    |
| Net profit after tax                    | 8.12                 | 10.56                | 13.04                | 15.48                | 17.93                |
| Depreciation                            | 4.59                 | 3.97                 | 3.43                 | 2.97                 | 2.59                 |
| Preliminary expenses written off        | 0.20                 | 0.20                 | 0.20                 | 0.20                 | 0.18                 |
| Increase in trade creditors             | 2.21                 | 0.18                 | 0.19                 | 0.18                 | 0.19                 |
| <b>Total sources</b>                    | <b>67.66</b>         | <b>14.91</b>         | <b>16.86</b>         | <b>18.83</b>         | <b>20.89</b>         |
| <b>Application of funds</b>             |                      |                      |                      |                      |                      |
| Fixed assets                            | 39.12                | –                    | –                    | –                    | –                    |
| Preliminary and pre-operative expenses  | 0.98                 | –                    | –                    | –                    | –                    |
| Increase in inventories                 | 8.11                 | 0.65                 | 0.66                 | 0.65                 | 0.66                 |
| Increase in trade receivables           | 6.54                 | 0.54                 | 0.55                 | 0.54                 | 0.55                 |
| Repayment of term loan                  | 2.90                 | 6.26                 | 6.96                 | 7.72                 | 8.57                 |
| Drawings                                | –                    | –                    | –                    | –                    | –                    |
| <b>Total application</b>                | <b>57.65</b>         | <b>7.45</b>          | <b>8.17</b>          | <b>8.91</b>          | <b>9.78</b>          |
| <b>Net cash flow</b>                    | <b>10.01</b>         | <b>7.46</b>          | <b>8.69</b>          | <b>9.92</b>          | <b>11.11</b>         |
| Opening cash balance                    | –                    | 10.01                | 17.47                | 26.16                | 36.08                |
| <b>Closing cash balance</b>             | <b>10.01</b>         | <b>17.47</b>         | <b>26.16</b>         | <b>36.08</b>         | <b>47.19</b>         |

## 14 Projected balance sheet

Over the projection, retained profits build the promoter's net worth from ₹18.14 lakh to ₹75.93 lakh, and the term loan reduces from ₹29.51 lakh to nil as it is repaid.

| As at year end (₹ lakh)              | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|--------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Liabilities</b>                   |                      |                      |                      |                      |                      |
| Promoter's capital                   | 10.80                | 10.80                | 10.80                | 10.80                | 10.80                |
| Reserves and surplus                 | 8.12                 | 18.68                | 31.72                | 47.20                | 65.13                |
| Term loan                            | 29.51                | 23.25                | 16.29                | 8.57                 | –                    |
| Cash credit from bank                | 9.33                 | 9.33                 | 9.33                 | 9.33                 | 9.33                 |
| Trade creditors                      | 2.21                 | 2.39                 | 2.58                 | 2.76                 | 2.95                 |
| <b>Total liabilities</b>             | <b>59.97</b>         | <b>64.45</b>         | <b>70.72</b>         | <b>78.66</b>         | <b>88.21</b>         |
| <b>Assets</b>                        |                      |                      |                      |                      |                      |
| Gross fixed assets                   | 39.12                | 39.12                | 39.12                | 39.12                | 39.12                |
| Less: accumulated depreciation       | (4.59)               | (8.56)               | (11.99)              | (14.96)              | (17.55)              |
| <b>Net fixed assets</b>              | <b>34.53</b>         | <b>30.56</b>         | <b>27.13</b>         | <b>24.16</b>         | <b>21.57</b>         |
| Preliminary expenses not written off | 0.78                 | 0.58                 | 0.38                 | 0.18                 | –                    |
| Inventories                          | 8.11                 | 8.76                 | 9.42                 | 10.07                | 10.73                |
| Trade receivables                    | 6.54                 | 7.08                 | 7.63                 | 8.17                 | 8.72                 |
| Cash and bank balance                | 10.01                | 17.47                | 26.16                | 36.08                | 47.19                |
| <b>Total assets</b>                  | <b>59.97</b>         | <b>64.45</b>         | <b>70.72</b>         | <b>78.66</b>         | <b>88.21</b>         |

## 15 Depreciation

Fixed assets are depreciated on the written-down value method, at 15% a year for plant and machinery, 10% for building and 10% for other assets. Land carries no depreciation.

Preliminary and pre-operative expenses are written off in equal parts over five years.

| Particulars (₹ lakh)                                        | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Building and civil works (cost ₹11.52 lakh, 10% WDV)</b> |                      |                      |                      |                      |                      |
| Opening written-down value                                  | 11.52                | 10.37                | 9.33                 | 8.40                 | 7.56                 |
| Depreciation                                                | 1.15                 | 1.04                 | 0.93                 | 0.84                 | 0.76                 |
| Closing written-down value                                  | 10.37                | 9.33                 | 8.40                 | 7.56                 | 6.80                 |
| <b>Plant and machinery (cost ₹21.31 lakh, 15% WDV)</b>      |                      |                      |                      |                      |                      |
| Opening written-down value                                  | 21.31                | 18.11                | 15.39                | 13.08                | 11.12                |
| Depreciation                                                | 3.20                 | 2.72                 | 2.31                 | 1.96                 | 1.67                 |
| Closing written-down value                                  | 18.11                | 15.39                | 13.08                | 11.12                | 9.45                 |
| <b>Other fixed assets (cost ₹2.37 lakh, 10% WDV)</b>        |                      |                      |                      |                      |                      |
| Opening written-down value                                  | 2.37                 | 2.13                 | 1.92                 | 1.73                 | 1.56                 |
| Depreciation                                                | 0.24                 | 0.21                 | 0.19                 | 0.17                 | 0.16                 |
| Closing written-down value                                  | 2.13                 | 1.92                 | 1.73                 | 1.56                 | 1.40                 |
| <b>Total depreciation</b>                                   | <b>4.59</b>          | <b>3.97</b>          | <b>3.43</b>          | <b>2.97</b>          | <b>2.59</b>          |
| Preliminary expenses written off                            | 0.20                 | 0.20                 | 0.20                 | 0.20                 | 0.18                 |

## 16 Term loan repayment

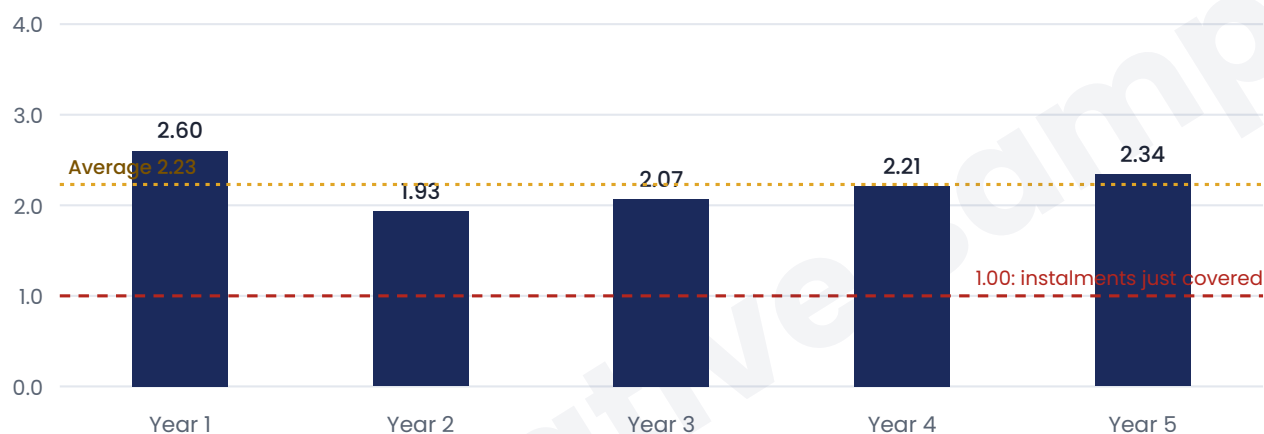
The term loan of ₹32.41 lakh carries interest at 10.5% a year. Only interest is paid during the 6-month moratorium, after which the loan is repaid in 54 equal monthly instalments of ₹75,568. The month-by-month schedule is in the annexure.

| Particulars (₹ lakh)   | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Opening balance        | 32.41                | 29.51                | 23.25                | 16.29                | 8.57                 |
| Interest               | 3.34                 | 2.80                 | 2.11                 | 1.35                 | 0.50                 |
| Principal repaid       | 2.90                 | 6.26                 | 6.96                 | 7.72                 | 8.57                 |
| <b>Closing balance</b> | <b>29.51</b>         | <b>23.25</b>         | <b>16.29</b>         | <b>8.57</b>          | <b>—</b>             |

## 17 Debt service coverage

The debt service coverage ratio averages 2.23 over the repayment years, with a low of 1.93 in Year 2. A DSCR above 1 means the unit earns enough to meet its loan instalments, and the model keeps a margin above that in every year.

| Particulars (₹ lakh)                        | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|---------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Net profit after tax                        | 8.12                 | 10.56                | 13.04                | 15.48                | 17.93                |
| Depreciation and write-offs                 | 4.79                 | 4.17                 | 3.63                 | 3.17                 | 2.77                 |
| Interest on term loan                       | 3.34                 | 2.80                 | 2.11                 | 1.35                 | 0.50                 |
| <b>Total available for debt service (A)</b> | <b>16.25</b>         | <b>17.53</b>         | <b>18.78</b>         | <b>20.00</b>         | <b>21.20</b>         |
| Principal repayment                         | 2.90                 | 6.26                 | 6.96                 | 7.72                 | 8.57                 |
| Interest on term loan                       | 3.34                 | 2.80                 | 2.11                 | 1.35                 | 0.50                 |
| <b>Total debt service (B)</b>               | <b>6.24</b>          | <b>9.06</b>          | <b>9.07</b>          | <b>9.07</b>          | <b>9.07</b>          |
| <b>DSCR (A / B)</b>                         | <b>2.60</b>          | <b>1.93</b>          | <b>2.07</b>          | <b>2.21</b>          | <b>2.34</b>          |

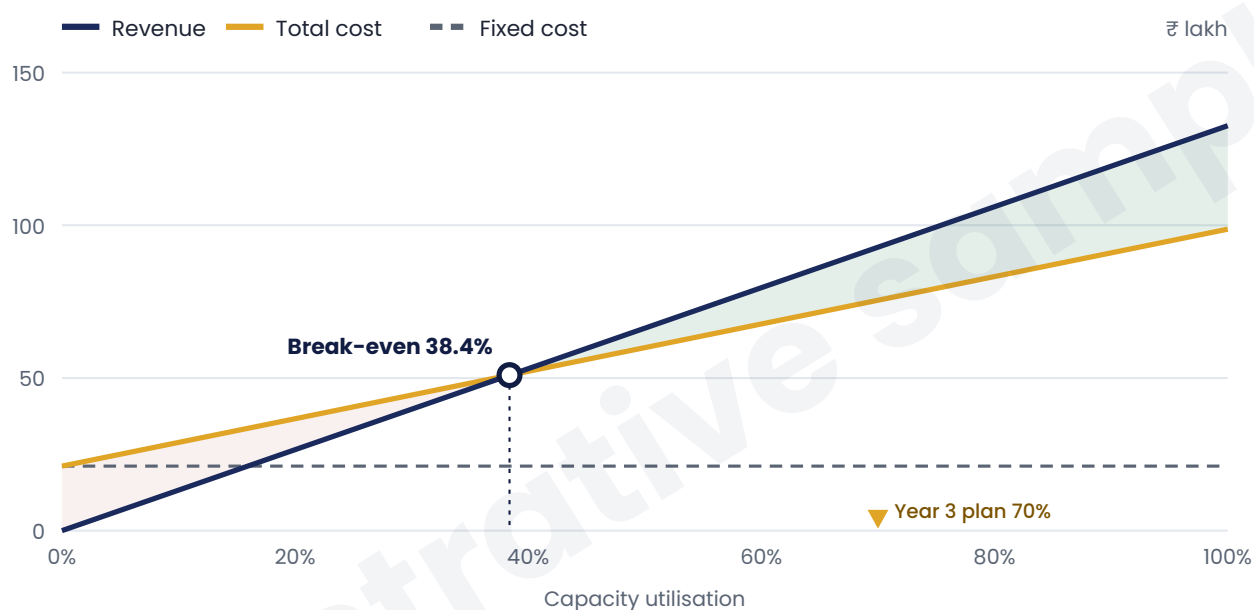


DSCR by year. A ratio above 1.00 means cash accruals cover the term loan instalments.

## 18 Break-even analysis

At Year 3 levels the unit breaks even at 38.4% of installed capacity, against planned utilisation of 70%. On a cash basis, leaving out depreciation and write-offs, break-even falls to 31.8%.

| Particulars (₹ lakh)                          | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-----------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Revenue from operations                       | 79.56                | 86.19                | 92.82                | 99.45                | 106.08               |
| Variable costs                                | 46.51                | 50.39                | 54.27                | 58.15                | 62.02                |
| <b>Contribution</b>                           | <b>33.05</b>         | <b>35.80</b>         | <b>38.55</b>         | <b>41.30</b>         | <b>44.06</b>         |
| Fixed costs (incl. depreciation and interest) | 22.23                | 21.72                | 21.17                | 20.66                | 20.15                |
| Break-even as % of installed capacity         | 40.4                 | 39.4                 | 38.4                 | 37.5                 | 36.6                 |
| Cash break-even as % of installed capacity    | 31.7                 | 31.9                 | 31.8                 | 31.8                 | 31.6                 |
| Break-even sales                              | 53.51                | 52.29                | 50.97                | 49.75                | 48.51                |



Break-even chart at Year 3 prices and costs, scaled to full capacity. Shaded areas show the loss zone (left) and profit zone (right).

## 19 Financial ratios

The table summarises the main ratios a lender reviews. The current ratio is 2.14 or better in every year, and the debt-equity ratio falls from 1.63 at the end of Year 1 to zero by Year 5.

| Ratio                                     | Year 1<br>FY 2027-28 | Year 2<br>FY 2028-29 | Year 3<br>FY 2029-30 | Year 4<br>FY 2030-31 | Year 5<br>FY 2031-32 |
|-------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Current ratio                             | 2.14                 | 2.84                 | 3.63                 | 4.49                 | 5.43                 |
| Quick ratio                               | 1.43                 | 2.09                 | 2.84                 | 3.66                 | 4.55                 |
| Debt-equity ratio (term loan / net worth) | 1.63                 | 0.80                 | 0.39                 | 0.15                 | 0.00                 |
| Total outside liabilities / net worth     | 2.26                 | 1.21                 | 0.67                 | 0.36                 | 0.16                 |
| Interest coverage ratio                   | 3.48                 | 4.68                 | 6.54                 | 9.67                 | 16.63                |
| DSCR                                      | 2.60                 | 1.93                 | 2.07                 | 2.21                 | 2.34                 |
| Gross profit margin (%)                   | 32.5                 | 32.9                 | 33.3                 | 33.5                 | 33.7                 |
| Operating profit (EBITDA) margin (%)      | 25.1                 | 25.6                 | 26.0                 | 26.3                 | 26.6                 |
| Net profit margin (%)                     | 10.2                 | 12.3                 | 14.0                 | 15.6                 | 16.9                 |
| Return on capital employed (%)            | 26.7                 | 29.1                 | 30.3                 | 30.4                 | 29.8                 |
| Break-even (% of installed capacity)      | 40.4                 | 39.4                 | 38.4                 | 37.5                 | 36.6                 |

## 20 Key assumptions

- Commercial production starts in April 2027, and all assets are in use from the first year.
- Capacity utilisation of 60% in Year 1, rising to 80% by Year 5, over 300 working days a year.
- Selling price of ₹22,100 per MT, excluding GST, held constant through the projection.
- Raw materials at 48.4% of sales, packing materials at 2.3%, power and fuel at 3.5%, and selling and distribution at 4.3%.
- Wages and salaries rise by 5% a year; repairs and administrative overheads rise by 5% a year.
- Working capital based on 45 days of raw material, 3 days of work in progress, 20 days of finished goods and 30 days of receivables, less 20 days of creditors.
- Term loan at 10.5% interest with a 6-month moratorium and 54 monthly instalments; cash credit at 11% on 75% of the working capital requirement.
- Depreciation on the written-down value method at Income Tax Act rates; income tax at a flat 25% of profit for simplicity.
- Contingency of 5% on building and machinery; preliminary and pre-operative expenses written off over five years.
- All amounts in ₹ lakh unless stated otherwise, excluding GST.

## 21 Conclusion

On these illustrative assumptions, a coir fibre unit of 2 MT per day costs ₹43.21 lakh to set up, earns an average return of 30.1% on that investment and pays back in about 2.9 years. An average DSCR of 2.23 and break-even at 38.4% of capacity point to a project that can carry its bank debt. Actual figures depend on the location, the machinery chosen, input prices and the promoter's plans, which is why a full report is prepared for each project.

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This document is a computer-generated illustrative sample. The capacity, prices, costs and projections are representative assumptions for a typical small-scale unit and are not based on any specific project, location or quotation. Statutory requirements change and vary by state. Niir Project Consultancy Services accepts no liability for decisions taken on the basis of this sample.

## A Annexure: monthly loan repayment schedule

Term loan of ₹32.41 lakh at 10.5% a year. Amounts in ₹ lakh.

| No. | Month    | Opening balance | Interest | Principal | Instalment | Closing balance |
|-----|----------|-----------------|----------|-----------|------------|-----------------|
| 1   | Apr 2027 | 32.41           | 0.28     | –         | 0.28       | 32.41           |
| 2   | May 2027 | 32.41           | 0.28     | –         | 0.28       | 32.41           |
| 3   | Jun 2027 | 32.41           | 0.28     | –         | 0.28       | 32.41           |
| 4   | Jul 2027 | 32.41           | 0.28     | –         | 0.28       | 32.41           |
| 5   | Aug 2027 | 32.41           | 0.28     | –         | 0.28       | 32.41           |
| 6   | Sep 2027 | 32.41           | 0.28     | –         | 0.28       | 32.41           |
| 7   | Oct 2027 | 32.41           | 0.28     | 0.47      | 0.76       | 31.94           |
| 8   | Nov 2027 | 31.94           | 0.28     | 0.48      | 0.76       | 31.46           |
| 9   | Dec 2027 | 31.46           | 0.28     | 0.48      | 0.76       | 30.98           |
| 10  | Jan 2028 | 30.98           | 0.27     | 0.48      | 0.76       | 30.50           |
| 11  | Feb 2028 | 30.50           | 0.27     | 0.49      | 0.76       | 30.01           |
| 12  | Mar 2028 | 30.01           | 0.26     | 0.49      | 0.76       | 29.51           |
| 13  | Apr 2028 | 29.51           | 0.26     | 0.50      | 0.76       | 29.02           |
| 14  | May 2028 | 29.02           | 0.25     | 0.50      | 0.76       | 28.52           |
| 15  | Jun 2028 | 28.52           | 0.25     | 0.51      | 0.76       | 28.01           |
| 16  | Jul 2028 | 28.01           | 0.25     | 0.51      | 0.76       | 27.50           |
| 17  | Aug 2028 | 27.50           | 0.24     | 0.52      | 0.76       | 26.98           |
| 18  | Sep 2028 | 26.98           | 0.24     | 0.52      | 0.76       | 26.46           |
| 19  | Oct 2028 | 26.46           | 0.23     | 0.52      | 0.76       | 25.94           |
| 20  | Nov 2028 | 25.94           | 0.23     | 0.53      | 0.76       | 25.41           |
| 21  | Dec 2028 | 25.41           | 0.22     | 0.53      | 0.76       | 24.88           |
| 22  | Jan 2029 | 24.88           | 0.22     | 0.54      | 0.76       | 24.34           |
| 23  | Feb 2029 | 24.34           | 0.21     | 0.54      | 0.76       | 23.80           |
| 24  | Mar 2029 | 23.80           | 0.21     | 0.55      | 0.76       | 23.25           |
| 25  | Apr 2029 | 23.25           | 0.20     | 0.55      | 0.76       | 22.70           |
| 26  | May 2029 | 22.70           | 0.20     | 0.56      | 0.76       | 22.14           |
| 27  | Jun 2029 | 22.14           | 0.19     | 0.56      | 0.76       | 21.58           |
| 28  | Jul 2029 | 21.58           | 0.19     | 0.57      | 0.76       | 21.01           |
| 29  | Aug 2029 | 21.01           | 0.18     | 0.57      | 0.76       | 20.44           |
| 30  | Sep 2029 | 20.44           | 0.18     | 0.58      | 0.76       | 19.86           |
| 31  | Oct 2029 | 19.86           | 0.17     | 0.58      | 0.76       | 19.28           |
| 32  | Nov 2029 | 19.28           | 0.17     | 0.59      | 0.76       | 18.69           |
| 33  | Dec 2029 | 18.69           | 0.16     | 0.59      | 0.76       | 18.10           |
| 34  | Jan 2030 | 18.10           | 0.16     | 0.60      | 0.76       | 17.50           |
| 35  | Feb 2030 | 17.50           | 0.15     | 0.60      | 0.76       | 16.90           |
| 36  | Mar 2030 | 16.90           | 0.15     | 0.61      | 0.76       | 16.29           |
| 37  | Apr 2030 | 16.29           | 0.14     | 0.61      | 0.76       | 15.68           |
| 38  | May 2030 | 15.68           | 0.14     | 0.62      | 0.76       | 15.06           |
| 39  | Jun 2030 | 15.06           | 0.13     | 0.62      | 0.76       | 14.44           |

| No. | Month    | Opening balance | Interest | Principal | Instalment | Closing balance |
|-----|----------|-----------------|----------|-----------|------------|-----------------|
| 40  | Jul 2030 | 14.44           | 0.13     | 0.63      | 0.76       | 13.81           |
| 41  | Aug 2030 | 13.81           | 0.12     | 0.63      | 0.76       | 13.17           |
| 42  | Sep 2030 | 13.17           | 0.12     | 0.64      | 0.76       | 12.53           |
| 43  | Oct 2030 | 12.53           | 0.11     | 0.65      | 0.76       | 11.89           |
| 44  | Nov 2030 | 11.89           | 0.10     | 0.65      | 0.76       | 11.24           |
| 45  | Dec 2030 | 11.24           | 0.10     | 0.66      | 0.76       | 10.58           |
| 46  | Jan 2031 | 10.58           | 0.09     | 0.66      | 0.76       | 9.92            |
| 47  | Feb 2031 | 9.92            | 0.09     | 0.67      | 0.76       | 9.25            |
| 48  | Mar 2031 | 9.25            | 0.08     | 0.67      | 0.76       | 8.57            |
| 49  | Apr 2031 | 8.57            | 0.08     | 0.68      | 0.76       | 7.89            |
| 50  | May 2031 | 7.89            | 0.07     | 0.69      | 0.76       | 7.21            |
| 51  | Jun 2031 | 7.21            | 0.06     | 0.69      | 0.76       | 6.51            |
| 52  | Jul 2031 | 6.51            | 0.06     | 0.70      | 0.76       | 5.81            |
| 53  | Aug 2031 | 5.81            | 0.05     | 0.70      | 0.76       | 5.11            |
| 54  | Sep 2031 | 5.11            | 0.04     | 0.71      | 0.76       | 4.40            |
| 55  | Oct 2031 | 4.40            | 0.04     | 0.72      | 0.76       | 3.68            |
| 56  | Nov 2031 | 3.68            | 0.03     | 0.72      | 0.76       | 2.96            |
| 57  | Dec 2031 | 2.96            | 0.03     | 0.73      | 0.76       | 2.23            |
| 58  | Jan 2032 | 2.23            | 0.02     | 0.74      | 0.76       | 1.49            |
| 59  | Feb 2032 | 1.49            | 0.01     | 0.74      | 0.76       | 0.75            |
| 60  | Mar 2032 | 0.75            | 0.01     | 0.75      | 0.76       | –               |