

# **PROJECT REPORT**

**Of**

## **COIR/COCONUT FIBRE EXTRACTION**

### **PURPOSE OF THE DOCUMENT**

This particular pre-feasibility is regarding **COIR/COCONUT FIBRE EXTRACTION**

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

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



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### PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : XXXXXXXX
- 2 Constitution (legal Status) : XXXXXXXX
- 3 Father's/Spouce's Name : XXXXXXXX
- 4 Unit Address : XXXXXXXX
- Taluk/Block: XXXXX
- District : XXXXX State: XXXXX
- Pin: XXXXX
- E-Mail : XXXXX
- Mobile XXXXX
- 5 Product and By Product : Coir Extraction Unit
- 6 Name of the project / business activity proposed : Coir Extraction Unit
- 7 Cost of Project : Rs25.00lacs
- 8 Means of Finance
- |                   |                            |
|-------------------|----------------------------|
| Term Loan         | Rs.13.5 Lacs               |
| KVIC Margin Money | As per Project Eligibility |
| Own Capital       | Rs.2.5 Lacs                |
| Working Capital   | Rs.9 Lacs                  |
- 9 Debt Service Coverage Ratio : 1.71
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 8 Months
- 12 Break Even Point : 44%
- 13 Employment : 12 Persons
- 14 Power Requirement : 40.00 HP
- 15 Major Raw materials : Coir Extraction Unit
- 16 Estimated Annual Sales Turnover : 119.70 Lacs
- 16 Detailed Cost of Project & Means of Finance

**COST OF PROJECT**

(Rs. In Lacs)

Particulars	Amount
Land	Rented/Owned
Building & Civil Work (1200 Sq Ft)	2.00
Plant & Machinery	12.55
Furniture & Fixtures	0.45
Pre-operative Expenses	-
Working Capital Requirement	10.00
<b>Total</b>	<b>25.00</b>

**MEANS OF FINANCE**

Particulars	Amount
Own Contribution @10%	2.50
Term Loan	13.50
Workign Capital Finance	9.00
<b>Total</b>	<b>25.00</b>

	<b>General</b>	<b>Special</b>
KVIC Margin Monery Urban	15%	25%
KVIC Margin Monery Rural	25%	35%

PLANT & MACHINERY

PARTICULARS	QTY.	RATE	AMOUNT IN RS.
Disintegrator 10 HP	1.00	230000	230000
Decorticator 30 HP each	1.00	341000	341000
Screener 2HP	1.00	70000	70000
Bailing Press 5 HP	1.00	160000	160000
Conveyors (as per the requirement) 4 HP	1.00	364000	364000
Well & Pump set 2 HP		90000	90000
Sub- Total			12,55,000.00

TOTAL			12,55,000.00
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## PROJECT PROFILE FOR COIR FIBRE EXTRACTION UNIT



### **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 11.5% 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	:	60%
-Second year	:	65%
-Third year	:	70%
-Fourth year	:	75%
-Fifth year	:	80%
Interest on term loan	:	11.5%
Interest on Working capital	:	11.5%
Average Sales realization	:	Rs.28000 per ton of coir fiber
Lease rental Cost	:	Rs.3000
Depreciation of machinery	:	15%
Depreciation of Building	:	10%
<b>Manpower requirement</b>		
Skilled workers	:	4
Semi-Skilled workers	:	6
Admin & sales personnel	:	2
Total HP required	:	40 HP

**PROJECTED BALANCE SHEET**

<b>PARTICULARS</b>	<b>IST YEAR</b>	<b>IIND YEAR</b>	<b>IIIRD YEAR</b>	<b>IVTH YEAR</b>	<b>VTH YEAR</b>
<b><u>SOURCES OF FUND</u></b>					
Capital Account	2.50	2.50	2.50	2.50	2.50
Retained Profit	4.32	8.40	12.87	18.05	23.81
Term Loan	13.50	10.13	6.75	3.38	-
Cash Credit	9.00	9.00	9.00	9.00	9.00
Sundry Creditors	2.27	2.46	2.65	2.84	3.02
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
<b>TOTAL :</b>	<b>31.95</b>	<b>32.88</b>	<b>34.20</b>	<b>36.24</b>	<b>38.87</b>
<b><u>APPLICATION OF FUND</u></b>					
<b>Fixed Assets ( Gross)</b>	15.00	15.00	15.00	15.00	15.00
Gross Dep.	2.11	3.93	5.49	6.82	7.97
Net Fixed Assets	12.90	11.07	9.51	8.18	7.03
<b>Current Assets</b>					
Sundry Debtors	3.99	4.53	4.88	5.23	5.58
Stock in Hand	8.28	8.97	9.66	10.35	11.04
Cash and Bank	4.29	5.56	7.12	9.16	11.55
Deposits & Advances	2.50	2.75	3.03	3.33	3.66
<b>TOTAL :</b>	<b>31.95</b>	<b>32.88</b>	<b>34.20</b>	<b>36.24</b>	<b>38.87</b>

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**PROJECTED CASH FLOW STATEMENT**

<b>PARTICULARS</b>	<b>IST YEAR</b>	<b>IIND YEAR</b>	<b>IIIRD YEAR</b>	<b>IVTH YEAR</b>	<b>VTH YEAR</b>
<b><u>SOURCES OF FUND</u></b>					
Share Capital	2.50	-	-	-	-
Reserve & Surplus	4.32	4.54	5.58	6.48	7.20
Depriciation & Exp. W/off	2.11	1.82	1.56	1.34	1.15
Increase in Cash Credit	9.00	-	-	-	-
Increase In Term Loan	13.50	-	-	-	-
Increase in Creditors	2.27	0.19	0.19	0.19	0.19
Increase in Provisions	0.36	0.04	0.04	0.04	0.05
<b>TOTAL :</b>	<b>34.06</b>	<b>6.58</b>	<b>7.37</b>	<b>8.04</b>	<b>8.58</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	15.00	-	-	-	-
Increase in Stock	8.28	0.69	0.69	0.69	0.69
Increase in Debtors	3.99	0.54	0.35	0.35	0.35
Increase in Deposits & Adv	2.50	0.25	0.28	0.30	0.33
Repayment of Term Loan	-	3.38	3.38	3.38	3.38
Taxation	-	0.45	1.12	1.30	1.44
<b>TOTAL :</b>	<b>29.77</b>	<b>5.31</b>	<b>5.81</b>	<b>6.01</b>	<b>6.19</b>
Opening Cash & Bank Balance	-	4.29	5.56	7.12	9.16
Add : Surplus	4.29	1.27	1.57	2.03	2.40
Closing Cash & Bank Balance	<b>4.29</b>	<b>5.56</b>	<b>7.12</b>	<b>9.16</b>	<b>11.55</b>



**PROJECTED PROFITABILITY STATEMENT**

<b>PARTICULARS</b>	<b>IST YEAR</b>	<b>IIND YEAR</b>	<b>IIIRD YEAR</b>	<b>IVTH YEAR</b>	<b>VTH YEAR</b>
<b>A) SALES</b>					
Gross Sale	119.70	135.98	146.48	156.98	167.48
<b>Total (A)</b>	<b>119.70</b>	<b>135.98</b>	<b>146.48</b>	<b>156.98</b>	<b>167.48</b>
<b>B) COST OF SALES</b>					
Raw Mateiral Consumed	97.20	105.30	113.40	121.50	129.60
Electricity Expenses	3.44	3.72	4.01	4.30	4.58
Repair & Maintenance	-	1.36	1.46	1.57	1.67
Labour & Wages	8.18	9.00	9.90	10.89	11.98
Depriciation	2.11	1.82	1.56	1.34	1.15
Consumables and Other Expenses	2.39	2.72	2.93	3.14	3.35
<b>Cost of Production</b>	<b>113.32</b>	<b>123.93</b>	<b>133.27</b>	<b>142.74</b>	<b>152.33</b>
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>5.04</b>	<b>5.46</b>	<b>5.88</b>	<b>6.30</b>
<b>Less: Closing Stock /WIP</b>	<b>5.04</b>	<b>5.46</b>	<b>5.88</b>	<b>6.30</b>	<b>6.72</b>
Cost of Sales (B)	108.28	123.51	132.85	142.32	151.91
<b>C) GROSS PROFIT (A-B)</b>	<b>11.42</b>	<b>12.47</b>	<b>13.63</b>	<b>14.66</b>	<b>15.56</b>
	<b>10%</b>	<b>9%</b>	<b>9%</b>	<b>9%</b>	<b>9%</b>
D) Bank Interest (Term Loan )	1.16	1.41	1.02	0.63	0.24
Bank Interest ( C.C. Limit )	0.90	0.90	0.90	0.90	0.90
E) Salary to Staff	2.64	2.90	3.19	3.51	3.87
F) Selling & Adm Expenses Exp.	2.39	2.72	2.93	3.14	3.35
<b>TOTAL (D+E)</b>	<b>7.10</b>	<b>7.93</b>	<b>8.04</b>	<b>8.18</b>	<b>8.36</b>
H) NET PROFIT	4.32	4.54	5.58	6.48	7.20
I) Taxation	-	0.45	1.12	1.30	1.44
J) PROFIT (After Tax)	4.32	4.08	4.47	5.18	5.76

**COMPUTATION OF MANUFACTURING OF COIR FIBRE EXTRACTION UNIT**Items to be Manufactured **COIR FIBRE EXTRACTION UNIT**

Manufacturing Capacity	COIR FIBRE EX	2.50	MT per day
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		750.00	MT
Year		Capacity	Sheet
		Utilisation	
IST YEAR		60%	450
IIND YEAR		65%	488
IIIRD YEAR		70%	525
IVTH YEAR		75%	563
VTH YEAR		80%	600

**COMPUTATION OF RAW MATERIAL**

Item Name	Quantity of Raw Material	Recovery	Unit Rate of / MT	Total Cost Per Annum (100%)
Raw Material	100%	750	100%	21,600.00
Husk requirement of per ton of fiber	12000 Husks			
Cost of Husk	1.80 Rs			
Average cost of Raw material per Ton fo fibre	21,600.00 Rs per ton			
			Total (Rounded off in lacs)	162.00
Annual Consumption cost ( In Lacs)				162.00

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)
IST YEAR	60%	97.20
IIND YEAR	65%	105.30
IIIRD YEAR	70%	113.40
IVTH YEAR	75%	121.50
VTH YEAR	80%	129.60

**COMPUTATION OF SALE**

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	23	24	26	28
Production	450	488	525	563	600
	450	510	549	589	628
Less : Closing Stock	23	24	26	28	30
Net Sale	428	486	523	561	598
Sale Price per ton	28,000.00	28,000.00	28,000.00	28,000.00	28,000.00
<b>Sale (in Lacs)</b>	<b>119.70</b>	<b>135.98</b>	<b>146.48</b>	<b>156.98</b>	<b>167.48</b>

**COMPUTATION OF ELECTRICITY**

<b>(A) POWER CONNECTION</b>				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	40	
Load Factor			0.7460	
Electricity Charges		per unit	8.00	
Total Working Days			300	
<b>Electricity Charges ( 8 Hrs Per day )</b>				5,72,928.00
Add : Minimim Charges (@ 10%)				
<b>(B) D.G. SET</b>				
No. of Working Days			300	days
No of Working Hours			5	Hour per day
Total no of Hour			1,500	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			12,000	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			7.80	
Add : Lube Cost @15%			1.17	
Total			-	
Total cost of Power & Fuel at 100%				5.73
Year		Capacity		Amount
				(in Lacs)
IST YEAR		60%		3.44
IIND YEAR		65%		3.72
IIIRD YEAR		70%		4.01
IVTH YEAR		75%		4.30
VTH YEAR		80%		4.58

**COMPUTATION OF CLOSING STOCK & WORKING CAPITAL**

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<b>Finished Goods</b>					
(15 Days requirement)	5.04	5.46	5.88	6.30	6.72
<b>Raw Material</b>					
(10 Days requirement)	3.24	3.51	3.78	4.05	4.32
<b>Closing Stock</b>	<b>8.28</b>	<b>8.97</b>	<b>9.66</b>	<b>10.35</b>	<b>11.04</b>

**COMPUTATION OF WORKING CAPITAL REQUIREMENT**

Particulars			Total
			Amount
Stock in Hand			8.28
Sundry Debtors			3.99
		Total	12.27
Sundry Creditors			2.27
Working Capital Requirement			<b>10.00</b>
Margin			1.00
Working Capital Finance			<b>9.00</b>

**BREAK UP OF LABOUR**

Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Skilled Worker		8,000.00	4	32,000.00
Unskilled Worker		5,000.00	6	30,000.00
				62,000.00
Add: 10% Fringe Benefit				6,200.00
Total Labour Cost Per Month				68,200.00
Total Labour Cost for the year ( In Rs. Lakhs)				8.18

**BREAK UP OF SALARY**

Particulars		Salary	No of	Total
		Per Month	Employees	Salary
Manager		12,000.00	1	12,000.00
Accountant		8,000.00	1	8,000.00
Total Salary Per Month				20,000.00
Add: 10% Fringe Benefit				2,000.00
Total Salary for the month				22,000.00
Total Salary for the year ( In Rs. Lakhs)				2.64

**COMPUTATION OF DEPRECIATION**

Description	Land	Building	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
<b>Opening Balance</b>	Leased	-	-	-	-
Addition	-	2.00	12.55	0.45	15.00
	-	2.00	12.55	0.45	15.00
Less : Depreciation	-	0.20	1.88	0.02	2.11
WDV at end of Ist year	-	1.80	10.67	0.43	12.90
Additions During The Year	-	-	-	-	-
	-	1.80	10.67	0.43	12.90
Less : Depreciation	-	0.18	1.60	0.04	1.82
WDV at end of IInd Year	-	1.62	9.07	0.38	11.07
Additions During The Year	-	-	-	-	-
	-	1.62	9.07	0.38	11.07
Less : Depreciation	-	0.16	1.36	0.04	1.56
WDV at end of IIIrd year	-	1.46	7.71	0.35	9.51
Additions During The Year	-	-	-	-	-
	-	1.46	7.71	0.35	9.51
Less : Depreciation	-	0.15	1.16	0.03	1.34
WDV at end of IV year	-	1.31	6.55	0.31	8.18
Additions During The Year	-	-	-	-	-
	-	1.31	6.55	0.31	8.18
Less : Depreciation	-	0.13	0.98	0.03	1.15
WDV at end of Vth year	-	1.18	5.57	0.28	7.03

**REPAYMENT SCHEDULE OF TERM LOAN**

11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
<b>IST YEAR</b>	Opening Balance						
	Ist Quarter	-	13.50	13.50	-	-	13.50
	IInd Quarter	13.50	-	13.50	0.39	-	13.50
	IIIRD Quarter	13.50	-	13.50	0.39	-	13.50
	Ivth Quarter	13.50	-	13.50	0.39	-	13.50
					1.16	-	
<b>IIIND YEAR</b>	Opening Balance						
	Ist Quarter	13.50	-	13.50	0.39	0.84	12.66
	IInd Quarter	12.66	-	12.66	0.36	0.84	11.81
	IIIRD Quarter	11.81	-	11.81	0.34	0.84	10.97
	Ivth Quarter	10.97	-	10.97	0.32	0.84	10.13
					1.41	3.38	
<b>IIIRD YEAR</b>	Opening Balance						
	Ist Quarter	10.13	-	10.13	0.29	0.84	9.28
	IInd Quarter	9.28	-	9.28	0.27	0.84	8.44
	IIIRD Quarter	8.44	-	8.44	0.24	0.84	7.59
	Ivth Quarter	7.59	-	7.59	0.22	0.84	6.75
					1.02	3.38	
<b>IVTH YEAR</b>	Opening Balance						
	Ist Quarter	6.75	-	6.75	0.19	0.84	5.91
	IInd Quarter	5.91	-	5.91	0.17	0.84	5.06
	IIIRD Quarter	5.06	-	5.06	0.15	0.84	4.22
	Ivth Quarter	4.22	-	4.22	0.12	0.84	3.38
					0.63	3.38	
<b>VTH YEAR</b>	Opening Balance						
	Ist Quarter	3.38	-	3.38	0.10	0.84	2.53
	IInd Quarter	2.53	-	2.53	0.07	0.84	1.69
	IIIRD Quarter	1.69	-	1.69	0.05	0.84	0.84
	Ivth Quarter	0.84	-	0.84	0.02	0.84	-
					0.24	3.38	



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

<b>PARTICULARS</b>	<b>IST YEAR</b>	<b>IIND YEAR</b>	<b>IIIRD YEAR</b>	<b>IVTH YEAR</b>	<b>VTH YEAR</b>
<b><u>CASH ACCRUALS</u></b>	6.43	5.91	6.03	6.52	6.91
Interest on Term Loan	1.16	1.41	1.02	0.63	0.24
Total	7.59	7.31	7.05	7.15	7.15
<b><u>REPAYMENT</u></b>					
Instalment of Term Loan	3.38	3.38	3.38	3.38	3.38
Interest on Term Loan	1.16	1.41	1.02	0.63	0.24
Total	4.54	4.78	4.39	4.01	3.62
<b>DEBT SERVICE COVERAGE RATIO</b>	<b>1.67</b>	<b>1.53</b>	<b>1.60</b>	<b>1.78</b>	<b>1.98</b>
<b>AVERAGE D.S.C.R.</b>			<b>1.71</b>		

## BREAK EVEN POINT ANALYSIS

Year	I	II	III	IV	V
<b>Net Sales &amp; Other Income</b>	119.70	135.98	146.48	156.98	167.48
Less : Op. WIP Goods	-	5.04	5.46	5.88	6.30
Add : Cl. WIP Goods	5.04	5.46	5.88	6.30	6.72
<b>Total Sales</b>	<b>124.74</b>	<b>136.40</b>	<b>146.90</b>	<b>157.40</b>	<b>167.90</b>
<b>Variable &amp; Semi Variable Exp.</b>					
Raw Material & Tax	97.20	105.30	113.40	121.50	129.60
Electricity Exp/Coal Consumption at 85%	2.92	3.17	3.41	3.65	3.90
Manufacturing Expenses 80%	1.92	3.26	3.52	3.77	4.02
Wages & Salary at 60%	6.49	7.14	7.86	8.64	9.51
Selling & administrative Expenses 80%	1.92	2.18	2.34	2.51	2.68
Intt. On Working Capital Loan	0.90	0.90	0.90	0.90	0.90
<b>Total Variable &amp; Semi Variable Exp</b>	<b>111.35</b>	<b>121.95</b>	<b>131.43</b>	<b>140.98</b>	<b>150.60</b>
<b>Contribution</b>	<b>13.39</b>	<b>14.45</b>	<b>15.47</b>	<b>16.42</b>	<b>17.29</b>
<b>Fixed &amp; Semi Fixed Expenses</b>					
Manufacturing Expenses 20%	0.48	0.82	0.88	0.94	1.00
Electricity Exp/Coal Consumption at 15%	0.52	0.56	0.60	0.64	0.69
Wages & Salary at 40%	4.33	4.76	5.24	5.76	6.34
Interest on Term Loan	1.16	1.41	1.02	0.63	0.24
Depreciation	2.11	1.82	1.56	1.34	1.15
Selling & administrative Expenses 20%	0.48	0.54	0.59	0.63	0.67
<b>Total Fixed Expenses</b>	<b>9.07</b>	<b>9.91</b>	<b>9.88</b>	<b>9.94</b>	<b>10.09</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>4.32</b>	<b>4.54</b>	<b>5.58</b>	<b>6.48</b>	<b>7.20</b>
<b>BREAK EVEN POINT</b>	<b>41%</b>	<b>45%</b>	<b>45%</b>	<b>45%</b>	<b>47%</b>
<b>BREAK EVEN SALES</b>	<b>84.50</b>	<b>93.57</b>	<b>93.87</b>	<b>95.32</b>	<b>97.96</b>

## **DISCLAIMER**

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