

PROJECT PROFILE FOR COIR FIBRE EXTRACTION UNIT

PRODUCT	:	COIR FIBRE
PRODUCTION CAPACITY (P.A)		
(100% CAPACITY)	:	750 TONS
VALUE	:	RS.210.00 LAKHS
MONTH & YEAR OF PREPARATION	:	JUNE 2018
PREPARED BY	:	COIR BOARD MINISTRY OF MSME, GOVT OF INDIA

● **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 1st half year (considering the time taken for margin money to be placed as FDR)
- The Margin money is deducted from the 4th 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/-

- Total** : **Rs. 2500000/-**

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
Total			1568000.00

ii) Means of Finance

- Promoters Capital 5% : Rs. 125000/-
- Bank Term loan 95% : Rs.1870000/-
- WC Loan from Bank 95% : Rs. 505000/-

- Total** : **Rs.2500000/-**

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
Annual Sales Realization	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
Total		142.14	151.43	161.52	171.77	190.70
Gross Profit		15.36	16.57	16.98	17.23	19.30
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
Total		7.70	8.05	7.89	6.88	6.93
Net Surplus		7.66	8.51	9.09	10.35	12.37

ESTIMATION OF BREAK EVEN POINT

Rs in Lakhs

Particulars	1	2	3	4	5
	75%	80%	85%	90%	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

