

PROJECT REPORT

Of

COIR BRUSH

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **COIR BRUSH**

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
 Pin: XXXXX State: XXXXX
 E-Mail : XXXXX
 Mobile XXXXX
- 5 Product and By Product : **COIR BRUSH UNIT**
- 6 Name of the project / business activity proposed : **COIR BRUSH UNIT**
- 7 Cost of Project : Rs18.00lacs
- 8 Means of Finance
- | | |
|-------------------|------------------------------|
| Term Loan | Rs.9.44 Lacs |
| KVIC Margin Money | - As per Project Eligibility |
| Own Capital | Rs.1.8 Lacs |
| Working Capital | Rs.6.76 Lacs |
- 9 Debt Service Coverage Ratio : 2.50
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 6 Months
- 12 Break Even Point : 56%
- 13 Employment : 25 Persons
- 14 Power Requirement : 12.00 HP
- 15 Major Raw materials :
- 16 Estimated Annual Sales Turnover : 67.03 Lacs
- 16 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lacs)

Particulars	Amount
Land	Rented/Owned
Building & Civil Work (1500 Sq Ft)	4.00
Plant & Machinery	6.00
Furniture & Fixtures	0.49
Pre-operative Expenses	-
Working Capital Requirement	7.51
Total	18.00

MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	1.80
Term Loan	9.44
Workign Capital Finance	6.76
Total	18.00

Beneficiary's Margin Monery (% of Project Cost)	General 10%	Special 5%
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PROJECT PROFILE FOR COIR BRUSH MAKING/

TWISTED WIRE MAT PRODUCTION UNIT



INTRODUCTION

The common varieties of coir brushes are Commode Brush, Bannister Brush, Floor Sweeping Brush, Table Cleaning Brush, Bottle Cleaning Brush, Scrubbing Brush, Foam Cleaning Brush, Boot Polishing Brush, Hair Brush and Basin Cleaning Brush.

PROCESS OF MANUFACTURE

Preparation of Coir fibre for Brushes

Bristle fibre of long staple length is preferred which are available in small bundles of 2" diameter. The bristle fibre bundles are untied and the fibres are subjected to a combing process for the removal of adhering pith and short fibres. Combing also helps to parallelize the fibre.

The combing involves drawing of the fibres through a row of steel spikes (nails) usually 8 in numbers, each about 15 cm long, spaced about 2.5 cm apart and fixed vertically on a wooden table or plank.

Manufacture of Coir Brushes

Wooden logs are sawed to sizes with the help of band saw. The resultant wood sections are cut into small sizes by circular saw. The wood sections of smaller size suitable to the type of brush are taken to the thickness planer for planning or to the wood turning lathe for turning as the case may be. After planning or turning, the wood sections are fed to the jig saw for cutting them to the required shape to suit the pattern of brushes. These wood sections are drilled with holes with the help of a sensitive drilling machine. These are then taken for tufting of coir fibre.

The combed coir fibres are cut to suitable length depending on the pile height of the brush with the help of a thistle and hammer or scissors. Small bunches of cut fibres are then pinned together so as to form individual tuft of fibres to fill in the brush holes. The tuft is made by winding the GI wire of suitable gauge (18, 20 & 22), cut into 2 cm length in hand lever shearer and bent into "U" shape and pressing the bunches of cut fiber at its central portion with the help of pliers.

The tufts of fibre are then pressed into the holes of the wood material by hammering at the bend portions of the GI wire with the help of a punch and hammer. Thus the entire holes in the wood will be filled with fibre tufts. Thereafter the top portions of the brush will be sheared by a top shearing machine or by hand using scissors.

BASIS AND PRESUMPTIONS

- The Project Profile is based on 8 working hours for 2 shifts in a day and 25 days in a month and the Break Even efficiency has been calculated on 70%, 80%, 90%, 90% and 100% capacity utilization.
- The rate of interest both for fixed asset and working capital have been taken as 11.5% p.a.

- **TECHNICAL ASPECTS**

Installed Production capacity per shift	:	800 piece
Number of Shift per day	:	2
Working days p.a	:	300 days
Capacity Utilization		
-First year	:	70%
-Second year	:	80%
-Third year	:	90%
-Fourth year	:	90%
-Fifth year	:	100%
Rate of Average Sales Realization	:	Rs. 21 per brush
Rate of Average cost of raw material	:	Rs.11 per brush
Interest on term Loan	:	11.50%
Interest on working capital	:	11.50%

Manpower requirement

Unskilled worker	:	25
Total HP required	:	12 HP

PLANT & MACHINERY

PARTICULARS	QTY.	RATE	AMOUNT IN RS.
Circular Saw 2 HP	1.00		60,000.00
Wood turning Lathe 2 HP	1.00		1,20,000.00
Stand Drilling machine	1.00		25,000.00
Top shearing machine 1 HP	1.00		40,000.00
Bench drilling machine	1.00		40,000.00
Wire twisting machine	1.00		37,000.00
Band saw 2 HP	1.00		70,000.00
Planer 2 HP (3 blade, high speed)	1.00		1,00,000.00
Jig saw 1 HP	1.00		54,000.00
Disc scanner 1 HP	1.00		29,000.00
Sander machine	1.00		25,000.00
Total			6,00,000.00

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Capital Account	1.80	1.80	1.80	1.80	1.80
Retained Profit	4.54	10.09	16.69	22.36	28.78
Term Loan	9.44	7.08	4.72	2.36	0.00
Cash Credit	6.76	6.76	6.76	6.76	6.76
Sundry Creditors	1.85	2.11	2.38	2.38	2.64
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	24.76	28.24	32.78	36.14	40.51
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	10.49	10.49	10.49	10.49	10.49
Gross Dep.	1.32	2.50	3.51	4.39	5.16
Net Fixed Assets	9.17	7.99	6.98	6.10	5.33
Current Assets					
Sundry Debtors	4.69	5.61	6.32	6.67	7.06
Stock in Hand	4.67	5.34	6.00	2.38	2.64
Cash and Bank	3.73	6.55	10.46	17.67	21.82
Deposits & Advances	2.50	2.75	3.03	3.33	3.66
TOTAL :	24.76	28.24	32.78	36.14	40.51

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PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
A) SALES					
Gross Sale	67.03	80.14	90.22	95.25	100.80
Total (A)	67.03	80.14	90.22	95.25	100.80
B) COST OF SALES					
Raw Mateiral Consumed	36.96	42.24	47.52	47.52	52.80
Electricity Expenses	3.71	4.25	4.78	4.78	5.31
Repair & Maintenance	-	0.80	0.90	0.95	1.01
Labour & Wages	16.50	18.15	19.97	21.96	24.16
Depriciation	1.32	1.17	1.02	0.88	0.77
Consumables and Other Expenses	1.34	1.60	1.80	1.91	2.02
Cost of Production	59.84	68.21	75.98	78.00	86.05
Add: Opening Stock /WIP	-	2.82	3.23	3.63	0.00
Less: Closing Stock /WIP	2.82	3.23	3.63	0.00	0.00
Cost of Sales (B)	57.02	67.81	75.58	81.62	86.05
C) GROSS PROFIT (A-B)	10.01	12.33	14.64	13.63	14.75
	15%	15%	16%	14%	15%
D) Bank Interest (Term Loan)	0.81	0.98	0.71	0.44	0.17
Bank Interest (C.C. Limit)	0.68	0.68	0.68	0.68	0.68
E) Salary to Staff	2.64	2.90	3.19	3.51	3.87
F) Selling & Adm Expenses Exp.	1.34	1.60	1.80	1.91	2.02
TOTAL (D+E)	5.47	6.17	6.39	6.54	6.73
H) NET PROFIT	4.54	6.16	8.25	7.09	8.02
I) Taxation	-	0.62	1.65	1.42	1.60
J) PROFIT (After Tax)	4.54	5.55	6.60	5.67	6.41

COMPUTATION OF MANUFACTURING OF COIR BRUSH UNIT

Items to be Manufactured

COIR BRUSH UNIT

Manufacturing Capacity per machine per day	-	400	Brushes
	-		
No. of Working Hour		8	
No of Shift per day		2	
No of curling Machines		2	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		4,80,000.00	Coir Brushes
Year		Capacity	Coir Brushes
		Utilisation	
IST YEAR		70%	3,36,000
IIND YEAR		80%	3,84,000
IIIRD YEAR		90%	4,32,000
IVTH YEAR		90%	4,32,000
VTH YEAR		100%	4,80,000

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of Raw Material	Recovery	Unit Rate of / MT	Total Cost Per Annum (100%)
Raw Material	100%	4,80,000.00	100%	11.00	52.80
Total (Rounded off in lacs)					52.80
Annual Consumption cost	(In Lacs)				52.80

Raw Material Consumed	Capacity Utilisation	Amount (Rs.)
IST YEAR	70%	36.96
IIND YEAR	80%	42.24
IIIRD YEAR	90%	47.52
IVTH YEAR	90%	47.52
VTH YEAR	100%	52.80

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	16,800	19,200	21,600	15
Production	3,36,000	3,84,000	4,32,000	4,32,000	4,80,000
	3,36,000	4,00,800	4,51,200	4,53,600	4,80,015
Less : Closing Stock	16,800	19,200	21,600	15	17
Net Sale	3,19,200	3,81,600	4,29,600	4,53,585	4,79,998
Sale Price per MT	21.00	21.00	21.00	21.00	21.00
Sale (in Lacs)	67.03	80.14	90.22	95.25	100.80

COMPUTATION OF ELECTRICITY

(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required			12	
Load Factor			0.7460	
Electricity Charges		per unit	8.00	
Total Working Days			300	
Electricity Charges (8 Hrs Per day)				1,71,878.40
Add : Minimim Charges (@ 10%)				
(B) D.G. SET				
No. of Working Days			300	days
No of Working Hours			2	Hour per day
Total no of Hour			600	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			4,800	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			3.12	
Add : Lube Cost @15%			0.47	
Total			3.59	
Total cost of Power & Fuel at 100%				5.31
Year		Capacity		Amount
				(in Lacs)
IST YEAR		70%		3.71
IIND YEAR		80%		4.25
IIIRD YEAR		90%		4.78
IVTH YEAR		90%		4.78
VTH YEAR		100%		5.31

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Finished Goods					
(15 Days requirement)	2.82	3.23	3.63	0.00	0.00
Raw Material					
(15 Days requirement)	1.85	2.11	2.38	2.38	2.64
Closing Stock	4.67	5.34	6.00	2.38	2.64

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars			Total
			Amount
Stock in Hand			4.67
Sundry Debtors			4.69
		Total	9.36
Sundry Creditors			1.85
Working Capital Requirement			7.51
Margin			0.75
Working Capital Finance			6.76

BREAK UP OF LABOUR

Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Skilled Worker		-	-	-
Unskilled Worker		5,000.00	25	1,25,000.00
				1,25,000.00
Add: 10% Fringe Benefit				12,500.00
Total Labour Cost Per Month				1,37,500.00
Total Labour Cost for the year (In Rs. Lakhs)				16.50

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/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased	-	-	-	-
Addition	-	4.00	6.00	0.49	10.49
	-	4.00	6.00	0.49	10.49
Less : Depreciation	-	0.40	0.90	0.02	1.32
WDV at end of Ist year	-	3.60	5.10	0.47	9.17
Additions During The Year	-	-	-	-	-
	-	3.60	5.10	0.47	9.17
Less : Depreciation	-	0.36	0.77	0.05	1.17
WDV at end of IIInd Year	-	3.24	4.34	0.42	7.99
Additions During The Year	-	-	-	-	-
	-	3.24	4.34	0.42	7.99
Less : Depreciation	-	0.32	0.65	0.04	1.02
WDV at end of IIIrd year	-	2.92	3.68	0.38	6.98
Additions During The Year	-	-	-	-	-
	-	2.92	3.68	0.38	6.98
Less : Depreciation	-	0.29	0.55	0.04	0.88
WDV at end of IV year	-	2.62	3.13	0.34	6.10
Additions During The Year	-	-	-	-	-
	-	2.62	3.13	0.34	6.10
Less : Depreciation	-	0.26	0.47	0.03	0.77
WDV at end of Vth year	-	2.36	2.66	0.31	5.33

REPAYMENT SCHEDULE OF TERM LOAN

11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
IST YEAR	Opening Balance						
	Ist Quarter	-	9.44	9.44	-	-	9.44
	IInd Quarter	9.44	-	9.44	0.27	-	9.44
	IIIRD Quarter	9.44	-	9.44	0.27	-	9.44
	Ivth Quarter	9.44	-	9.44	0.27	-	9.44
						0.81	-
IIIND YEAR	Opening Balance						
	Ist Quarter	9.44	-	9.44	0.27	0.59	8.85
	IInd Quarter	8.85	-	8.85	0.25	0.59	8.26
	IIIRD Quarter	8.26	-	8.26	0.24	0.59	7.67
	Ivth Quarter	7.67	-	7.67	0.22	0.59	7.08
						0.98	2.36
IIIRD YEAR	Opening Balance						
	Ist Quarter	7.08	-	7.08	0.20	0.59	6.49
	IInd Quarter	6.49	-	6.49	0.19	0.59	5.90
	IIIRD Quarter	5.90	-	5.90	0.17	0.59	5.31
	Ivth Quarter	5.31	-	5.31	0.15	0.59	4.72
						0.71	2.36
IVTH YEAR	Opening Balance						
	Ist Quarter	4.72	-	4.72	0.14	0.59	4.13
	IInd Quarter	4.13	-	4.13	0.12	0.59	3.54
	IIIRD Quarter	3.54	-	3.54	0.10	0.59	2.95
	Ivth Quarter	2.95	-	2.95	0.08	0.59	2.36
						0.44	2.36
VTH YEAR	Opening Balance						
	Ist Quarter	2.36	-	2.36	0.07	0.59	1.77
	IInd Quarter	1.77	-	1.77	0.05	0.59	1.18
	IIIRD Quarter	1.18	-	1.18	0.03	0.59	0.59
	Ivth Quarter	0.59	-	0.59	0.02	0.59	0.00
						0.17	2.36

CALCULATION OF D.S.C.R

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>CASH ACCRUALS</u>	5.87	6.72	7.61	6.56	7.18
Interest on Term Loan	0.81	0.98	0.71	0.44	0.17
Total	6.68	7.70	8.33	7.00	7.35
<u>REPAYMENT</u>					
Instalment of Term Loan	2.36	2.36	2.36	2.36	2.36
Interest on Term Loan	0.81	0.98	0.71	0.44	0.17
Total	3.17	3.34	3.07	2.80	2.53
DEBT SERVICE COVERAGE RATIO	2.10	2.30	2.71	2.50	2.91
AVERAGE D.S.C.R.			2.50		

BREAK EVEN POINT ANALYSIS

Year	I	II	III	IV	V
Net Sales & Other Income	67.03	80.14	90.22	95.25	100.80
Less : Op. WIP Goods	-	2.82	3.23	3.63	0.00
Add : Cl. WIP Goods	2.82	3.23	3.63	0.00	0.00
Total Sales	69.85	80.54	90.62	91.63	100.80
Variable & Semi Variable Exp.					
Raw Material & Tax	36.96	42.24	47.52	47.52	52.80
Electricity Exp/Coal Consumption at 85%	3.16	3.61	4.06	4.06	4.51
Manufacturing Expenses 80%	1.07	1.92	2.17	2.29	2.42
Wages & Salary at 60%	11.48	12.63	13.90	15.29	16.81
Selling & administrative Expenses 80%	1.07	1.28	1.44	1.52	1.61
Intt. On Working Capital Loan	0.68	0.68	0.68	0.68	0.68
Total Variable & Semi Variable Exp	54.42	62.36	69.76	71.35	78.83
Contribution	15.43	18.18	20.86	20.28	21.97
Fixed & Semi Fixed Expenses					
Manufacturing Expenses 20%	0.27	0.48	0.54	0.57	0.60
Electricity Exp/Coal Consumption at 15%	0.56	0.64	0.72	0.72	0.80
Wages & Salary at 40%	7.66	8.42	9.26	10.19	11.21
Interest on Term Loan	0.81	0.98	0.71	0.44	0.17
Depreciation	1.32	1.17	1.02	0.88	0.77
Selling & administrative Expenses 20%	0.27	0.32	0.36	0.38	0.40
Total Fixed Expenses	10.89	12.02	12.61	13.18	13.95
Capacity Utilization	70%	80%	90%	90%	100%
OPERATING PROFIT	4.54	6.16	8.25	7.09	8.02
BREAK EVEN POINT	49%	53%	54%	59%	63%
BREAK EVEN SALES	49.29	53.24	54.79	59.57	64.01

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