

PROJECT REPORT

Of

COIR PITH BLOCK

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **COIR PITH BLOCK**

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.]

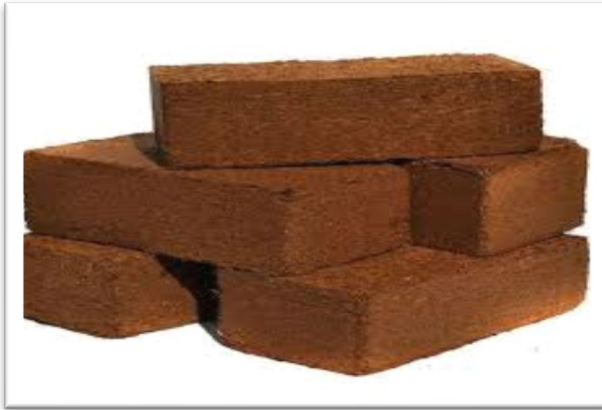


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PROJECT PROFILE FOR COIR PITH BLOCK MAKING UNIT



INTRODUCTION

Coir pith or dust is a biomass residue generated during the extraction of coir fibre from coconut husk and is a byproduct of the coir industry. The coir pith is a very light and compressible material. It is highly hygroscopic and holds water of 7 to 8 fold by weight. Coir pith has an ability to be compressed into a wide range of added value products such as seed cells, propagation modules all the way.

The major properties of coir pith are:

- High water holding capacity, i.e., 6-8 times than its weight.
- Excellent moisture retention even after drying.
- Slow degradation due to high lignocellulose bonding.
- High porosity, stores and releases nutrients over extended periods of time.
- Greater physical resiliency that with stands compression better.
- Excellent aeration / oxygenation providing enhanced root penetration.
- Acceptable Electrical Conductivity (EC), pH and Cation Exchange Capacity CEC).
- 100% degradable, organic and a renewable resource.

It is more suitable for growing media (in agriculture). Most of the Green houses are using this media for various cultivation like flowers, fruits, vegetables, ornamental plants & medicinal plants etc. throughout the world.

PROCESS OF MANUFACTURE

Coir pith block is specially designed for commercial nurseries and greenhouses. This soil conditioner is suitable for all types of garden plants, lawns, flowers, orchids and vegetables in pots or on the ground. The coir pith is compressed into very small packs of 650 gm, shrink wrapped which is most suitable to the hobby market and home garden owners.

Coir pith Block Specifications

Available Sizes- 5 kg and 650 gm

Parameters	5 Kg Block	650 gm Block
Weight	5 Kg +/- 0.3 Kg	650gm +/- 30gm
Size	30 x 30 x 13 cm	20 x 10 x 5 cm
Compression ratio	5:1	8:1
Moisture content	< 20%	< 20%
Electrical Conductivity	< 0.5 milliohms/cm	< 0.5 milliohms/cm
Expanded Volume	13 to 14 L/Kg	8 to 9 L/Kg

BASIS AND PRESUMPTIONS

- The Project Profile is based on 8 working hours in a day and 175 days in a year and the Break Even efficiency has been calculated at 70%, 75%, 80%, 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/machine	:	6.0 per shift
Number of machine	:	1
Number of Shift per day	:	1
Working days p.a	:	175 days
Yield wastage	:	40%
Capacity Utilization		
-First year	:	70%
-Second year	:	75%
-Third year	:	80%
-Fourth year	:	90%
-Fifth year	:	100%
Rate of Average Sales Realization	:	Rs. 12500 /-per ton
Rate of Average cost of raw material	:	Rs.5500/-per ton
Interest on term Loan	:	11.50%
Interest on working capital	:	11.50%
Manpower requirement		
Supervisor	:	1
Semi/unskilled worker	:	10
Total HP required	:	20 HP

Note:All the machineries and equipments mentioned in the Project profile are of indigenous make and are of medium price.

PLANT & MACHINERY

PARTICULARS	QTY.	RATE	AMOUNT IN RS.
Coir pith Compacting machine with electrical (5kg Block) 20 HP	1.00	13,00,000.00	13,00,000.00
Screener - 2 HP (8 feet length)	1.00	1,20,000.00	1,20,000.00
Other accessories	1.00	1,67,000.00	1,67,000.00
Sub- Total			15,87,000.00

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Capital Account	2.50	2.50	2.50	2.50	2.50
Retained Profit	14.58	30.55	48.07	67.01	86.31
Term Loan	17.36	13.02	8.68	4.34 -	0.01
Cash Credit	5.14	5.14	5.14	5.14	5.14
Sundry Creditors	2.13	2.43	2.74	2.89	3.04
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	42.07	54.04	67.56	82.36	97.51
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	19.29	19.29	19.29	19.29	19.29
Gross Dep.	2.70	5.03	7.03	8.75	10.22
Net Fixed Assets	16.59	14.26	12.26	10.54	9.07
Current Assets					
Sundry Debtors	2.04	2.43	2.74	3.00	3.06
Stock in Hand	5.80	6.63	7.46	4.39	4.74
Cash and Bank	15.15	27.97	42.08	61.10	76.98
Deposits & Advances	2.50	2.75	3.03	3.33	3.66
TOTAL :	42.07	54.04	67.56	82.36	97.51
	-	-	-	-	-

PROJECTED CASH FLOW STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Share Capital	2.50	-			
Reserve & Surplus	14.58	17.74	21.89	23.68	24.13
Depriciation & Exp. W/off	2.70	2.33	2.00	1.71	1.47
Increase in Cash Credit	5.14	-	-	-	-
Increase In Term Loan	17.36	-	-	-	-
Increase in Creditors	2.13	0.30	0.30	0.15	0.15
Increase in Provisions	0.36	0.04	0.04	0.04	0.05
TOTAL :	44.77	20.42	24.24	25.59	25.80
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	19.29	-	-	-	-
Increase in Stock	5.80	0.83	0.83	3.07	0.35
Increase in Debtors	2.04	0.40	0.31	0.26	0.05
Increase in Deposits & Adv	2.50	0.25	0.28	0.30	0.33
Repayment of Term Loan	-	4.34	4.34	4.34	4.35
Taxation	-	1.77	4.38	4.74	4.83
TOTAL :	29.63	7.59	10.13	6.57	9.91
Opening Cash & Bank Balance	-	15.15	27.97	42.08	61.10
Add : Surplus	15.15	12.82	14.11	19.02	15.88
Closing Cash & Bank Balance	15.15	27.97	42.08	61.10	76.98

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>A) SALES</u>					
Gross Sale	87.28	104.34	117.47	128.72	131.00
Total (A)	87.28	104.34	117.47	128.72	131.00
<u>B) COST OF SALES</u>					
Raw Mateiral Consumed	42.55	48.63	54.71	57.75	60.79
Electricity Expenses	4.52	5.16	5.81	6.13	6.45
Repair & Maintenance	-	1.04	1.17	1.29	1.31
Labour & Wages	15.84	17.42	19.17	21.08	23.19
Depriciation	2.70	2.33	2.00	1.71	1.47
Consumables and Other Expenses	1.75	2.09	2.35	2.57	2.62
Cost of Production	67.36	76.68	85.21	90.54	95.83
Add: Opening Stock /WIP	-	3.68	4.20	4.73	1.50
Less: Closing Stock /WIP	3.68	4.20	4.73	1.50	1.70
Cost of Sales (B)	63.68	76.16	84.68	93.76	95.63
C) GROSS PROFIT (A-B)	23.60	28.19	32.79	34.96	35.37
	27%	27%	28%	27%	27%
D) Bank Interest (Term Loan)	1.50	1.81	1.31	0.81	0.31
Bank Interest (C.C. Limit)	0.51	0.51	0.51	0.51	0.51
E) Salary to Staff	2.64	2.90	3.19	3.51	3.87
F) Selling & Adm Expenses Exp.	4.36	5.22	5.87	6.44	6.55
TOTAL (D+E)	9.02	10.44	10.89	11.27	11.24
H) NET PROFIT	14.58	17.74	21.89	23.68	24.13
I) Taxation	-	1.77	4.38	4.74	4.83
J) PROFIT (After Tax)	14.58	15.97	17.52	18.95	19.30

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	37	42	47	15
Production	735	840	945	998	1,050
	735	877	987	1,045	1,065
Less : Closing Stock	37	42	47	15	17
Net Sale	698	835	940	1,030	1,048
Sale Price per MT	12,500.00	12,500.00	12,500.00	12,500.00	12,500.00
Sale (in Lacs)	87.28	104.34	117.47	128.72	131.00

COMPUTATION OF ELECTRICITY

(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	20	
Load Factor			0.7460	
Electricity Charges		per unit	8.00	
Total Working Days			300	
Electricity Charges (8 Hrs Per day)				2,86,464.00
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%				6.45
Year		Capacity		Amount (in Lacs)
IST YEAR		70%		4.52
IIND YEAR		80%		5.16
IIIRD YEAR		90%		5.81
IVTH YEAR		95%		6.13
VTH YEAR		100%		6.45

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Finished Goods					
(15 Days requirement)	3.68	4.20	4.73	1.50	1.70
Raw Material					
(15 Days requirement)	2.13	2.43	2.74	2.89	3.04
Closing Stock	5.80	6.63	7.46	4.39	4.74

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars			Total
			Amount
Stock in Hand			5.80
Sundry Debtors			2.04
		Total	7.84
Sundry Creditors			2.13
Working Capital Requirement			5.71
Margin			0.57
Working Capital Finance			5.14

BREAK UP OF LABOUR

Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Skilled Worker		10,000.00	4	40,000.00
Unskilled Worker		5,000.00	16	80,000.00
				1,20,000.00
Add: 10% Fringe Benefit				12,000.00
Total Labour Cost Per Month				1,32,000.00
Total Labour Cost for the year (In Rs. Lakhs)				15.84

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	-	3.00	15.87	0.42	19.29
	-	3.00	15.87	0.42	19.29
Less : Depreciation	-	0.30	2.38	0.02	2.70
WDV at end of Ist year	-	2.70	13.49	0.40	16.59
Additions During The Year	-	-	-	-	-
	-	2.70	13.49	0.40	16.59
Less : Depreciation	-	0.27	2.02	0.04	2.33
WDV at end of IIInd Year	-	2.43	11.47	0.36	14.26
Additions During The Year	-	-	-	-	-
	-	2.43	11.47	0.36	14.26
Less : Depreciation	-	0.24	1.72	0.04	2.00
WDV at end of IIIrd year	-	2.19	9.75	0.32	12.26
Additions During The Year	-	-	-	-	-
	-	2.19	9.75	0.32	12.26
Less : Depreciation	-	0.22	1.46	0.03	1.71
WDV at end of IV year	-	1.97	8.28	0.29	10.54
Additions During The Year	-	-	-	-	-
	-	1.97	8.28	0.29	10.54
Less : Depreciation	-	0.20	1.24	0.03	1.47
WDV at end of Vth year	-	1.77	7.04	0.26	9.07

REPAYMENT SCHEDULE OF TERM LOAN

11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
IST YEAR	Opening Balance						
	Ist Quarter	-	17.36	17.36	-	-	17.36
	Iind Quarter	17.36	-	17.36	0.50	-	17.36
	IIIrd Quarter	17.36	-	17.36	0.50	-	17.36
	Ivth Quarter	17.36	-	17.36	0.50	-	17.36
					1.50	-	
IIND YEAR	Opening Balance						
	Ist Quarter	17.36	-	17.36	0.50	1.09	16.28
	Iind Quarter	16.28	-	16.28	0.47	1.09	15.19
	IIIrd Quarter	15.19	-	15.19	0.44	1.09	14.11
	Ivth Quarter	14.11		14.11	0.41	1.09	13.02
					1.81	4.34	
IIIRD YEAR	Opening Balance						
	Ist Quarter	13.02	-	13.02	0.37	1.09	11.94
	Iind Quarter	11.94	-	11.94	0.34	1.09	10.85
	IIIrd Quarter	10.85	-	10.85	0.31	1.09	9.77
	Ivth Quarter	9.77		9.77	0.28	1.09	8.68
					1.31	4.34	
IVTH YEAR	Opening Balance						
	Ist Quarter	8.68	-	8.68	0.25	1.09	7.60
	Iind Quarter	7.60	-	7.60	0.22	1.09	6.51
	IIIrd Quarter	6.51	-	6.51	0.19	1.09	5.43
	Ivth Quarter	5.43		5.43	0.16	1.09	4.34
					0.81	4.34	
VTH YEAR	Opening Balance						
	Ist Quarter	4.34	-	4.34	0.12	1.09	3.26
	Iind Quarter	3.26	-	3.26	0.09	1.09	2.17
	IIIrd Quarter	2.17	-	2.17	0.06	1.09	1.08
	Ivth Quarter	1.08		1.08	0.03	1.09	-
					0.31	4.35	

CALCULATION OF D.S.C.R

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>CASH ACCRUALS</u>	17.29	18.30	19.51	20.66	20.77
Interest on Term Loan	1.50	1.81	1.31	0.81	0.31
Total	18.78	20.11	20.82	21.47	21.08
<u>REPAYMENT</u>					
Instalment of Term Loan	4.34	4.34	4.34	4.35	4.35
Interest on Term Loan	1.50	1.81	1.31	0.81	0.31
Total	5.84	6.15	5.65	5.16	4.66
DEBT SERVICE COVERAGE RATIO	3.22	3.27	3.69	4.16	4.52
AVERAGE D.S.C.R.			3.77		

BREAK EVEN POINT ANALYSIS

Year	I	II	III	IV	V
Net Sales & Other Income	87.28	104.34	117.47	128.72	131.00
Less : Op. WIP Goods	-	3.68	4.20	4.73	1.50
Add : Cl. WIP Goods	3.68	4.20	4.73	1.50	1.70
Total Sales	90.96	104.87	117.99	125.49	131.20
Variable & Semi Variable Exp.					
Raw Material & Tax	42.55	48.63	54.71	57.75	60.79
Electricity Exp/Coal Consumption at 85%	3.84	4.39	4.94	5.21	5.48
Manufacturing Expenses 80%	1.40	2.50	2.82	3.09	3.14
Wages & Salary at 60%	11.09	12.20	13.42	14.76	16.23
Selling & administrative Expenses 80%	3.49	4.17	4.70	5.15	5.24
Intt. On Working Capital Loan	0.51	0.51	0.51	0.51	0.51
Total Variable & Semi Variable Exp	62.88	72.41	81.10	86.47	91.41
Contribution	28.07	32.46	36.90	39.02	39.79
Fixed & Semi Fixed Expenses					
Manufacturing Expenses 20%	0.35	0.63	0.70	0.77	0.79
Electricity Exp/Coal Consumption at 15%	0.68	0.77	0.87	0.92	0.97
Wages & Salary at 40%	7.39	8.13	8.94	9.84	10.82
Interest on Term Loan	1.50	1.81	1.31	0.81	0.31
Depreciation	2.70	2.33	2.00	1.71	1.47
Selling & administrative Expenses 20%	0.87	1.04	1.17	1.29	1.31
Total Fixed Expenses	13.49	14.72	15.00	15.34	15.67
Capacity Utilization	70%	80%	90%	90%	100%
OPERATING PROFIT	14.58	17.74	21.89	23.68	24.13
BREAK EVEN POINT	34%	36%	37%	35%	39%
BREAK EVEN SALES	43.71	47.55	47.98	49.34	51.65

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