



Detailed Project Report ***on*** ***Tree Borne Oil (Neem)***

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Tree Borne Oil (Neem)
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	500 kg/day
4	Key components of the project	Oil extraction, Packaging and Selling
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Neem Oil
7	Total Project Cost	Rs. 54,51,500
8	Fixed Capital Cost	Rs. 43,41,500
9	Working/Recurring capital	Rs. 11,10,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 47,39,850
12	Promoter Contribution (min 10% of the project cost in case of bank loan)	Rs. 7,11,650
13	Assumed Rate of Interest	10%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators: 1. Average Annual Net Profit 2. Debt Service Coverage Ratio (DSCR) 3. Internal Rate of Return 4. Break Even Point (BEP)/Year	Rs. 16,45,227
		2.26
		26.53%
		3 Years and 5 Month
17	Estimated employment to be generated (nos.)	11

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity.



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/: FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by:

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Neem oil is a non - edible oil pressed from the fruits and seeds of the neem (*Azadirachta indica*), an evergreen tree which is endemic to the Indian subcontinent and has been introduced to many other areas in the tropics. It is the most important of the commercially available products of neem for organic farming and medicines.

Qualities of Neem Oil

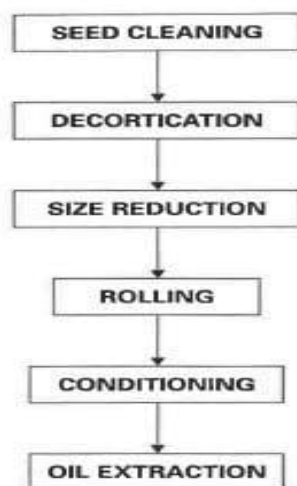
1. Neem Oil works as a natural substitute for anti-aging products and as a protective agent against skin damage caused by UV rays.
2. It deeply penetrates skin to restore moisture, enhance elasticity, smooth wrinkles, stimulate collagen production, and heal cracks caused by dryness.
3. It reduces skin redness and brings out a healthy glow.
4. Its ability to unclog pores and follicles while soothing irritated skin without leaving a greasy residue makes Neem Carrier Oil an effective agent for acne-prone skin.
5. It prevents future breakouts by eliminating acne-causing bacteria, purging impurities, tightening the pores, and evening out skin tone. By softening the skin to make it supple, it facilitates the healing of scars and reduces their look and feel.
6. Used medicinally, Neem Carrier Oil contains components that prevent and eliminate fungal infections.

Raw Material, Manufacturing process & Source of Technology

Neem seeds are used as basic raw material for neem oil extraction plant. Neem is a natural herb that comes from the neem tree, other names for which include *Azadirachta indica* and Indian lilac. The extract comes from the seeds of the tree and has many different traditional uses. Neem is known for its pesticidal and insecticidal properties, but people also use it in hair and dental products.

Neem oil can be obtained through pressing (crushing) of the seed kernel through cold pressing or through a process incorporating temperature controls between 40°C and 50°C. Hence, it is also called as cold pressed neem oil. Neem seed oil can also be obtained by solvent extraction of the neem seed, fruit, oil, cake or kernel. This solvent-extracted neem oil is of a lower quality as compared to the standard cold pressed neem oil. Neem cake is a by-product obtained in the solvent extraction process for neem oil. Normally neem oil is extracted at 20%-25% of raw material but it gives a by product known as Neem cake, which also have market value (because of its use in agricultural farming).

Process Flow





Market Potential

The global neem extracts market demand was 503.5 USD million in 2022 and is projected to grow at a CAGR of 14.8% from 2023 to 2028. In 2022, the market was growing at a steady rate and with the rising adoption of strategies by key players, the market is expected to rise over the projected horizon.

Neem oil market is expected to witness growth on account of rising demand from various end-use industries including personal care, pharmaceutical, animal feed and agriculture. Furthermore, increasing consumer awareness about health benefits of neem, particularly in developed regions, is anticipated to boost the market growth over the forecast period.

There is immense scope in the market for neem oils, and the entire host of market players is expected to employ integral strategies in order to attain a greater market share.

Usage of chemical pesticides and fertilizers in farming results in decreasing the quality of the produce and has harmful effects on the ecology. This makes neem-based fertilizer (by product received from neem oil extraction) and pesticide ideal for farming.

Key Market Segmentation:

Breakup by Packaging Type:

- Pouches
- Jars
- Cans
- Bottles

Breakup by Packaging Material:

- Metal
- Plastic
- Paper

Breakup by Pack Size:

- Less than 100 ml
- 100 ml
- 100 ml - 500 ml
- 500 ml - 1000 ml
- 1 Litres and Above

Breakup by Application:

- Household
- Medicinal

Breakup by Distribution Channel:

- Direct/Institutional Sales
- Supermarkets and Hypermarkets
- Convenience Stores
- Online



3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	3	%
3	Collection from Debtors (First Year)	15	Days
4	Collection from Debtors	15	Days
5	Payable to Creditors	15	Days
6	Drawing By Promoter	40	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	10	%
9	Rate of Interest on WC	10	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	15	Days
12	Finished Goods in stock (on sales)	5	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	25	%
15	Working Capital Requirement	1	Months
16	Working Capital Utilisation	100	%
17	No. of working days	290	Days

4. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total
A	Land				
1	Land Development (completed already)	Sq. ft	5000	0.70	3,500
2	Fencing (Barbed wire/Green Fencing)	ft	300	60.00	18,000
	Sub Total				21,500
B	Civil Construction				
1	Built-up manufacturing area	Sq. ft	1500	400.00	6,00,000
2	RM and FG Store	Sq. ft	1500	400.00	6,00,000
3	Labour shed	Sq. ft	200	350.00	70,000
4	Office	Sq. ft	200	850.00	1,70,000
	Sub Total				14,40,000
C	Water Supply				
1	Water Supply with overhead tank and pump			LS	2,50,000
D	Electrification				
1	Electrical Installation with transformer and DG Unit				5,00,000
Plant and Machinery					
Sl. No.	Particulars	Specification	Qty	Unit Price	total
1	Oil Expeller with Single Steel gear		1	4,40,000	4,40,000
2	Filter press frame		1	1,50,000	1,50,000
3	Oil Storage Tank		2	20,000	40,000
4	Filling and capping machine - 5 lit to 50 lot		1	8,00,000	8,00,000
5	Boiler		1	5,00,000	5,00,000
6	Cooking Kettle		1	1,50,000	1,50,000



	Total Plant and Machinery Cost				20,80,000
E	Misc. Exp.				
1	Insurance				30,000
2	DPR Cost				12,880
3	Other misc. exp				7,120
	Total Miscellaneous Expenditure				42,880

4.2. Project Variable Expenses

Details of raw material (per annum @ 100%)						
Sl. No.	Items	Unit	Rate/Unit (in Rs)	Qty/day	Qty/annum (kg)	Total (Rs)
1	Neem Seeds	kg	75.00	500	1,45,000	1,08,75,000
2	Packing material 1 lit. plastic jar	Nos	10.00	37	10,658	1,06,575
	Total					1,09,81,575

Details of salary and other benefits				
Sl. No.	Type of workers	No. of worker	Salary per month/head (Rs)	Total salary per annum (Rs)
1	Manager	1	20,000	2,40,000
2	Purchase and store	1	15,000	1,80,000
3	Skilled Worker	3	12,000	4,32,000
4	Unskilled Worker	6	8,000	5,76,000
	Grand Total	11	55,000	14,28,000

4.3. Details of Sales

Details of sales (Per annum @100% capacity)						
Sl. No.	Type of products	Unit	Rate/Unit (Rs)	Quantity per day	Quantity per annum	Total (Rs)
1	Neem Oil	Litres	300.00	175	50,750	1,52,25,000
2	Neem Oil Cake	kg	20.00	275	79,750	15,95,000
	Total			450		1,68,20,000



4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	10,49,959	13,16,168	16,15,405	19,97,156	24,42,251	28,00,193
Add: Introduced	7,11,650						
Add: Profit	5,65,309	11,45,209	13,76,237	17,14,751	20,74,095	22,24,942	24,16,043
Less: Drawing	2,27,000	8,79,000	10,77,000	13,33,000	16,29,000	18,67,000	20,87,000
Closing Capital	10,49,959	13,16,168	16,15,405	19,97,156	24,42,251	28,00,193	31,29,236
Term Loan from Bank	35,01,414	30,52,972	25,57,572	20,10,297	14,05,715	7,37,826	-
Current Liabilities							
Cash Credit from Bank	8,32,500	8,32,500	8,32,500	8,32,500	8,32,500	8,32,500	8,32,500
Sundry Creditors	3,29,447	4,61,250	5,14,600	5,72,150	6,34,150	6,65,900	6,99,200
Expenses Payable	2,00,800	2,37,300	2,56,200	2,76,300	2,97,800	3,12,700	3,28,500
Current Provisions	31,952	2,22,947	3,21,959	4,67,036	6,21,041	6,85,689	7,67,590
Total Current Liabilities	13,94,699	17,53,997	19,25,259	21,47,986	23,85,491	24,96,789	26,27,790
Total Liabilities	59,46,073	61,23,137	60,98,235	61,55,439	62,33,457	60,34,809	57,57,025
Assets							
Fixed Assets							
Less Depreciation	42,91,500	42,91,500	42,91,500	42,91,500	42,91,500	42,91,500	42,91,500
Net Fixed Assets	5,56,000	10,37,050	14,53,548	18,14,415	21,27,312	23,98,819	26,34,589
Current Assets	37,35,500	32,54,450	28,37,953	24,77,085	21,64,188	18,92,681	16,56,911
Sundry Debtors							
Inventories	5,04,600	7,06,500	7,88,200	8,76,300	9,71,200	10,19,800	10,70,800
Cash and Bank Balance	5,14,900	6,51,200	7,76,003	8,63,676	9,58,255	10,23,797	10,75,055
Other Current Assets	1,51,400	2,12,000	2,36,500	2,62,900	2,91,400	3,06,000	3,21,300
Total Current Assets	10,39,673	12,98,987	14,59,579	16,75,478	18,48,414	17,92,531	16,32,960
Total Assets	22,10,573	28,68,687	32,60,283	36,78,354	40,69,270	41,42,128	41,00,115
Total Assets	59,46,073	61,23,137	60,98,235	61,55,439	62,33,457	60,34,809	57,57,025



4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	1,69,000.00	3,87,000	5,56,000
	2	1,52,100.00	3,28,950	4,81,050
	3	1,36,890.00	2,79,608	4,16,498
	4	1,23,201.00	2,37,666	3,60,867
	5	1,10,880.90	2,02,016	3,12,897
	6	99,792.81	1,71,714	2,71,507
	7	89,813.53	1,45,957	2,35,770

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	60	80	85	90	95	95	95
Revenue							
Sales	1,00,92,000	1,41,29,000	1,57,63,000	1,75,25,000	1,94,24,000	2,03,96,000	2,14,16,000
Opening Stock of Finished Goods	-	(1,74,000)	(2,43,603)	(2,71,776)	(3,02,155)	(3,34,897)	(3,51,655)
Closing Stock of Finished Goods	1,74,000	2,43,603	2,71,776	3,02,155	3,34,897	3,51,655	3,69,241
Total Income (A)	1,02,66,000	1,41,98,603	1,57,91,172	1,75,55,379	1,94,56,741	2,04,12,759	2,14,33,586
Expenditure							
Opening stock of Raw Material	-	3,40,900	4,77,200	5,32,400	5,91,900	6,56,100	6,88,900
Purchase (Net) of Material	65,88,945	92,25,000	1,02,92,000	1,14,43,000	1,26,83,000	1,33,18,000	1,39,84,000
Closing Stock of Raw material	3,40,900	4,77,200	5,32,400	5,91,900	6,56,100	6,88,900	7,23,400
Raw Material Consumption	62,48,045	90,88,700	1,02,36,800	1,13,83,500	1,26,18,800	1,32,85,200	1,39,49,500
Repair & Maintenance - Machinery (@5% of Cost)	42,700	44,900	47,200	49,600	52,100	54,800	57,600
Electricity expense	8,07,360	11,30,400	12,61,100	14,02,000	15,54,000	16,31,700	17,14,700
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500
Administrative salaries and wages	14,28,000	14,99,400	15,74,400	16,53,200	17,35,900	18,22,700	19,13,900
Other Misc. Expenses [@2% of sales]	1,00,920	1,41,290	1,57,630	1,75,250	1,94,240	2,03,960	2,14,160



Total Cost	86,57,025	1,19,36,190	1,33,10,230	1,46,98,350	1,61,91,640	1,70,36,860	1,78,90,360
Profit Before Depreciation, Interest and Tax	16,08,975	22,62,413	24,80,942	28,57,029	32,65,101	33,75,899	35,43,226
Depreciation	5,56,000	4,81,050	4,16,498	3,60,867	3,12,897	2,71,507	2,35,770
Profit Before Interest and Tax	10,52,975	17,81,363	20,64,445	24,96,162	29,52,204	31,04,392	33,07,456
Interest on Term Loan	3,72,464	3,29,957	2,83,000	2,31,125	1,73,818	1,10,510	40,574
Interest on Working Capital Loan	83,250	83,250	83,250	83,250	83,250	83,250	83,250
Total Interest Paid	4,55,714	4,13,207	3,66,250	3,14,375	2,57,068	1,93,760	1,23,824
Profit Before Tax	5,97,261	13,68,156	16,98,195	21,81,787	26,95,136	29,10,632	31,83,632
Income Tax	31,952	2,22,947	3,21,959	4,67,036	6,21,041	6,85,689	7,67,590
Profit after Tax	5,65,309	11,45,209	13,76,237	17,14,751	20,74,095	22,24,942	24,16,043

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	1,51,400	2,12,000	2,36,500	2,62,900	2,91,400	3,06,000
Cash Inflow during the Period	65,02,073	19,85,557	19,63,996	22,98,346	26,24,497	26,63,631	29,42,385
Cash Outflow during the Period	63,50,673	19,24,957	19,39,496	22,71,946	25,95,997	26,49,031	29,27,085
Closing Cash & Bank Balance	1,51,400	2,12,000	2,36,500	2,62,900	2,91,400	3,06,000	3,21,300

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	3,72,464.10	7,78,399.64	4,05,935.53
2	3,29,957.35	7,78,399.64	4,48,442.29
3	2,82,999.58	7,78,399.64	4,95,400.05
4	2,31,124.72	7,78,399.64	5,47,274.91
5	1,73,817.89	7,78,399.64	6,04,581.75
6	1,10,510.28	7,78,399.64	6,67,889.36
7	40,573.53	7,78,399.64	7,37,826.10
Total	15,41,447.46	54,48,797.46	39,07,350.00



4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	1,00,92,000	1,41,29,000	1,57,63,000	1,75,25,000	1,94,24,000	2,03,96,000	2,14,16,000
Net Profit	5,65,309	11,45,209	13,76,237	17,14,751	20,74,095	22,24,942	24,16,043
Interest Paid	4,55,714	4,13,207	3,66,250	3,14,375	2,57,068	1,93,760	1,23,824
Cash Accruals (a)	10,21,023	15,58,417	17,42,486	20,29,126	23,31,163	24,18,702	25,39,866
Principal	4,05,936	4,48,442	4,95,400	5,47,275	6,04,582	6,67,889	7,37,826
Interest	4,55,714	4,13,207	3,66,250	3,14,375	2,57,068	1,93,760	1,23,824
Total (b)	8,61,650	8,61,650	8,61,650	8,61,650	8,61,650	8,61,650	8,61,650
DSCR	1.18	1.81	2.02	2.35	2.71	2.81	2.95
Average DSCR	2.26						

Calculation of Break-Even Point (BEP)							
Sales	1,02,66,000	1,41,98,603	1,57,91,172	1,75,55,379	1,94,56,741	2,04,12,759	2,14,33,586
Variable Cost	63,48,965	92,29,990	1,03,94,430	1,15,58,750	1,28,13,040	1,34,89,160	1,41,63,660
Contribution	39,17,035	49,68,613	53,96,742	59,96,629	66,43,701	69,23,599	72,69,926
Fixed Cost	33,19,774	36,00,457	36,98,547	38,14,842	39,48,565	40,12,967	40,86,294
BEP Sales	87,00,663	1,02,88,880	1,08,22,157	1,11,68,107	1,15,63,767	1,18,31,380	1,20,47,431
Average BEP sales	1,09,17,484						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
		Cash outflow at beginning		
1	31-03-2023	5,65,309	5,56,000	11,21,309
2	31-03-2024	11,45,209	4,81,050	16,26,259
3	31-03-2025	13,76,237	4,16,498	17,92,734
4	31-03-2026	17,14,751	3,60,867	20,75,618
5	31-03-2027	20,74,095	3,12,897	23,86,993
6	31-03-2028	22,24,942	2,71,507	24,96,449
7	31-03-2029	24,16,043	2,35,770	26,51,813
IRR		26.53 %		
Payback Period	3 Years 5 Month			



4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount (Rs)
1	Land Development	21,500
2	Civil Construction	14,40,000
3	Irrigation/Water Supply	2,50,000
4	Electrification	5,00,000
5	Plant & Machinery	20,80,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	12,880
9	Other misc. exp	7,120
	Total Fixed Cost	43,41,500
	Recurring	11,10,000
	Cost of Project	54,51,500



Detailed Project Report ***on*** ***Bakery***

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Bakery & Confectionery
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	500 kg/day
4	Key components of the project	Processing, packaging and sales
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Bread, cookies, biscuit and donut
7	Total Project Cost	Rs. 1,44,27,700
8	Fixed Capital Cost	Rs. 1,27,45,700
9	Working/Recurring capital	Rs. 16,82,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 1,28,16,730
12	Promoter Contribution (min 10% in case of bank loan)	Rs. 16,10,970
13	Assumed Rate of Interest	11%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators:	
	1. Average Annual Net Profit	Rs. 39,92,120
	2. Debt Service Coverage Ratio (DSCR)	1.95
	3. Internal Rate of Return	24.86%
4. Break Even Point (BEP)/Year	3 Year 8 Month	
17	Estimated employment to be generated (nos.)	11

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/: FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by:

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Bakery and confectionery refer to the production and sale of baked goods and confectionery items, respectively. Bakery products include bread, cakes, pastries, biscuits, and other baked goods made from flour, sugar, yeast, and other ingredients. Confectionery products, on the other hand, include candies, chocolates, sweets, and other sugar-based products. The production of both bakery and confectionery items often involves similar processes, such as mixing, baking, and decorating, but the end products differ in terms of ingredients and flavor. The concept of bakery and confectionery involves the creation of sweet treats and baked goods for consumption, which can range from traditional recipes to innovative and contemporary products.

Baked goods include bread rolls, cakes, pastries, puddings, and other baked goods. A bakery is a business that makes and sells baked goods made from flour, such as bread, cakes, pastries, and pies. A baker is someone who uses an oven or another concentrated heat source to make, bake, and sell bread, rolls, biscuits, or cookies, and/or crackers. A bakery is a place where a baker works.

Scope

The bakery and confectionery industry in India is a rapidly growing sector with a large market potential. With increasing urbanization, changing lifestyle, and rising disposable income, the demand for baked goods and confectionery items has increased in recent years. The industry offers a variety of products, including cakes, pastries, bread, biscuits, chocolates, and sweets, among others. The growth of organized retail, increasing number of cafes and restaurants, and growing demand for packaged and ready-to-eat food products have further fuelled the growth of the bakery and confectionery industry in India. The industry provides ample opportunities for entrepreneurs and is expected to continue its growth trajectory in the coming years.

Market Potential

Bakery products are prepared by cooking in the presence of dry heat in an oven, on hot stones, or hot ashes. Bread, cookies, rolls, cakes, biscuits, cupcakes, sweet rolls, doughnuts, coffeecakes, and refrigerated bakery products are among the bakery products available. Bread has been prepared locally or commercially since prehistoric times, and it is an everyday staple and a source of critical nutrients. Biscuits are another major baked product category. With the development of technology, baking processes have experienced a major transition, with modern methods displacing ancient ways. Consumers in emerging economies have greater standards of living and are changing their lives as a result of cultural changes and rising emerging markets, which are driving the global bakery products market. Consumers are also experimenting with new tastes, products, and flavors, which is accelerating market growth. Low-calorie bakery products are likewise becoming more popular, propelling the industry even faster. Consumers are on the lookout for quick and ready-to-eat items as a result of their hectic lifestyles and rising urbanization, resulting in a thriving bakery products market. The Indian bakery market is expected to be valued at USD 7.60 billion in 2020. The market is predicted to grow at an annual pace of 8.5 percent between 2021 and 2026, reaching a value of USD 12.39 billion. India's burgeoning biscuits and cookies industry serve to sustain the country's baking industry



Raw Material Description

Major raw materials are

- Flour
- Sugar
- Yeast
- Eggs
- Milk
- Butter
- Baking powder
- Salt
- Vanilla extract
- Fruits, nuts, chocolate, etc. (as toppings or fillings).

3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	5	%
3	Collection from Debtors (First Year)	15	Days
4	Collection from Debtors	15	Days
5	Payable to Creditors	20	Days
6	Drawing By Promoter	25	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	7	Days
12	Finished Goods in stock (on sales)	3	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	20	%
15	Working Capital Requirement	1	Months
16	Working Capital Utilisation	100	%
17	No. of working days	295	Days

1. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total
A	Land				
1	Land Development	sq. ft	6000	0.70	4,200
2	Fencing (Barbed wire)	ft	400	60.00	24,000
	Sub Total				28,200
B	Civil Construction				
1	Production area	sq. ft	2500	400.00	10,00,000
2	RM and FG Store	sq. ft	2000	400.00	8,00,000
3	Office	sq. ft	200	850.00	1,70,000
4	Labour Shed	sq. ft	250	350.00	87,500
	Sub Total				20,57,500



C	Water Supply				
1	Water Supply with overhead tank and pump				2,50,000
D	Electrification				
1	Electrical Installation with transformer and DG				8,00,000

E	Plant & Machinery				
Sl. No.	Particulars	Specification	Qty	Unit Price	total
1	Flour Sifter cum Sieve	Storage Capacity: 100-200 kg/hr	1	2,00,000	2,00,000
2	Spiral Mixer with Detachable & one extra bowl	Up to 200 kg/ hr. dough Capacity	1	5,00,000	5,00,000
3	Dough Divider		1	6,00,000	6,00,000
4	Rounder for Bread/Rusk		1	3,00,000	3,00,000
5	Intermediate proofer	Working capacity:200-2000 pcs/hour	1	6,00,000	6,00,000
6	Dough Moulder	200-2000pcs/ hr.	1	3,00,000	3,00,000
7	Final Proofer	Temp range: up to 40 degree Celsius and Rh up 90%	1	5,00,000	5,00,000
8	High speed slicer	100-2000 pcs/hr.	1	3,00,000	3,00,000
9	Rotary rack Gas & Electric Oven	Single Trolley 10 shelves (30 tray) for Bread Temp. Range: Up to 250degree Celsius	1	6,00,000	6,00,000
10	Planetary mixer with batter lifting pump	Batter handling capacity up to 150kg/hr	1	4,00,000	4,00,000
11	Cookies wire cut & dropping machine	Up to150kg/hr.	1	7,00,000	7,00,000
12	Dough Sheeter & cutting system	Minimum thickness up to 1mm (minimum) Dough loading capacity: up to 150 kg/hr.	1	5,00,000	5,00,000
13	Bread Stick Machine	Production Capacity: 25-50 kg/hr. (Thickness: 5-30 mm)	1	3,00,000	3,00,000
14	Croissant moulding	2000pcs/Hour	1	3,00,000	3,00,000
15	Center Filling Machine/Injector moulding.	05-50kg/hour	1	3,00,000	3,00,000
16	Donut machine with fryer	Approx. 440 PCS/hour	1	6,00,000	6,00,000
17	Cream Cooker	30 Lit./Hour	1	2,50,000	2,50,000
18	Water chiller	capacity: 110 Lit./hr	1	2,00,000	2,00,000
19	Water Dozer	50 Lit./hour	1	1,00,000	1,00,000
20	Cold Room	2.5 m x2.5 m x2.5 m	1	5,00,000	5,00,000
21	Packaging Machine for Cookies	20-80 pouch/min/Depends upon size & feeding.	1	7,00,000	7,00,000



22	Fully automatic Horizontal flow wrap machine	minimum up to 50 cycles per minute/3000 pouches per hour.	1	7,00,000	7,00,000
23	Tray & Moulds		100	100	10,000
24	RO Plant		1	1,00,000	1,00,000
	Total				95,60,000
F	Miscellaneous Expenditure				
1	Insurance premium of assets				50,000
4	Total Misc. exp.				50,000

4.2. Project Variable Expenses

Details of raw material						
Sl. No.	Items	Unit	Rate/Unit (Rs)	Qty/day (Kg)	Qty/annum (kg)	Total (Rs)
1	Maida	Kg	50	425	1,25,375	62,68,750
2	Sugar	Kg	55	50	14,750	8,11,250
3	Salt	Kg	25	25	7,375	1,84,375
4	Yeast	Kg	400	1	295	1,18,000
5	Butter	Kg	350	25	7,375	25,81,250
6	Jeera	Kg	350	5	1,475	5,16,250
7	Black Seed	Kg	400	5	1,475	5,90,000
8	Skim Milk Powder	Kg	300	25	7,375	22,12,500
9	Other Ingredients: Fruits, nuts, chocolate, etc. (as toppings or fillings)	Kg	600	10	2,950	17,70,000
10	Baking Powder	Kg	600	5	1,475	8,85,000
11	Packing materials	Ls	200	10	2,950	5,90,000
	Total			586	1,72,870	1,65,27,375

Details of Salary

Sl. No.	Type of workers	No. of Worker	Salary Per Month/head (Rs)	Total Salary per annum (Rs)
1	Manager	1	25000	300000
2	Unskilled	5	8000	480000
3	Skilled	2	12,000	2,88,000
4	Domain Skilled	2	18,000	4,32,000
5	Purchase and Store	1	15,000	1,80,000
	Total	11	78,000	16,80,000



4.3. Details of Sales

G Details of sales						
Sl. No.	Type of products	Unit	Rate/Unit (Rs)	Quantity per day	Quantity per annum	Total (Rs)
1	Bread	Kg	90	100	29,500	26,55,000
2	Cookies	Kg	220	200	59,000	1,29,80,000
3	Muffins	Kg	250	200	59,000	1,47,50,000
	Total			500	1,47,500	3,03,85,000





4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	27,22,326	35,80,798	48,83,679	65,51,195	85,31,202	1,07,87,963
Add: Introduced	16,10,970						
Add: Profit	14,82,356	20,52,472	29,31,881	38,52,516	48,24,007	58,53,761	69,47,847
Less: Drawing	3,71,000	11,94,000	16,29,000	21,85,000	28,44,000	35,97,000	44,34,000
Closing Capital	27,22,326	35,80,798	48,83,679	65,51,195	85,31,202	1,07,87,963	1,33,01,810
Term Loan from Bank	1,03,19,054	90,33,662	75,99,525	59,99,432	42,14,177	22,22,335	-
Current Liabilities							
Cash Credit from Bank	13,45,600	13,45,600	13,45,600	13,45,600	13,45,600	13,45,600	13,45,600
Sundry Creditors	7,16,186	8,09,867	9,11,133	10,20,533	11,38,533	12,65,800	14,02,933
Expenses Payable	3,38,900	3,69,200	4,01,600	4,36,300	4,73,600	5,13,400	5,56,400
Current Provisions	7,96,010	10,40,345	14,17,235	18,11,792	22,28,146	26,69,469	31,38,363
Total Current Liabilities	31,96,696	35,65,012	40,75,568	46,14,226	51,85,879	57,94,269	64,43,296
Total Liabilities	1,62,38,077	1,61,79,471	1,65,58,772	1,71,64,852	1,79,31,259	1,88,04,567	1,97,45,107
Assets							
Fixed Assets	1,27,45,700	1,27,45,700	1,27,45,700	1,27,45,700	1,27,45,700	1,27,45,700	1,27,45,700
Less Depreciation	17,84,750	30,57,150	43,66,823	54,89,390	64,51,982	72,77,756	79,86,476
Net Fixed Assets	1,09,60,950	96,88,550	83,78,878	72,56,311	62,93,718	54,67,944	47,59,224
Current Assets							
Sundry Debtors	9,87,600	11,16,700	12,56,300	14,07,000	15,69,700	17,45,200	19,34,300
Inventories	4,48,203	4,81,003	5,42,230	6,08,450	6,79,900	7,57,040	8,40,130
Cash and Bank Balance	1,97,600	2,23,400	2,51,300	2,81,400	3,14,000	3,49,100	3,86,900
Other Current Assets	36,43,724	46,69,819	61,30,065	76,11,692	90,73,941	1,04,85,283	1,18,24,553
Total Current Assets	52,77,127	64,90,921	81,79,895	99,08,542	1,16,37,541	1,33,36,623	1,49,85,883
Total Assets	1,62,38,077	1,61,79,471	1,65,58,772	1,71,64,852	1,79,31,259	1,88,04,567	1,97,45,107



4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	2,30,750.00	15,54,000	17,84,750
	2	2,07,675.00	13,20,900	15,28,575
	3	1,86,907.50	11,22,765	13,09,673
	4	1,68,216.75	9,54,350	11,22,567
	5	1,51,395.08	8,11,198	9,62,593
	6	1,36,255.57	6,89,518	8,25,774
	7	1,22,630.01	5,86,090	7,08,720

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	65	70	75	80	85	90	95
Revenue							
Sales	1,97,50,250	2,23,33,000	2,51,25,000	2,81,40,000	3,13,94,000	3,49,03,000	3,86,85,000
Opening Stock of Finished Goods	-	(1,97,503)	(2,23,330)	(2,51,250)	(2,81,400)	(3,13,940)	(3,49,030)
Closing Stock of Finished Goods	1,97,503	2,23,330	2,51,250	2,81,400	3,13,940	3,49,030	3,86,850
Total Income (A)	1,99,47,753	2,23,58,828	2,51,52,920	2,81,70,150	3,14,26,540	3,49,38,090	3,87,22,820
Expenditure							
Opening stock of Raw Material	-	2,50,700	2,83,500	3,18,900	3,57,200	3,98,500	4,43,100
Purchase (Net) of Material	1,07,42,794	1,21,48,000	1,36,67,000	1,53,08,000	1,70,78,000	1,89,87,000	2,10,44,000
Closing Stock of Raw material	2,50,700	2,83,500	3,18,900	3,57,200	3,98,500	4,43,100	4,91,100
Raw Material Consumption	1,04,92,094	1,21,15,200	1,36,31,600	1,52,69,700	1,70,36,700	1,89,42,400	2,09,96,000
Repair & Maintenance- Machinery (@3% of Cost)	3,81,525	4,00,700	4,20,800	4,41,900	4,64,000	4,87,200	5,11,600
Electricity expense	15,80,020	17,86,700	20,10,000	22,51,200	25,11,600	27,92,300	30,97,900
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500
Administrative salaries and wages	16,80,000	17,64,000	18,52,200	19,44,900	20,42,200	21,44,400	22,51,700
Other Misc. Expenses [@2% of sales]	3,95,005	4,46,660	5,02,500	5,62,800	6,27,880	6,98,060	7,74,456



Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	65	70	75	80	85	90	95
Total Cost	1,45,58,644	1,65,44,760	1,84,50,200	2,05,05,300	2,27,18,980	2,51,02,860	2,76,72,156
Profit Before Depreciation, Interest and Tax	53,89,109	58,14,068	67,02,720	76,64,850	87,07,560	98,35,230	1,10,50,664
Depreciation	17,84,750	15,28,575	13,09,673	11,22,567	9,62,593	8,25,774	7,08,720
Profit Before Interest and Tax	36,04,359	42,85,493	53,93,048	65,42,283	77,44,967	90,09,456	1,03,41,943
Interest on Term Loan	12,04,889	10,71,572	9,22,828	7,56,871	5,71,710	3,65,122	1,34,629
Interest on Working Capital Loan	1,21,104	1,21,104	1,21,104	1,21,104	1,21,104	1,21,104	1,21,104
Total Interest Paid	13,25,993	11,92,676	10,43,932	8,77,975	6,92,814	4,86,226	2,55,733
Profit Before Tax	22,78,366	30,92,817	43,49,116	56,64,308	70,52,153	85,23,230	1,00,86,210
Income Tax	7,96,010	10,40,345	14,17,235	18,11,792	22,28,146	26,69,469	31,38,363
Profit after Tax	14,82,356	20,52,472	29,31,881	38,52,516	48,24,007	58,53,761	69,47,847

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	1,97,600	4,79,575	5,07,475	5,37,575	5,70,175	6,05,275
Cash Inflow during the Period	1,80,22,827	39,49,362	47,52,110	55,13,740	63,58,254	72,87,924	83,05,595
Cash Outflow during the Period	1,78,25,227	36,67,387	47,24,210	54,83,640	63,25,654	72,52,824	82,67,795
Closing Cash & Bank Balance	1,97,600	4,79,575	5,07,475	5,37,575	5,70,175	6,05,275	6,43,075

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	12,04,888.61	23,56,964.33	11,52,075.73
2	10,71,571.74	23,56,964.33	12,85,392.59
3	9,22,827.61	23,56,964.33	14,34,136.72
4	7,56,870.98	23,56,964.33	16,00,093.36
5	5,71,710.04	23,56,964.33	17,85,254.30
6	3,65,122.49	23,56,964.33	19,91,841.85
7	1,34,628.87	23,56,964.33	22,22,335.47
Total	50,27,620.32	1,64,98,750.32	1,14,71,130.00



4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	1,97,50,250	2,23,33,000	2,51,25,000	2,81,40,000	3,13,94,000	3,49,03,000	3,86,85,000
Net Profit	14,82,356	20,52,472	29,31,881	38,52,516	48,24,007	58,53,761	69,47,847
Interest Paid	13,25,993	11,92,676	10,43,932	8,77,975	6,92,814	4,86,226	2,55,733
Cash Accruals (a)	28,08,349	32,45,147	39,75,813	47,30,491	55,16,821	63,39,987	72,03,580
Interest Paid	8,78,044	7,83,879	6,77,772	5,58,208	4,23,480	2,71,665	1,00,597
Principal	11,52,076	12,85,393	14,34,137	16,00,093	17,85,254	19,91,842	22,22,335
Interest	13,25,993	11,92,676	10,43,932	8,77,975	6,92,814	4,86,226	2,55,733
Total (b)	24,78,068	24,78,068	24,78,068	24,78,068	24,78,068	24,78,068	24,78,068
DSCR	1.13	1.31	1.60	1.91	2.23	2.56	2.91
Average DSCR	1.95						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
		Cash outflow at beginning		
1	31-03-2023	14,82,356	17,84,750	32,67,106
2	31-03-2024	20,52,472	15,28,575	35,81,047
3	31-03-2025	29,31,881	13,09,673	42,41,554
4	31-03-2026	38,52,516	11,22,567	49,75,083
5	31-03-2027	48,24,007	9,62,593	57,86,600
6	31-03-2028	58,53,761	8,25,774	66,79,535
7	31-03-2029	69,47,847	7,08,720	76,56,568
IRR	24.86%			
Payback Period	3 Years 8 Months			



Calculation of Break-Even Point (BEP)

Sales	1,99,47,753	2,23,58,828	2,51,52,920	2,81,70,150	3,14,26,540	3,49,38,090	3,87,22,820
Variable Cost	1,08,87,099	1,25,61,860	1,41,34,100	1,58,32,500	1,76,64,580	1,96,40,460	2,17,70,456
Contribution	90,60,654	97,96,968	1,10,18,820	1,23,37,650	1,37,61,960	1,52,97,630	1,69,52,364
Fixed Cost	67,82,288	67,04,151	66,69,704	66,73,342	67,09,807	67,74,400	68,66,153
BEP Sales	1,49,31,748	1,53,00,342	1,52,25,091	1,52,37,022	1,53,22,382	1,54,71,978	1,56,83,761
Average BEP sales	1,53,10,332						

4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount
1	Land Development	28,200
2	Civil Construction	20,57,500
3	Irrigation/Water Supply	2,50,000
4	Electrification	8,00,000
5	Plant & Machinery	95,60,000
6	Livestock	-
7	Insurance	50,000
8	DPR Cost	-
9	Other Misc. Exp	-
	Total Fixed Cost	1,27,45,700
	Recurring	16,82,000
	Cost of Project	1,44,27,700



Detailed Project Report ***on*** ***Crop residue-based products (Bio Brick)***

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Product out of crop residue
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	8000 Bio bricks/Day
4	Project location (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
5	Key components of the project (Example: Dairy, Vermicomposting, Biogas, Apiary, Solar Lighting)	Bio bricks based out of crop residue
6	Products/Output from the project	Bio Bricks
7	Total Project Cost	Rs. 1,31,07,600
8	Fixed Capital Cost	Rs. 1,26,49,600
9	Working/Recurring capital	Rs. 4,58,000
10	Bank Finance/ Self Finance	Bank
11	Bank Loan Amount	Rs. 1,17,51,040
12	Promoter Contribution (min 10% in case of bank loan)	Rs. 13,56,560
13	Bank details: Name of the Bank, Branch, IFSC Code	
14	Assumed Interest Rate of Interest	11%
15	Subsidy Eligibility (40%, 50%)	
16	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Monthly equated instalments for 7 years
17	Key Financial Indicators:	
	1. Average Annual Net Profit	Rs. 50,00,672
	2. Debt Service Coverage Ratio (DSCR)	2.42
	3. Internal Rate of Return	38.84%
	Break Even Year	2 Years and 6 Months
18	Estimated employment to be generated (nos.)	6

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
	Farmer Id of Individual, if available	
17	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/: FPO: , Proprietorship firm: Registration Certificate under Shops & Establishment Act,
Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC):
Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of
Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by:

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Background

Bio-bricks refer to sustainable building materials produced using organic waste, specifically crop residues like rice husks, wheat straw, and sugarcane bagasse. These bricks offer an environmentally-friendly alternative to traditional clay or cement bricks. The process involves collecting crop residues, drying, grinding, mixing with a binder, molding into brick shapes, and allowing them to cure. The utilization of agricultural waste not only provides a constructive use for what might otherwise be discarded but also aids in reducing the environmental impact of traditional brick manufacturing.

Market Potential

Growing Demand for Sustainable Solutions: As global awareness of environmental issues increases, there's a growing demand for eco-friendly products and solutions. Bio-bricks, being sustainable alternatives to traditional bricks, are well-positioned to meet this demand.

Waste Management Opportunities: In regions with substantial agricultural output, there's a constant challenge of managing crop residues. By turning these residues into bio-bricks, businesses can tap into a readily available resource, turning a challenge into an opportunity.

Cost-Efficiency: Given that crop residues are often considered waste, sourcing them can be more cost-effective than traditional raw materials. This can result in competitive pricing for bio-bricks, making them appealing to cost-conscious consumers.

Diversification: The technology and processes used for bio-brick production can be diversified to produce other sustainable construction materials, broadening the market reach.

Innovative Marketing: The unique selling proposition of bio-bricks as an eco-friendly, innovative solution can be a strong marketing point, appealing to environmentally-conscious consumers and businesses.

Partnerships: Collaborations with agricultural sectors, environmental organizations, and research institutions can further boost the market potential by ensuring a steady supply of raw materials, enhancing product quality, and increasing credibility.

Bio-Brick Production Sequence

1. Collection of Crop Residues
2. Drying of Collected Residues
3. Shredding and Grinding Residues
4. Mixing Residues with Additives
5. Molding Mixture into Brick Shape
6. Compacting Bricks to Desired Density
7. Packaging Finished Bricks



3. Techno-Commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Utility Rate/consumption	5	%
3	Collection from Debtors (First Year)	15	Days
4	Collection from Debtors	15	Days
5	Payable to Creditors	5	Days
6	Drawing By Promoter	10	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	90	Days
12	Finished Goods in stock (on sales)	30	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	20	%
15	Working Capital Requirement	30	Days
17	Working Capital Utilization	100	%
18	No of working Days	300	Days

4. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit (Rs)	Total (Rs)
A	Land				
1	Land Development	Sq. ft	8000	0.70	5,600
2	Fencing (Barbed wire/Green Fencing)	ft	400	60	24,000
	Sub Total				29,600
B	Civil Construction				
1	Shed	Sq. ft	4000	350.00	14,00,000
2	Storeroom	Sq. ft	3000	350.00	10,50,000
3	Office	Sq. ft	200	350.00	70,000
4	Labour shed	Sq. ft	200	350.00	70,000
	Sub Total				25,90,000
C	Water Supply				
1	Water Supply with tank, pump, and pipeline				2,00,000.00
D	Electrification				
1	Electrical Installation (with transformer and DG Unit as required)				4,00,000.00

E Plant & Machinery					
Sl. No.	Particulars	Specification	Qty.	Unit Price (Rs)	Total (Rs)
1	Automated Shredder/Chopper	1000 kg/hr	1	5,00,000	5,00,000



2	Grinding Mill with Cyclone Separator	1000 kg/hr	1	8,00,000	8,00,000
3	Automated Mixing and Dosing System	1500 kg/hr	1	11,00,000	11,00,000
4	Conveyor Belt System		1	20,00,000	20,00,000
5	Brick Molding Machine	2000 bricks/hour	1	25,00,000	25,00,000
6	Hydraulic Press	2000 bricks/hour	1	15,00,000	15,00,000
7	Mechanical Dryers/Ovens	2000 bricks/hour	1	10,00,000	10,00,000
	Total				94,00,000
F	Miscellaneous Expenditure				
Sl. No.	Particulars	Specification	Qty	Unit Price	Total
1	Insurance premium of assets				30,000
2	DPR Cost				
3	Other misc. exp				
	Total Misc. Exp				30,000

4.2. Project Variable Expenses

Details of Recurring Expenditure						
Details of raw material						
Sl. No.	Items	Unit	Rate/Unit (in Rs)	Qty/day	Qty/annum	Total (Rs)
1	Crop Residue	Ton	600	7.5	2250	13,50,000
2	Binding Agent	Ton	2000	2.5	750	15,00,000
3	Additives/Plasticizers	Ton	5000	0.5	150	7,50,000
4	Reinforcing Agents	Ton	2500	0.4	120	3,00,000
5	Fillers (e.g., sand)	Ton	500	1.0	300	1,50,000
6	Stabilizers (e.g., lime)	Ton	2000	0.4	120	2,40,000
7	Colorants	Ton	7000	0.1	30	2,10,000
	Total				3,720	45,00,000

Details of salary and other benefits				
Sl. No.	Type of workers	No. of Worker	Salary Per Month/head (Rs)	Total Salary per annum (Rs)
1	Manager	1	15,000	180000
2	Skilled Labour	1	10,000	1,20,000
3	Semi Skilled Labour	4	8,000	3,84,000
	Grand Total	6		6,84,000

4.2. Details of Sales

Details of Income						
Sl. No.	Type of products	Unit	Rate/Unit (Rs)	Quantity/day	Quantity/annum	Total (Rs)
1	Bio Bricks	piece	6	8000	2400000	14400000
	Total				24,00,000	1,44,00,000



4.3. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	30,72,974	32,86,204	37,80,782	44,85,647	50,58,589	56,26,440
Add: Introduced	13,56,560						
Add: Profit	34,33,414	35,00,230	42,76,578	51,90,865	56,31,941	61,94,852	67,76,823
Less: Drawing	17,17,000	32,87,000	37,82,000	44,86,000	50,59,000	56,27,000	62,02,000
Closing Capital	30,72,974	32,86,204	37,80,782	44,85,647	50,58,589	56,26,440	62,01,263
Term Loan from Bank	1,02,41,251	89,65,550	75,42,226	59,54,197	41,82,403	22,05,580	-
Current Liabilities							
Cash Credit from Bank	3,66,400	3,66,400	3,66,400	3,66,400	3,66,400	3,66,400	3,66,400
Sundry Creditors	52,500	63,000	70,300	78,167	82,083	86,200	90,517
Expenses Payable	1,05,700	1,14,800	1,22,500	1,30,800	1,37,300	1,44,200	1,51,500
Current Provisions	12,03,606	12,32,242	15,64,962	19,56,799	21,45,832	23,87,079	26,36,496
Total Current Liabilities	17,28,206	17,76,442	21,24,162	25,32,166	27,31,615	29,83,879	32,44,912
Total Liabilities	1,50,42,431	1,40,28,195	1,34,47,170	1,29,72,010	1,19,72,607	1,08,15,899	94,46,175
Assets							
Fixed Assets	1,26,19,600	1,26,19,600	1,26,19,600	1,26,19,600	1,26,19,600	1,26,19,600	1,26,19,600
Less Depreciation	17,49,000	30,01,200	42,89,265	53,95,420	63,45,821	71,62,814	78,65,496
Net Fixed Assets	1,08,70,600	96,18,400	83,30,335	72,24,180	62,73,779	54,56,786	47,54,104
Current Assets							
Sundry Debtors	5,04,000	6,04,800	6,74,800	7,50,200	7,87,800	8,27,200	8,68,600
Inventories	19,53,000	21,42,000	24,75,000	27,56,500	29,77,900	31,27,100	32,83,600
Cash and Bank Balance	1,00,800	1,21,000	1,35,000	1,50,100	1,57,600	1,65,500	1,73,800
Other Current Assets	16,14,031	15,41,995	18,32,035	20,91,030	17,75,528	12,39,313	3,66,071
Total Current Assets	41,71,831	44,09,795	51,16,835	57,47,830	56,98,828	53,59,113	46,92,071
Total Assets	1,50,42,431	1,40,28,195	1,34,47,170	1,29,72,010	1,19,72,607	1,08,15,899	94,46,175



4.4. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	2,79,000.00	14,70,000	17,49,000
	2	2,51,100.00	12,49,500	15,00,600
	3	2,25,990.00	10,62,075	12,88,065
	4	2,03,391.00	9,02,764	11,06,155
	5	1,83,051.90	7,67,349	9,50,401
	6	1,64,746.71	6,52,247	8,16,994
	7	1,48,272.04	5,54,410	7,02,682

4.5. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	70	80	85	90	90	95	95
Revenue							
Sales	1,00,80,000	1,20,96,000	1,34,95,000	1,50,04,000	1,57,55,000	1,65,43,000	1,73,71,000
Opening Stock of Finished Goods	-	(10,08,000)	(12,09,600)	(13,49,500)	(15,00,400)	(15,75,500)	(16,54,300)
Closing Stock of Finished Goods	10,08,000	12,09,600	13,49,500	15,00,400	15,75,500	16,54,300	17,37,100
Total Income (A)	1,10,88,000	1,22,97,600	1,36,34,900	1,51,54,900	1,58,30,100	1,66,21,800	1,74,53,800
Expenditure							
Opening stock of Raw Material	-	9,45,000	11,34,000	12,65,400	14,07,000	14,77,500	15,51,600
Purchase (Net) of Material	31,50,000	37,80,000	42,18,000	46,90,000	49,25,000	51,72,000	54,31,000
Closing Stock of Raw material	9,45,000	11,34,000	12,65,400	14,07,000	14,77,500	15,51,600	16,29,300
Raw Material Consumption	22,05,000	35,91,000	40,86,600	45,48,400	48,54,500	50,97,900	53,53,300
Repair & Maintenance- Machinery (@5% of Cost)	2,51,800	2,64,400	2,77,700	2,91,600	3,06,200	3,21,600	3,37,700
Electricity expense	2,01,600	2,42,000	2,69,900	3,00,100	3,15,100	3,30,900	3,49,100
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500
Administrative salaries and wages	6,84,000	7,18,200	7,54,200	7,92,000	8,31,600	8,73,200	9,16,900
Other Misc. Expenses [@1% of sales]	1,00,800	1,20,960	1,34,950	1,50,040	1,57,550	1,65,430	1,73,710
Total Cost	34,73,200	49,68,060	55,56,450	61,16,940	65,01,550	68,27,530	71,71,210



Profit Before Depreciation, Interest and Tax	76,14,800	73,29,540	80,78,450	90,37,960	93,28,550	97,94,270	1,02,82,590
Depreciation	17,49,000	15,00,600	12,88,065	11,06,155	9,50,401	8,16,994	7,02,682
Profit Before Interest and Tax	58,65,800	58,28,940	67,90,385	79,31,805	83,78,149	89,77,276	95,79,908
Interest on Term Loan	11,95,804	10,63,492	9,15,870	7,51,164	5,67,399	3,62,370	1,33,614
Interest on Working Capital Loan	32,976	32,976	32,976	32,976	32,976	32,976	32,976
Total Interest Paid	12,28,780	10,96,468	9,48,846	7,84,140	6,00,375	3,95,346	1,66,590
Profit Before Tax	46,37,020	47,32,472	58,41,539	71,47,665	77,77,773	85,81,931	94,13,318
Income Tax	12,03,606	12,32,242	15,64,962	19,56,799	21,45,832	23,87,079	26,36,496
Profit after Tax	34,33,414	35,00,230	42,76,578	51,90,865	56,31,941	61,94,852	67,76,823

4.6. Projected Cash Flow

Period Ending	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	1,00,800	3,69,400	3,83,400	3,98,500	4,06,000	4,13,900
Cash Inflow during the Period	1,71,51,871	51,21,101	59,12,363	67,05,025	70,97,294	78,00,324	86,13,780
Cash Outflow during the Period	1,70,51,071	48,52,501	58,98,363	66,89,925	70,89,794	77,92,424	86,05,480
Closing Cash & Bank Balance	1,00,800	3,69,400	3,83,400	3,98,500	4,06,000	4,13,900	4,22,200

4.7. Projected Loan Repayment

Year	Interest	EMI	Principal
1	11,95,803.99	23,39,193.30	11,43,389.31
2	10,63,492.31	23,39,193.30	12,75,700.99
3	9,15,869.67	23,39,193.30	14,23,323.62
4	7,51,164.32	23,39,193.30	15,88,028.97
5	5,67,399.46	23,39,193.30	17,71,793.84
6	3,62,369.54	23,39,193.30	19,76,823.76
7	1,33,613.79	23,39,193.30	22,05,579.51
Total	49,89,713.08	1,63,74,353.08	1,13,84,640.00



4.8. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	1,00,80,000	1,20,96,000	1,34,95,000	1,50,04,000	1,57,55,000	1,65,43,000	1,73,71,000
Net Profit	34,33,414	35,00,230	42,76,578	51,90,865	56,31,941	61,94,852	67,76,823
Interest Paid	12,28,780	10,96,468	9,48,846	7,84,140	6,00,375	3,95,346	1,66,590
Cash Accruals (a)	46,62,194	45,96,698	52,25,423	59,75,006	62,32,317	65,90,197	69,43,413
Principal	11,43,389	12,75,701	14,23,324	15,88,029	17,71,794	19,76,824	22,05,580
Interest	12,28,780	10,96,468	9,48,846	7,84,140	6,00,375	3,95,346	1,66,590
Total (b)	23,72,169	23,72,169	23,72,169	23,72,169	23,72,169	23,72,169	23,72,169
DSCR	1.97	1.94	2.20	2.52	2.63	2.78	2.93
Average DSCR	2.42						

Calculation of Break-Even Point (BEP)							
Sales	1,10,88,000	1,22,97,600	1,36,34,900	1,51,54,900	1,58,30,100	1,66,21,800	1,74,53,800
Variable Cost	23,05,800	37,11,960	42,21,550	46,98,440	50,12,050	52,63,330	55,27,010
Contribution	87,82,200	85,85,640	94,13,350	1,04,56,460	1,08,18,050	1,13,58,470	1,19,26,790
Fixed Cost	41,45,180	38,53,168	35,71,811	33,08,795	30,40,277	27,76,539	25,13,472
BEP Sales	52,33,513	55,19,067	51,73,640	47,95,548	44,48,850	40,63,142	36,78,243
Average BEP sales	47,01,715						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
	Cash outflow at beginning			
				-1,31,07,600
1	31-03-2023	34,33,414	17,49,000	51,82,414
2	31-03-2024	35,00,230	15,00,600	50,00,830
3	31-03-2025	42,76,578	12,88,065	55,64,643
4	31-03-2026	51,90,865	11,06,155	62,97,020
5	31-03-2027	56,31,941	9,50,401	65,82,343
6	31-03-2028	61,94,852	8,16,994	70,11,845
7	31-03-2029	67,76,823	7,02,682	74,79,505
IRR	38.84%			
Payback Period	2 Years 6 Months			



4.9. Summary of Project Cost

SI. No.	Name of Assets	Amount (INR)
1	Land Development	29,600
2	Civil Construction	25,90,000
3	Irrigation/Water Supply	2,00,000
4	Electrification	4,00,000
5	Plant & Machinery	94,00,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	-
9	Other Miscellaneous Exp.	-
	Total Fixed Cost	1,26,49,600
	Recurring	4,58,000
	Cost of Project	1,31,07,600



Detailed Project Report ***on*** ***Groundnut Processing Unit***

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Groundnut Processing
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	2500 kg/day
4	Key components of the project	Processing, Packaging and Selling
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Peanut
7	Total Project Cost	Rs. 55,88,800
8	Fixed Capital Cost	Rs. 36,02,800
9	Working/Recurring capital	Rs. 19,86,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 46,32,720
12	Promoter Contribution (min 10% of the project cost in case of bank loan)	Rs. 9,56,080
13	Assumed Rate of Interest	11%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators: 1. Average Annual Net Profit 2. Debt Service Coverage Ratio (DSCR) 3. Internal Rate of Return 4. Break Even Point (BEP)/Year	Rs. 18,02,378
		2.69
		28.83%
		3 Years and 2 Month
17	Estimated employment to be generated (nos.)	12

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/: FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by: APICOL

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Groundnut, 'the unpredictable legume' is also known as earthnut, peanut, monkey nut and manilla nut. It is the 13th most important food crop and 4th most important oilseed crop of the world. The botanical name *Arachis hypogaea* L. has been derived from the Greek words, *Arachis* meaning a legume and *hypogaea* meaning below ground referring to geocarpic nature of pod formation. It is one of our country's most important cash crops. It is a low-cost but erratic source. Groundnut is the world's sixth most significant oil seed crop. It includes 48-50% oil, 26-28% protein, and is high in dietary fibers, minerals, and vitamins. Groundnuts are grown on 26.4 million hectares worldwide, with a total productivity of 1.4 metric tons per hectare. Over 100 countries grow groundnuts worldwide. Developing countries account for 97% of the global area and 94% of global agricultural production.

Groundnut kernels have about 25% protein which is 1.3 times higher than meat, 2.5 times higher than eggs and 8 times higher than fruit. The oil content in kernels ranges from 40-50% and is extensively used for cooking (culinary oil) and for preparing vegetable oil (vanaspati). Its oil is also used for the preparation of soaps, cosmetics, cold cream and for various industrial uses.

Groundnut Production in India

India has more land dedicated to groundnut agriculture than China. Because the crop is largely grown under rainfed circumstances, production is lower because yield is low. After China, India is the world's second largest producer of groundnuts. During 2020-2021, the country's major oilseed production will be groundnut. Its cultivation in India is mainly confined to the States of Odisha, Gujarat, Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra, Madhya Pradesh, Uttar Pradesh, Rajasthan, and Punjab. The highest productivity of groundnut (1604 kg/ha) is in State of Odisha. In Odisha, groundnut is grown in an about 20 lakh hectares area with total production of about 26 lakh tonnes annually. In Odisha, groundnut is grown mainly in the districts of Mayurbhanj, Jajpur, Bhadrak, etc. Mayurbhanj is the heart of the India for groundnut production.

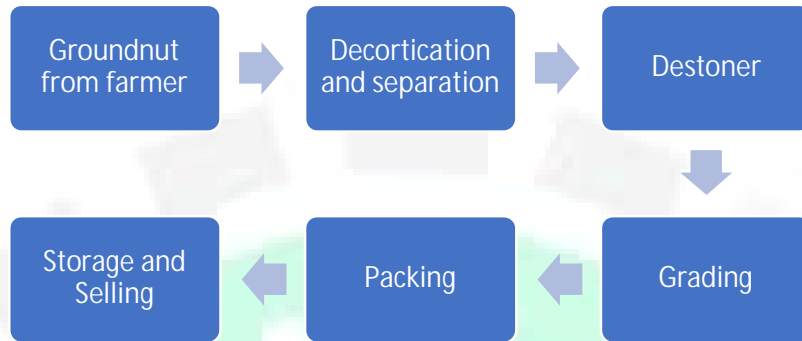
Groundnut contains 40.10% fat and 25.30% protein on average, and it is high in calcium, iron, and vitamin B complexes such as thiamine, Riboflavin, Niacin, and Vitamin A. It has several stages.

Uses

- a. **Groundnut Oil:** Groundnut oil has a variety of applications, the most common of which is as a cooking oil. It is used in a variety of products such as soap producing fuel, cosmetics, shaving cream, leather dressing, furniture cream, lubricants, and so forth. Groundnut oil is also utilized in the production of vanaspathi ghee and fatty acids. It is also employed as a preservation medium in the making of pickles, chutney, and other condiments.
- b. **Kernels:** Whole kernels are prepared for consumption by frying, soaking, roasting, and boiling, as well as in many varieties of namkens. The most common method of consumption is roasted groundnut.



- c. Groundnut Cake: Because of its nutritional richness and palatability, it is an excellent feed for animals and poultry.
- d. Groundnut Shell: Groundnut shell has a lot of commercial potential. It is used in livestock sheds as a fuel filter.



Market Potential

The kernels are consumed either roasted or fried and salted. Groundnut kernel contains about 47-49 % oil and 20 % protein. Its kernel as a whole is highly digestible. The kernels are eaten as either roasted or fried and salted. The biological value of the groundnut protein is among the highest of the vegetable protein and equals that of casein. Groundnut oil is famous for use in human diet and peoples like it more in preparation of their foods as compared to other edible oils. Groundnut oil is primarily used in the manufacturing of vegetable ghee. Groundnut is a good source of all B vitamins except B12. They are a rich source of thiamin, riboflavin, nicotinic acid and vitamin E. 1 g kernel supplies 5-8 food calories.

The oil cake obtained after the extraction of the oil is a valuable organic manure and animal feed. It contains 7-8 % N, 1.5 % P₂O₅ and 1.5 % K₂O. It is a good rotation crop being legume as it builds up the soil fertility by fixing atmospheric nitrogen through root nodules which adds about 12 to 40 kg N/ha and also act as a efficient cover crop for land exposed to soil erosion. The per capita consumption of edible oils in India is about 5 kg/annum, which is far less than the world average of about 13 kg and one fourth of 2 kg/capita consumption in developed countries. Plant haulm used as valuable foods. Shell is used for fuel; thus, it is fourfold crop i.e., food, fodder, feed and bio-fertilizer.

3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	5	%
3	Collection from Debtors (First Year)	10	Days
4	Collection from Debtors	10	Days
5	Payable to Creditors	15	Days
6	Drawing By Promoter	20	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	10	Days



Sl. No.	Parameter	Value	Unit
12	Finished Goods in stock (on sales)	5	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	30	%
15	Working Capital Requirement	15	Days
16	Working Capital Utilisation	100	%
17	No. of Working Days	295	Days
18	Yield of Ground nut	70	%
19	Yield of Groundnut shell	25	%

4. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total
A	Land				
1	Land Development	sq. ft	7000	0.70	4,900
2	Fencing (Barbed wire/Green Fencing)	ft	340	60.00	20,400
	Sub Total				25,300
B	Civil Construction				
1	Production area	sq. ft	2000	400.00	8,00,000
2	Store	sq. ft	2000	400.00	8,00,000
3	Office	sq. ft	200	850.00	1,70,000
4	Labour Shed	sq. ft	250	350.00	87,500
	Sub Total				18,57,500
C	Water Supply				
1	Water Supply with overhead tank and pump				00
D	Electrification				
1	Electrical Installation with transformer and DG Unit				5,00,000
Plant and Machinery					
Sl. No.	Particulars	Specification	Qty	Unit Price	total
1	Groundnut decorticator machine (Combined decorticator and separator)	10 HP 3 phase	1	7,00,000	7,00,000
2	Groundnut destoner machine	2HP	1		
3	Groundnut bucket elevator	6 HP	1		
4	Grader		1		
5	Electric motor and control panels		1		
6	Packing Machine	500g, 1000g	1	5,00,000	5,00,000
	Total				12,00,000
F	Miscellaneous Expenditure				
1	Insurance premium of assets				20,000
	Total				20,000



4.2. Project Variable Expenses

Details of raw material						
Sl. No.	Items	Unit	Rate/Unit (in Rs)	Qty/day	Qty/annum(kg)	Total (Rs)
1	Raw groundnut	Kg	55.00	2500	7,37,500	4,05,62,500
2	Packing material	No.	5.00	1,750	5,16,250	25,81,250
	Total			4,250	12,53,750	4,31,43,750

Details of salary and other benefits				
Sl. No.	Type of workers	No. of worker	Salary per month/head (Rs)	Total salary per annum (Rs)
1	Manager	1	20000	240000
2	Unskilled	7	10000	840000
3	Skilled	2	12,000	2,88,000
4	Domain Skilled	1	12,000	1,44,000
5	Purchase and Store	1	15,000	1,80,000
	Grand Total	12	69,000	16,92,000

4.3. Details of Sales

Details of sales						
Sl. No.	Type of products	Unit	Rate/Unit (Rs)	Quantity/day	Quantity/annum	Total (Rs)
1	Groundnut	Kg	100	1750	5,16,250	5,16,25,000
2	Groundnut shell	Kg	4	625	1,84,375	7,37,500
	Total				7,00,625	5,23,62,500



4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	19,23,194	26,41,806	32,72,914	40,48,406	49,58,225	57,50,177
Add: Introduced	9,56,080						
Add: Profit	12,09,114	13,79,612	14,50,109	17,88,492	21,49,819	22,29,953	24,09,548
Less: Drawing	2,42,000	6,61,000	8,19,000	10,13,000	12,40,000	14,38,000	16,32,000
Closing Capital	19,23,194	26,41,806	32,72,914	40,48,406	49,58,225	57,50,177	65,27,725
Term Loan from Bank	29,16,865	25,53,526	21,48,142	16,95,847	11,91,213	6,28,183	-
Current Liabilities							
Cash Credit from Bank	13,90,200	13,90,200	13,90,200	13,90,200	13,90,200	13,90,200	13,90,200
Sundry Creditors	12,94,313	18,12,050	20,21,600	22,47,550	24,91,050	26,15,650	27,46,450
Expenses Payable	3,81,300	4,82,800	5,28,600	5,77,800	6,30,600	6,62,100	6,95,600
Current Provisions	2,50,335	3,23,405	3,53,618	4,98,639	6,53,494	6,87,837	7,64,806
Total Current Liabilities	33,16,147	40,08,455	42,94,018	47,14,189	51,65,344	53,55,787	55,97,056
Total Liabilities	81,56,206	92,03,787	97,15,074	1,04,58,442	1,13,14,781	1,17,34,147	1,21,24,781
Assets							
Fixed Assets	36,02,800	36,02,800	36,02,800	36,02,800	36,02,800	36,02,800	36,02,800
Less Depreciation	4,40,750	8,24,675	11,59,370	14,51,384	17,06,366	19,29,194	21,24,082
Net Fixed Assets	31,62,050	27,78,125	24,43,430	21,51,416	18,96,434	16,73,606	14,78,718
Current Assets							
Sundry Debtors	10,47,300	14,66,200	16,35,700	18,18,600	20,15,600	21,16,400	22,22,200
Inventories	14,10,000	17,61,100	21,16,108	23,55,512	26,13,578	27,98,264	29,38,119
Cash and Bank Balance	2,09,500	2,93,300	3,27,200	3,63,800	4,03,200	4,23,300	4,44,500
Other Current Assets	23,27,356	29,05,062	31,92,635	37,69,114	43,85,969	47,22,577	50,41,245
Total Current Assets	49,94,156	64,25,662	72,71,644	83,07,026	94,18,347	1,00,60,541	1,06,46,064
Total Assets	81,56,206	92,03,787	97,15,074	1,04,58,442	1,13,14,781	1,17,34,147	1,21,24,781



4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	1,85,750.00	2,55,000	4,40,750
	2	1,67,175.00	2,16,750	3,83,925
	3	1,50,457.50	1,84,238	3,34,695
	4	1,35,411.75	1,56,602	2,92,014
	5	1,21,870.58	1,33,112	2,54,982
	6	1,09,683.52	1,13,145	2,22,828
	7	98,715.17	96,173	1,94,888

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	60	80	85	90	95	95	95
Revenue							
Sales	3,14,17,500	4,39,85,000	4,90,71,000	5,45,56,000	6,04,67,000	6,34,91,000	6,66,66,000
Opening Stock of Finished Goods	-	(5,32,500)	(7,45,508)	(8,31,712)	(9,24,678)	(10,24,864)	(10,76,119)
Closing Stock of Finished Goods	5,32,500	7,45,508	8,31,712	9,24,678	10,24,864	10,76,119	11,29,932
Total Income (A)	3,19,50,000	4,41,98,008	4,91,57,203	5,46,48,966	6,05,67,186	6,35,42,254	6,67,19,814
Expenditure							
Opening stock of Raw Material	-	8,77,500	12,28,600	13,70,600	15,23,800	16,88,900	17,73,400
Purchase (Net) of Material	2,58,86,250	3,62,41,000	4,04,32,000	4,49,51,000	4,98,21,000	5,23,13,000	5,49,29,000
Closing Stock of Raw material	8,77,500	12,28,600	13,70,600	15,23,800	16,88,900	17,73,400	18,62,000
Raw Material Consumption	2,50,08,750	3,58,89,900	4,02,90,000	4,47,97,800	4,96,55,900	5,22,28,500	5,48,40,400
Repair & Maintenance- Machinery (@3% of Cost)	35,775	36,900	38,800	40,800	42,900	45,100	47,400
Electricity expense	25,13,400	35,18,800	39,25,700	43,64,500	48,37,400	50,79,300	53,37,600
Insurance cost	20,000	21,000	22,100	23,300	24,500	25,800	27,100
Administrative salaries and wages	16,92,000	17,76,600	18,65,500	19,58,800	20,56,800	21,59,700	22,67,700
Other Misc. Expenses [@1% of sales]	3,14,175	4,39,850	4,90,710	5,45,560	6,04,670	6,34,910	6,67,198
Total Cost	2,95,84,100	4,16,83,050	4,66,32,810	5,17,30,760	5,72,22,170	6,01,73,310	6,31,87,398



Profit Before Depreciation, Interest and Tax	23,65,900	25,14,958	25,24,393	29,18,206	33,45,016	33,68,944	35,32,415
Depreciation	4,40,750	3,83,925	3,34,695	2,92,014	2,54,982	2,22,828	1,94,888
Profit Before Interest and Tax	19,25,150	21,31,033	21,89,698	26,26,192	30,90,034	31,46,116	33,37,527
Interest on Term Loan	3,40,583	3,02,899	2,60,854	2,13,943	1,61,604	1,03,208	38,055
Interest on Working Capital Loan	1,25,118	1,25,118	1,25,118	1,25,118	1,25,118	1,25,118	1,25,118
Total Interest Paid	4,65,701	4,28,017	3,85,972	3,39,061	2,86,722	2,28,326	1,63,173
Profit Before Tax	14,59,449	17,03,017	18,03,727	22,87,131	28,03,312	29,17,789	31,74,354
Income Tax	2,50,335	3,23,405	3,53,618	4,98,639	6,53,494	6,87,837	7,64,806
Profit after Tax	12,09,114	13,79,612	14,50,109	17,88,492	21,49,819	22,29,953	24,09,548

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	2,09,500	2,93,300	3,27,200	3,63,800	4,03,200	4,23,300
Cash Inflow during the Period	85,96,956	24,55,844	20,70,367	25,00,677	28,55,955	26,43,224	28,45,705
Cash Outflow during the Period	83,87,456	23,72,044	20,36,467	24,64,077	28,16,555	26,23,124	28,24,505
Closing Cash & Bank Balance	2,09,500	2,93,300	3,27,200	3,63,800	4,03,200	4,23,300	4,44,500

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	3,40,583.31	6,66,238.11	3,25,654.80
2	3,02,898.91	6,66,238.11	3,63,339.20
3	2,60,853.72	6,66,238.11	4,05,384.39
4	2,13,943.11	6,66,238.11	4,52,295.00
5	1,61,604.06	6,66,238.11	5,04,634.05
6	1,03,208.40	6,66,238.11	5,63,029.71
7	38,055.26	6,66,238.11	6,28,182.86
Total	14,21,146.78	46,63,666.78	32,42,520.00



4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	3,14,17,500	4,39,85,000	4,90,71,000	5,45,56,000	6,04,67,000	6,34,91,000	6,66,66,000
Net Profit	12,09,114	13,79,612	14,50,109	17,88,492	21,49,819	22,29,953	24,09,548
Depreciation	4,65,701	4,28,017	3,85,972	3,39,061	2,86,722	2,28,326	1,63,173
Cash Accruals (a)	16,74,815	18,07,629	18,36,080	21,27,553	24,36,541	24,58,279	25,72,721
Principal	3,25,655	3,63,339	4,05,384	4,52,295	5,04,634	5,63,030	6,28,183
Interest	4,65,701	4,28,017	3,85,972	3,39,061	2,86,722	2,28,326	1,63,173
Total (b)	7,91,356	7,91,356	7,91,356	7,91,356	7,91,356	7,91,356	7,91,356
DSCR	2.12	2.28	2.32	2.69	3.08	3.11	3.25
Average DSCR	2.69						

Calculation of Break-Even Point (BEP)							
Sales	3,19,50,000	4,41,98,008	4,91,57,203	5,46,48,966	6,05,67,186	6,35,42,254	6,67,19,814
Variable Cost	2,53,22,925	3,63,29,750	4,07,80,710	4,53,43,360	5,02,60,570	5,28,63,410	5,55,07,598
Contribution	66,27,075	78,68,258	83,76,493	93,05,606	1,03,06,616	1,06,78,844	1,12,12,215
Fixed Cost	51,67,626	61,65,242	65,72,767	70,18,475	75,03,304	77,61,055	80,37,862
BEP Sales	2,49,13,806	3,46,31,731	3,85,72,087	4,12,17,346	4,40,93,426	4,61,80,551	4,78,30,389
Average BEP sales	3,96,34,191						

Calculation of Internal Rate of Return (IRR)					
Sl. No.	Year	PAT	Depreciation	Cash Accrual	
		Cash outflow at beginning			-55,88,800
1	31-03-2023	12,09,114	4,40,750	16,49,864	
2	31-03-2024	13,79,612	3,83,925	17,63,537	
3	31-03-2025	14,50,109	3,34,695	17,84,804	
4	31-03-2026	17,88,492	2,92,014	20,80,506	
5	31-03-2027	21,49,819	2,54,982	24,04,801	
6	31-03-2028	22,29,953	2,22,828	24,52,781	
7	31-03-2029	24,09,548	1,94,888	26,04,436	
IRR		28.83%			
Payback Period	3 Years 2 Month				



4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount (Rs)
1	Land Development	25,300
2	Civil Construction	18,57,500
3	Irrigation/Water Supply	-
4	Electrification	5,00,000
5	Plant & Machinery	12,00,000
6	Livestock	-
7	Insurance	20,000
8	DPR Cost	-
9	Other Misc. Exp.	-
	Total Fixed Cost	36,02,800
	Recurring	19,86,000
	Cost of Project	55,88,800



Detailed Project Report ***On*** ***Jute Based Industry (Jute Bags)***

Under MKUY

Name of the Entrepreneur/Entity:

Address:

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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Jute Based Industry (Jute Bags)
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	NA
4	Key components of the project	Manufacturing Jute Bags and Selling
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Jute Bags
7	Total Project Cost	Rs. 24,42,300
8	Fixed Capital Cost	Rs. 22,92,300
9	Working/Recurring capital	Rs. 1,50,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 23,97,300
12	Promoter Contribution (min 10% in case of bank loan)	Rs. 45,000
13	Assumed Rate of Interest	11%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators: 1. Average Annual Net Profit 2. Debt Service Coverage Ratio (DSCR) 3. Internal Rate of Return 4. Break Even Point (BEP)/Year	Rs. 8,33,412
		2.06
		30.08%
		3 Year 3 Month
17	Estimated employment to be generated (nos.)	12

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity

2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/: FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Society/Trust: Darpan Unique Id

2.2. Project Consultant Details

DPR Prepared by APTT

Please provide further details of consultant



2.3. Concept and Scope of the Project

Jute is an important cash crop, which is as an intercrop before paddy transplantation in most parts of the country. Jute Sector plays very important role in Indian Textile Industry. The global jute bag market reached a value of US\$ 1.4 Billion in 2016. Jute is the second most important fibre crop, after cotton. It is used in the production of numerous products such as curtains, chair coverings, carpets, area rugs, hessian cloth, and bags due to its versatile nature. Jute bags are biodegradable, recyclable, reusable, and non-toxic and have some unique physical properties like high tenacity, bulkiness, sound & heat insulation, and low thermal conductivity. Owing to these benefits, jute bags are widely being substituted for plastic bags across the globe.

Jute is a natural material that is in existence as a plant or vegetable fibre. It can be grown very easily. The fibre extracted can be spun into jute threads that is used by jute bag manufacturers to weave and develop jute fabric. The strength of jute fibre, soft texture, and shine has named it golden fibre. Jute is the Earth's strongest fibre.

Since centuries, India is into trading of jute products commercially. With the popularity and development of plastics, there came harms to environment and affected pollution level. As a result, eco-friendly products rose their demand.

Artificial plastics have their own disadvantages and thus they affect environmental pollution and cause harm to mother Earth. Jute in recent years has brought forward jute bags making it an excellent and profitable business idea.

The global jute bag market is growing on account of increasing environmental concerns, such as rising pollution levels, and depletion of ozone layer and important resources. This has prompted the consumers to shift towards environment-friendly products and adopt viable alternatives to harmful materials such as plastic. Jute sack bags dominate the market, accounting for most of the sales volume. Region-wise, India represents the leading producer of jute bags, holding most of the shares. Other major regions include Bangladesh and China.

Raw Materials

The raw materials required for printed and decorated jute shopping bags are

- Bamboo sticks
- Sewing thread for sewing the jute
- Dyes
- Hook
- Jute fabric
- Printing gum
- Chemicals and Auxiliary
- Handles
- Packing materials
- Labels

Manufacturing process & Source of Technology

The Woven jute fabric is procured from the market and spread on printing table and fixed by requisite auxiliaries/ingredients. Then it is printed by screen as per requisite design and colours. The printed fabric is washed and dried under sun light or through drier. The printed fabric is cut as per required design and sizes of the bag. The cut pieces are stitched by lock

stitch machine. Then the PVC buckle or bamboo stick etc. is attached manually. The bags are packed for marketing.

Presumption

- The cost in respect of plant and machinery, raw materials and selling price of finished product are those generally obtained at the time of preparation of project profile and may vary depending upon other various factors.
- The salary and wages of staff and labours has been taken as per present market rate.
- Production utilization capacity is considered initially at 75% of the total capacity. The time for achieving full envisaged capacity utilization is three years.
- Working days per year is considered 300 days and working hours is 8 hour per day considering single shift.
- The rate of interest on Bank loan has been considered as 11% p.a. which may vary from time to time.

3. Techno-commercial Assumptions

Sl.NO	Parameters	Value	Unit
1	Increase in Rate of Rent	5	%
2	Increase in fuel price	5	%
3	Collection from Debtors (First Year)	10	Days
4	Collection from Debtors	10	Days
5	Payable to Creditors	15	Days
6	Drawing By Promoter	40	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	10	Days
12	Finished Goods in stock (on sales)	5	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	20	%
15	Working Capital Requirement	15	Days
16	Working Capital Utilisation	100	%
17	No of working Days	300	Days

4. Financial Details

4.1. Project Fixed Capital

Details of Fixed Assets					
Sl. No.	Particulars	Unit	Qty.	Cost per unit (Rs)	Total (Rs)
A	Land				
1	Land Development	Sq. ft	4000	0.70	2,800
2	Fencing (Barbed wire)	ft	300	60.00	18,000
	Sub Total				20,800
B	Civil Construction				
1	Production area	sq. ft	2000	400.00	8,00,000
2	RM and FG Store	sq. ft	1000	400.00	4,00,000

Details of Fixed Assets					
Sl. No.	Particulars	Unit	Qty.	Cost per unit (Rs)	Total (Rs)
3	Office	sq. ft	200	850.00	1,70,000
4	Labour Shed	sq. ft	200	350.00	70,000
	Sub Total				14,40,000
C	Water Supply				
1	Water Supply with overhead tank, pump and pipeline				2,50,000
D	Electrification				
1	Electrical Installation (with transformer and DG Unit as required)				3,00,000

E Plant & Machinery					
Sl. No.	Particulars	Specification	Qty	Unit Price (Rs)	Total (Rs)
1	Wooden Printing Table		2	15,000	30,000
2	Screen of Diff. Design		30	600	18,000
3	Rubber Wiper		10	150	1,500
4	Dye Paste Stirrer		4	4,000	16,000
5	Water Drum		2	5,000	10,000
6	Cottage Steamer		1	20,000	20,000
7	Tubes, Steel, Spoons, Mugs, Bucket, Roper, Clips, Stools etc.		LS		7,000
8	Other Necessary Assets		LS		65,000
9	Lock Stitch Machine		6	15,000	90,000
10	Wooden Working Table		2	3,000	6,000
11	Cutting Table		1	5,000	5,000
12	Scissors, Measuring tape and other equipment		LS		3,000
	Total				2,71,500
F	Miscellaneous Expenditure				
1	Insurance premium of assets				10,000
2	Cost of DPR Preparation				
3	Other Misc. Exp				
	Total Misc. Exp				10,000

4.2. Project Variable Expenses

Details of Recurring Expenditure						
A	Details of raw material					
Sl. No.	Items	Unit	Rate per Unit (Rs)	Qty per day	Qty per Annum (kg)	Total (Rs)
1	Dye Stuff	kg	500	0.6	180	90,000
2	Printing Gum	kg	50	0.6	180	9,000
3	Chemicals & Auxiliaries	LS		LS	LS	30,000
4	Jute Fabric	Mts.	15	300	90,000	13,50,000
5	PVC Buckle/Bamboo Sticks	pcs	2	475	1,42,500	2,85,000
6	Sewing Thread	LS				30,000

Details of Recurring Expenditure						
A	Details of raw material					
Sl. No.	Items	Unit	Rate per Unit (Rs)	Qty per day	Qty per Annum (kg)	Total (Rs)
7	Packing Materials, Needle & Label etc	LS				30,000
	Total				2,32,860	18,24,000

Details of salary and other benefits				
Sl. No.	Type of workers	No. of Worker	Salary Per Month/head (Rs)	Total Salary per annum (Rs)
1	Manager cum Supervisor	1	15000	180000
2	Master Printer/Designer	1	15000	1,80,000
3	Master Cutter	1	12000	1,44,000
4	Skilled Printer	3	12000	4,32,000
5	Unskilled Worker	5	10000	6,00,000
	Total	12	64,000	15,36,000

4.3. Details of Sales

G	Details of sales					
Sl. No.	Type of products	Unit	Rate (Rs)	Quantity per day	Quantity per annum	Total (Rs)
1	Printed & Decorated Jute Shopping Bags	Nos.	140	250	35,000	49,00,000
	Total					49,00,000

4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	2,03,384	4,30,226	6,93,877	9,84,283	12,08,963	13,99,743
Add: Introduced	45,000						
Add: Profit	2,65,384	5,13,842	7,27,652	9,47,405	10,31,680	11,24,780	12,23,139
Less: Drawing	1,07,000	2,87,000	4,64,000	6,57,000	8,07,000	9,34,000	10,50,000
Closing Capital	2,03,384	4,30,226	6,93,877	9,84,283	12,08,963	13,99,743	15,72,882
Term Loan from Bank	20,48,585	17,93,403	15,08,692	11,91,034	8,36,617	4,41,188	-
Current Liabilities							
Cash Credit from Bank	1,20,000	1,20,000	1,20,000	1,20,000	1,20,000	1,20,000	1,20,000
Sundry Creditors	72,960	81,400	90,500	1,00,350	1,05,400	1,10,700	1,16,250
Expenses Payable	1,50,400	1,48,200	1,56,200	1,64,700	1,72,900	1,81,500	1,90,500
Current Provisions	810	19,085	72,538	1,38,174	1,74,292	2,14,191	2,56,345
Total Current Liabilities	3,44,170	3,68,685	4,39,238	5,23,224	5,72,592	6,26,391	6,83,095
Total Liabilities	25,96,138	25,92,314	26,41,807	26,98,540	26,18,172	24,67,322	22,55,978
Assets							
Fixed Assets	22,92,300	22,92,300	22,92,300	22,92,300	22,92,300	22,92,300	22,92,300
Less Depreciation	2,54,725	4,79,691	6,78,518	8,54,364	10,09,994	11,47,824	12,69,968
Net Fixed Assets	20,37,575	18,12,609	16,13,782	14,37,936	12,82,306	11,44,476	10,22,332
Current Assets							
Sundry Debtors	1,30,700	1,45,800	1,62,100	1,79,700	1,88,700	1,98,100	2,08,100
Inventories	1,14,033	1,19,633	1,33,300	1,47,950	1,60,133	1,68,133	1,76,550
Cash and Bank Balance	26,200	29,200	32,500	36,000	37,800	39,700	41,700
Other Current Assets	2,87,630	4,85,072	7,00,125	8,96,955	9,49,233	9,16,913	8,07,296
Total Current Assets	5,58,563	7,79,705	10,28,025	12,60,605	13,35,866	13,22,846	12,33,646
Total Assets	25,96,138	25,92,314	26,41,807	26,98,540	26,18,172	24,67,322	22,55,978

4.5 Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	1,69,000.00	85,725	2,54,725
	2	1,52,100.00	72,866	2,24,966
	3	1,36,890.00	61,936	1,98,826
	4	1,23,201.00	52,646	1,75,847
	5	1,10,880.90	44,749	1,55,630
	6	99,792.81	38,037	1,37,829
	7	89,813.53	32,331	1,22,145

4.6 Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	75	85	90	95	95	95	95
Revenue							
Sales	39,20,000	43,74,000	48,63,000	53,90,000	56,60,000	59,43,000	62,41,000
Opening Stock of Finished Goods	-	(65,333)	(72,900)	(81,050)	(89,833)	(94,333)	(99,050)
Closing Stock of Finished Goods	65,333	72,900	81,050	89,833	94,333	99,050	1,04,017
Total Income (A)	39,85,333	43,81,567	48,71,150	53,98,783	56,64,500	59,47,717	62,45,967
Expenditure							
Opening stock of Raw Material	-	48,700	54,300	60,400	66,900	70,300	73,800
Purchase (Net) of Material	14,59,200	16,28,000	18,10,000	20,07,000	21,08,000	22,14,000	23,25,000
Closing Stock of Raw material	48,700	54,300	60,400	66,900	70,300	73,800	77,500
Raw Material Consumption	14,10,500	16,22,400	18,03,900	20,00,500	21,04,600	22,10,500	23,21,300
Repair & Maintenance- Machinery (@2% of Cost)	22,715	23,200	23,700	24,200	24,700	25,200	25,800
Electricity expense	1,96,000	87,500	97,300	1,07,800	1,13,200	1,18,900	1,24,900
Insurance cost	10,000	10,500	11,100	11,700	12,300	13,000	13,700
Administrative salaries and wages	15,36,000	16,12,800	16,93,500	17,78,200	18,67,200	19,60,600	20,58,700
Other misc. Exp. (@1% on Sales)	39,200	43,740	48,630	53,900	56,600	59,430	62,410
Total Cost	32,14,415	34,00,140	36,78,130	39,76,300	41,78,600	43,87,630	46,06,810
Profit Before Depreciation, Interest and Tax	7,70,918	9,81,427	11,93,020	14,22,483	14,85,900	15,60,087	16,39,157
Depreciation	2,54,725	2,24,966	1,98,826	1,75,847	1,55,630	1,37,829	1,22,145

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	75	85	90	95	95	95	95
Profit Before Interest and Tax	5,16,193	7,56,460	9,94,194	12,46,636	13,30,270	14,22,257	15,17,012
Interest on Term Loan	2,39,200	2,12,733	1,83,204	1,50,257	1,13,498	72,486	26,727
Interest on Working Capital Loan	10,800	10,800	10,800	10,800	10,800	10,800	10,800
Total Interest Paid	2,50,000	2,23,533	1,94,004	1,61,057	1,24,298	83,286	37,527
Profit Before Tax	2,66,193	5,32,927	8,00,190	10,85,579	12,05,972	13,38,971	14,79,485
Income Tax	810	19,085	72,538	1,38,174	1,74,292	2,14,191	2,56,345
Profit after Tax	2,65,384	5,13,842	7,27,652	9,47,405	10,31,680	11,24,780	12,23,139

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	26,200	29,200	32,500	36,000	37,800	39,700
Cash Inflow during the Period	29,12,863	7,63,324	9,97,031	12,07,238	12,36,678	13,48,729	15,11,605
Cash Outflow during the Period	28,86,663	7,60,324	9,93,731	12,03,738	12,34,878	13,46,829	15,09,605
Closing Cash & Bank Balance	26,200	29,200	32,500	36,000	37,800	39,700	41,700

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	2,39,199.87	4,67,915.09	2,28,715.22
2	2,12,733.21	4,67,915.09	2,55,181.88
3	1,83,203.86	4,67,915.09	2,84,711.23
4	1,50,257.41	4,67,915.09	3,17,657.68
5	1,13,498.43	4,67,915.09	3,54,416.66
6	72,485.75	4,67,915.09	3,95,429.35
7	26,727.12	4,67,915.09	4,41,187.97
Total	9,98,105.66	32,75,405.66	22,77,300.00

4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	39,20,000	43,74,000	48,63,000	53,90,000	56,60,000	59,43,000	62,41,000
Net Profit	2,65,384	5,13,842	7,27,652	9,47,405	10,31,680	11,24,780	12,23,139
Interest Paid	2,50,000	2,23,533	1,94,004	1,61,057	1,24,298	83,286	37,527
Cash Accruals (a)	5,15,384	7,37,375	9,21,656	11,08,463	11,55,979	12,08,066	12,60,667
Principal	2,28,715	2,55,182	2,84,711	3,17,658	3,54,417	3,95,429	4,41,188
Interest	2,50,000	2,23,533	1,94,004	1,61,057	1,24,298	83,286	37,527
Total (b)	4,78,715	4,78,715	4,78,715	4,78,715	4,78,715	4,78,715	4,78,715
DSCR	1.08	1.54	1.93	2.32	2.41	2.52	2.63
Average DSCR	2.06						

Calculation of Internal Rate of Return (IRR)

Sl. No.	Year	PAT	Depreciation	Cash Accrual
	Cash outflow at beginning			
1	31-03-2023	2,65,384	2,54,725	5,20,109
2	31-03-2024	5,13,842	2,24,966	7,38,808
3	31-03-2025	7,27,652	1,98,826	9,26,478
4	31-03-2026	9,47,405	1,75,847	11,23,252
5	31-03-2027	10,31,680	1,55,630	11,87,310
6	31-03-2028	11,24,780	1,37,829	12,62,609
7	31-03-2029	12,23,139	1,22,145	13,45,284
IRR	30.08%			
Payback Period	3 Years 3 Months			

Calculation of Break-Even Point (BEP)

Year	I	II	III	IV	V	VI	VII
Sales	39,85,333	43,81,567	48,71,150	53,98,783	56,64,500	59,47,717	62,45,967
Variable Cost	14,49,700	16,66,140	18,52,530	20,54,400	21,61,200	22,69,930	23,83,710
Contribution	25,35,633	27,15,427	30,18,620	33,44,383	35,03,300	36,77,787	38,62,257
Fixed Cost	22,69,440	21,82,499	22,18,430	22,58,804	22,97,328	23,38,815	23,82,772
BEP Sales	35,66,949	35,21,644	35,79,883	36,46,351	37,14,559	37,82,332	38,53,372
Average BEP sales	36,66,442						

4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount
1	Land Development	20,800
2	Civil Construction	14,40,000
3	Irrigation/Water Supply	2,50,000
4	Electrification	3,00,000
5	Plant & Machinery	2,71,500
6	Livestock	-
7	Insurance	10,000
8	DPR Cost	-
9	Other Misc. Exp	-
	Total Fixed Cost	22,92,300
	Recurring	1,50,000
	Cost of Project	24,42,300



Detailed Project Report ***on*** ***Maize Processing Unit (Flour)***

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Mazie Flour Processing
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	1500 kgs/day
4	Key components of the project	Procurement, Cleaning, Milling and Packing
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Packed Maize Flour
7	Total Project Cost	Rs. 75,06,000
8	Fixed Capital Cost	Rs. 65,56,000
9	Working/Recurring capital	Rs. 9,50,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 64,70,400
12	Promoter Contribution (min 10% in case of bank loan)	Rs. 10,35,600
14	Assumed Rate of Interest	11%
15	Subsidy Eligibility (40%, 50%)	
16	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Monthly equated instalments for 7 years
17	Key Financial Indicators: 1. Average Annual Net Profit 2. Debt Service Coverage Ratio (DSCR) 3. Internal Rate of Return 4. Break Even Point (BEP)	Rs. 22,25,377
		2.11
		26.70%
		3 Years and 6 Months
18	Estimatsed employment to be generated (nos.)	11

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
	Farmer Id of Individual, if available	
17	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/ FPO: , Proprietorship firm: Registration Certificate under Shops & Establishment Act,
Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC):
Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of
Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by:

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Product

Maize is one of the top three important crops in India, ranking after rice and wheat. It is widely applied in food process, diet cooking, feed products and industrial fuel raw material. The development of maize processing has a direct contribution to the economy in India.

Maize processing industry in India is largely influenced by the price of maize, the consumption and its supply. With the increasing use for alcohol production, the consumption of maize will go over its supply. The agricultural department in India predicts that the price of maize may continue to rise in the short terms. The increasing need of maize industrial use largely encourages the development of maize processing industry in India, and meanwhile the price of downstream products such as feeding products, and maize flour product.

For the maize processing factory owners, keeping an eye on the maize price in India and global market and government export-import policy is an important measure to deal with the potential risk. Maize processing in India is correlated with the price of raw material, the global market situation. The continuous rise of maize will lead to a great change in a series of maize processing industry such as maize flour mill factory, feed product, industrial fuel and poultry feed.

Market Potential

Maize Flour market is estimated to be valued at 1.37 Billion in 2018 and is estimated to grow at a CAGR of 3.9% during the forecast period 2019–2024. India Corn Starch market growth can be attributed to the easy availability of corn and its wide range of applications in various industries such as food and beverage, pharmaceutical, animal feed, textile industry, paper industry, and others. The Food and Beverage industry dominated the application segment of India Corn Starch Market. The rapid growth of population, as well as rapid industrialization, have propelled the growth of India corn starch market. Even the increase in local food stalls and restaurants has increased the demand of Maize/Corn flour for making various eatable products.

Raw Material

The only major raw material required for Maize Flour Production is Maize Corn. The process flow chart for Maize processing is mentioned below:

Procurement: Dried maize kernels are procured from appropriate vendors and stored in raw material warehouse for normal plant operation.

Cleaning and conditioning: Cleaning and conditioning of the maize is an important step in the process and refers to the removal of foreign material and all that is not maize kernels from the to-be milled grain that lowers the quality of the product such as husk, straw, dust, sand, and everything too big or too small and lighter than a maize kernel. It also refers to the removal of other seeds, and material harmful to the milling equipment such as metal and stones. Cleaning Process involves an array of cleaning machine vibro separator, aspirators, destoners, magnetic separators etc. Each of this machine has its own contribution to cleaning effect.

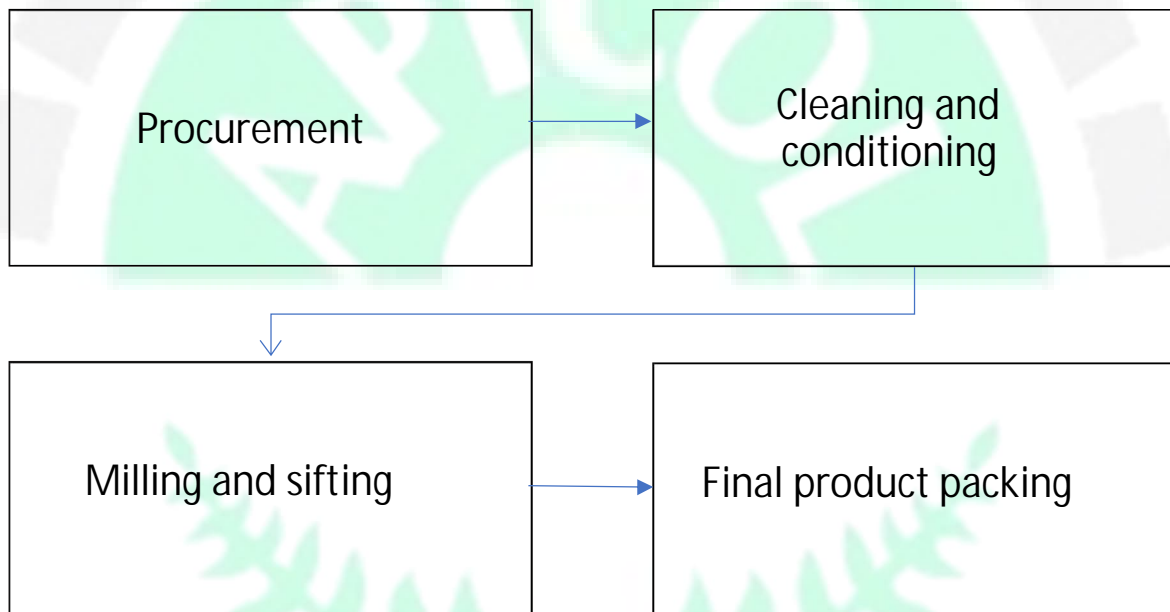
Conditioning refers to the addition of moisture to the maize to allow the bran to be peeled off inflakes during milling with plate or roller mills, allowing easy separation in a sifter and, most importantly, to add mass to the meal



Milling and sifting: Roller type flour mills are used to grinding the grain, the different roller mills single roller mill, double roller mill and pneumatic roller mill, the mill adopted defines quality of flour produced. In a complete maize milling plant, there are several roller mills that work together, they have different functions, the first mill mainly primary grinding & separation of the hard outer covering, the second and third will grinding the maize into granular size, and meanwhile to get some super fine flour, and the granular sized product will go to the next mill to continue grinding.

After each successive grinding double bin sifter or square plan sifter are used to sift the meal from the miller, classification and sifting more super flour. In general, the sifting is used to separate the flour and bran, also separate large size and small size to ensure flour quality. This process of grinding, sifting & blending flour is repeated until required quality flour is obtained.

Final product packing: After the maize is processed, it will come out in different final products like flour and grits. They are different from their granular size. For the packing, a Flour packing machine is used, and the flour is packed into 1 kg, 5 kg, 10 kg, 25 kg or 50 kg bags as per the requirement.




Types of Machines and Equipment's for the Mazie flour mill unit

<p>Vibrating Separator</p>	<p>It's composed of a vibrating sieve, powered by an exciter which is in turn is powered by an appropriate motor which is used to remove most of the dirt & large impurities from given grain.</p>	
<p>Destoner</p>	<p>It's a machine which is used to remove stones from the given grain, widely used in various grain mills in cleaning section.</p>	
<p>Disc Separator</p>	<p>It's a separator class machine, generally used to remove foreign grains from required grain efficiently.</p>	

<p>Magnetic Separator</p>	<p>It's a type of separator which is used to magnetic impurities from given product using powerful electromagnets, used in wide range of industries for separation.</p>	
<p>Aspirator</p>	<p>It's a more fine-tuned separator designed to remove finer impurities like remaining dirt, similar sized impurities, leaves etc.</p>	
<p>Heavy duty Pulveriser Mill</p>	<p>It basically a grinder class machine, which may employ any possible grinding arrangement to achieve, required grinding as per product to be grinded.</p>	
<p>Flour Sifter Machine</p>	<p>It's basically an industrial version of the sieve used to sieve out, large fibers, particles etc, to achieve required particle size in flour.</p>	



Packet Filling & Packaging Machine	<p>It's a simple packaging machine, designed to fill the given food grade plastic material's continuous pouch with required product aftersealing one end & after filling sealing the other end also to generate packet of product.</p>	
-----------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	8	%
3	Collection from Debtors (First Year)	10	Days
4	Collection from Debtors	10	Days
5	Payable to Creditors	15	Days
6	Drawing By Promoter	30	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	15	Days
12	Finished Goods in stock (on sales)	5	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	30	%
15	Working Capital Requirement	1	Months
16	Working Capital Utilisation	100	%
17	Working Days per Annum	295	Days
18	Yield of Flour	90	%

4. Financial Details

4.1. Project Fixed Capital

Details of Fixed Assets					
Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total (Rs)
A	Land				
1	Land Development	sq. ft	10000	0.70	7,000
2	Site Renovation	ft	400	60.00	24,000
	Sub Total				31,000
B	Civil Construction				
1	Plant Processing area	sq. ft	4000	400.00	16,00,000
2	RM and FG Store	sq. ft	1500	400.00	6,00,000



Details of Fixed Assets					
Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total (Rs)
3	Office	sq. ft	400	850.00	3,40,000
4	Labour Shed	sq. ft	200	350.00	70,000
	Sub Total				26,10,000
C	Water Supply				
1	Water Supply with overhead tank, pump and pipeline				2,50,000
D	Electrification				
1	Electrical Installation (with transformer and DG Unit as required)				5,00,000
E	Plant & Machinery				
Sl. No.	Particulars	Specification	Qty	Unit Price	total
1	Vibrating Separator	(200 kg/hr)	1	3,50,000	3,50,000
2	De-stoner	(300 kg/hr)	1	3,65,000	3,65,000
3	Disc Separator	(200 kg/hr)	1	2,20,000	2,20,000
4	Magnetic Separator		1	2,00,000	2,00,000
5	Aspirator		1	2,00,000	2,00,000
6	Heavy duty Pulveriser Mill	(250 kg/hr)	1	5,00,000	5,00,000
7	Flour Sifter Machine	(300 kg/hr)	1	3,00,000	3,00,000
8	Packet Filling & Packaging Machine		1	10,00,000	10,00,000
	Total				31,35,000
F	Miscellaneous Expenditure				
1	Insurance premium on fixed asset				30,000
	DPR Cost				
	Other Misc. Exp.				
	Total Misc. Exp				30,000

4.2. Project Variable Expenses

Details of Recurring Expenditure						
A	Details of raw material					
Sl. No.	Items	Unit	Rate/Unit (Rs)	Qty/Day	Qty/Annum	Total Cost (Rs)
1	Maize Corn	Kg	23.00	1,800	5,31,000	1,22,13,000
2	Packaging and Printing Cost	No.	15.00	28	8,363	1,25,499
	Total				4,50,863	1,03,02,949

Details of salary and other benefits				
Sl. No.	Type of workers	No. of Worker	Salary Per Month/head (Rs)	Total Salary per annum (Rs)
1	Supervisors	1	15,000	1,80,000
2	Skilled Worker	3	12,000	4,32,000



Details of salary and other benefits				
Sl. No.	Type of workers	No. of Worker	Salary Per Month/head (Rs)	Total Salary per annum (Rs)
3	Purchase and store	1	12,000	1,44,000
4	Unskilled worker	6	8,000	5,76,000
5	Grand Total	11	47,000	13,32,000

4.3. Details of Sales

Details of sales						
Sl. No.	Type of products	Unit	Rate/Unit (Rs)	Quantity per day	Quantity per annum	Total (Rs)
1	Maize Corn Flour	Kg	45.00	1,350	3,98,250	1,79,21,250
	Total			1,350	3,98,250	1,79,21,250



4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	17,34,576	20,42,876	27,15,997	35,08,919	44,27,019	52,49,294
Add: Introduced	10,35,600						
Add: Profit	9,98,976	11,84,300	18,37,121	22,96,922	28,16,100	30,72,274	33,71,945
Less: Drawing	3,00,000	8,76,000	11,64,000	15,04,000	18,98,000	22,50,000	25,87,000
Closing Capital	17,34,576	20,42,876	27,15,997	35,08,919	44,27,019	52,49,294	60,34,238
Term Loan from Bank	52,22,348	45,71,827	38,46,028	30,36,240	21,32,744	11,24,697	-
Current Liabilities							
Cash Credit from Bank	6,65,000	6,65,000	6,65,000	6,65,000	6,65,000	6,65,000	6,65,000
Sundry Creditors	3,09,088	4,05,700	4,82,800	5,36,800	5,95,000	6,24,750	6,56,000
Expenses Payable	2,14,000	2,48,300	2,77,100	2,99,700	3,23,700	3,39,900	3,57,100
Current Provisions	-	6,68,271	9,48,052	11,45,109	13,67,614	14,77,403	16,05,833
Total Current Liabilities	11,88,088	19,87,271	23,72,952	26,46,609	29,51,314	31,07,053	32,83,933
Total Liabilities	81,45,013	86,01,974	89,34,976	91,91,768	95,11,077	94,81,044	93,18,172
Assets							
Fixed Assets	65,56,000	65,56,000	65,56,000	65,56,000	65,56,000	65,56,000	65,56,000
Less Depreciation	8,31,250	14,41,725	20,67,328	26,10,674	30,82,942	34,93,753	38,51,386
Net Fixed Assets	57,24,750	51,14,275	44,88,672	39,45,326	34,73,058	30,62,247	27,04,614
Current Assets							
Sundry Debtors	3,58,500	4,70,500	5,59,900	6,22,500	6,89,900	7,24,400	7,60,600
Inventories	4,96,650	5,94,850	7,30,203	8,30,561	9,21,592	9,86,180	10,35,522
Cash and Bank Balance	71,700	94,100	1,12,000	1,24,500	1,38,000	1,44,900	1,52,200
Other Current Assets	14,93,413	23,28,249	30,44,201	36,68,881	42,88,528	45,63,317	46,65,235
Total Current Assets	24,20,263	34,87,699	44,46,305	52,46,442	60,38,020	64,18,797	66,13,557
Total Assets	81,45,013	86,01,974	89,34,976	91,91,768	95,11,077	94,81,044	93,18,172



4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	2,86,000	5,45,250	8,31,250
	2	2,57,400	4,63,463	7,20,863
	3	2,31,660	3,93,943	6,25,603
	4	2,08,494	3,34,852	5,43,346
	5	1,87,645	2,84,624	4,72,269
	6	1,68,880	2,41,930	4,10,810
	7	1,51,992	2,05,641	3,57,633

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	60	75	85	90	95	95	95
Revenue							
Sales	1,07,52,750	1,41,13,000	1,67,95,000	1,86,73,000	2,06,96,000	2,17,31,000	2,28,18,000
Opening Stock of Finished Goods	-	(1,82,250)	(2,39,203)	(2,84,661)	(3,16,492)	(3,50,780)	(3,68,322)
Closing Stock of Finished Goods	1,82,250	2,39,203	2,84,661	3,16,492	3,50,780	3,68,322	3,86,746
Total Income (A)	1,09,35,000	1,41,69,953	1,68,40,458	1,87,04,831	2,07,30,288	2,17,48,542	2,28,36,424
Expenditure							
Opening stock of Raw Material	-	3,14,400	4,12,600	4,91,000	5,45,900	6,05,100	6,35,400
Purchase (Net) of Material	61,81,769	81,14,000	96,56,000	1,07,36,000	1,19,00,000	1,24,95,000	1,31,20,000
Closing Stock of Raw material	3,14,400	4,12,600	4,91,000	5,45,900	6,05,100	6,35,400	6,67,200
Raw Material Consumption	58,67,369	80,15,800	95,77,600	1,06,81,100	1,18,40,800	1,24,64,700	1,30,88,200
Repair & Maintenance- Machinery (@5% of Cost)	1,30,500	1,37,100	1,44,000	1,51,200	1,58,800	1,66,800	1,75,200
Electricity expense	8,60,220	11,29,100	13,43,600	14,93,900	16,55,700	17,38,500	18,27,000
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500
Administrative salaries and wages	13,32,000	13,98,600	14,68,600	15,42,100	16,19,300	17,00,300	17,85,400
Other Misc Expenses [@2% of sales]	2,15,055	2,82,260	3,35,900	3,73,460	4,13,920	4,34,620	4,56,728



Total Cost	84,35,144	1,09,94,360	1,29,02,800	1,42,76,560	1,57,25,120	1,65,43,420	1,73,73,028
Profit Before Depreciation, Interest and Tax	24,99,856	31,75,593	39,37,658	44,28,271	50,05,168	52,05,122	54,63,395
Depreciation	8,31,250	7,20,863	6,25,603	5,43,346	4,72,269	4,10,810	3,57,633
Profit Before Interest and Tax	16,68,606	24,54,731	33,12,055	38,84,925	45,32,900	47,94,312	51,05,762
Interest on Term Loan	6,09,780	5,42,309	4,67,032	3,83,043	2,89,336	1,84,784	68,134
Interest on Working Capital Loan	59,850	59,850	59,850	59,850	59,850	59,850	59,850
Total Interest Paid	6,69,630	6,02,159	5,26,882	4,42,893	3,49,186	2,44,634	1,27,984
Profit Before Tax	9,98,976	18,52,571	27,85,173	34,42,032	41,83,714	45,49,678	49,77,778
Income Tax	-	6,68,271	9,48,052	11,45,109	13,67,614	14,77,403	16,05,833
Profit after Tax	9,98,976	11,84,300	18,37,121	22,96,922	28,16,100	30,72,274	33,71,945

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	71,700	2,04,488	2,22,387	2,34,888	2,48,388	2,55,288
Cash Inflow during the Period	89,76,263	27,04,345	28,48,404	31,13,925	35,93,073	36,38,824	39,06,458
Cash Outflow during the Period	89,04,563	25,71,558	28,30,504	31,01,425	35,79,573	36,31,924	38,99,158
Net Cash Inflow	71,700	1,32,788	17,900	12,500	13,500	6,900	7,300
Closing Cash & Bank Balance	71,700	2,04,488	2,22,387	2,34,888	2,48,388	2,55,288	2,62,588

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	6,09,780	11,92,831	5,83,052
2	5,42,309	11,92,831	6,50,522
3	4,67,032	11,92,831	7,25,799
4	3,83,043	11,92,831	8,09,788
5	2,89,336	11,92,831	9,03,496
6	1,84,784	11,92,831	10,08,047
7	68,134	11,92,831	11,24,697
Total	25,44,418	83,49,818	58,05,400



4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	1,07,52,750	1,41,13,000	1,67,95,000	1,86,73,000	2,06,96,000	2,17,31,000	2,28,18,000
Net Profit	9,98,976	11,84,300	18,37,121	22,96,922	28,16,100	30,72,274	33,71,945
Interest Paid	6,69,630	6,02,159	5,26,882	4,42,893	3,49,186	2,44,634	1,27,984
Cash Accruals (a)	16,68,606	17,86,459	23,64,003	27,39,815	31,65,285	33,16,909	34,99,929
Principal	5,83,052	6,50,522	7,25,799	8,09,788	9,03,496	10,08,047	11,24,697
Interest	6,69,630	6,02,159	5,26,882	4,42,893	3,49,186	2,44,634	1,27,984
Total (b)	12,52,681	12,52,681	12,52,681	12,52,681	12,52,681	12,52,681	12,52,681
DSCR	1.33	1.43	1.89	2.19	2.53	2.65	2.79
Average DSCR	2.11						

Calculation of Break-Even Point (BEP)							
Sales	1,09,35,000	1,41,69,953	1,68,40,458	1,87,04,831	2,07,30,288	2,17,48,542	2,28,36,424
Variable Cost	60,82,424	82,98,060	99,13,500	1,10,54,560	1,22,54,720	1,28,99,320	1,35,44,928
Contribution	48,52,576	58,71,893	69,26,958	76,50,271	84,75,568	88,49,222	92,91,495
Fixed Cost	38,53,600	40,19,322	41,41,785	42,08,239	42,91,854	42,99,545	43,13,717
BEP Sales	86,83,865	96,99,360	1,00,69,291	1,02,89,100	1,04,97,393	1,05,66,898	1,06,02,154
Average BEP sales	1,00,58,294						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
	Cash outflow at beginning			
1	31-03-2023	9,98,976	8,31,250	18,30,226
2	31-03-2024	11,84,300	7,20,863	19,05,162
3	31-03-2025	18,37,121	6,25,603	24,62,724
4	31-03-2026	22,96,922	5,43,346	28,40,268
5	31-03-2027	28,16,100	4,72,269	32,88,368
6	31-03-2028	30,72,274	4,10,810	34,83,085
7	31-03-2029	33,71,945	3,57,633	37,29,578
IRR		26.70%		
Payback Period	3 Years 6 Months			



4.10. Summary of Financial Details

SI. No.	Name of Assets	Amount
1	Land Development	31,000
2	Civil Construction	26,10,000
3	Irrigation/Water Supply	2,50,000
4	Electrification	5,00,000
5	Plant & Machinery	31,35,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	-
9	Other Misc. Exp	-
	Total Fixed Cost	65,56,000
	Recurring	9,50,000
	Total Cost of Project	75,06,000



Detailed Project Report ***on*** ***Millet Processing (Millet Flour)***

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Ragi, Small Millets, Coarse Cereal Processing
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	5 MT/day
4	Key components of the project	Sorting, grading, dehulling and Milling
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	
7	Total Project Cost	Rs. 81,83,800
8	Fixed Capital Cost	Rs. 57,76,800
9	Working/Recurring capital	Rs. 24,07,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 54,39,820
12	Promoter Contribution (min 10% in case of bank loan)	Rs. 47,43,980
13	Assumed Rate of Interest	11%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators: 1. Average Annual Net Profit 2. Debt Service Coverage Ratio (DSCR) 3. Internal Rate of Return 4. Break Even Point (BEP)/Year	Rs. 24,53,249
		2.57
		26.29%
		3 Year 4 Month
17	Estimated employment to be generated (nos.)	15

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/: FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by:

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Millets are known as ‘Nutricereals’ as they are bestowed with wealth of nutrients including proteins, vitamins, minerals, antioxidants, flavonoids etc. It gained international recognition as United Nations (UN) has declared 2023 as ‘International Year of Millets’. Millets are adapted to a wide range of ecological conditions and are less input intensive. They are climate resilient and suitable for dryland farming.

English	Hindi	Odia
Pearl Millet	Baira	Baira
Foxtail Millet	Kangni, Kakum, Rala	Kanghu, Kangam, Kora
Kodo Millet	Koden, Kodra	Kodua
Little Millet	Kutki, Shavan	Suan
Barn Yard Millet	Jhangora, Sanwa	Khira
Sorghum	Jowar	Juara
Finger Millet	Nachani, Mundua, Mandika, Marwah	Mandia

Value added Products

Many value added products can be made from millet, some of the are -

 <p>Millet RTE Snacks</p>	 <p>Millet Khichdi Mix</p>
 <p>Millet Muffins</p>	 <p>Millet Pasta</p>
 <p>Millet Murki</p>	 <p>Millet Mixture</p>

 <p>Millet Laddu</p>	 <p>Millet Modak</p>
 <p>Millet Cookies</p>	 <p>Millet Flour</p>

Scope

The project is prepared for primary processing (destoning, grading, dehulling), Secondary processing (flour making) and packing different types of millet. The following process flow is followed in the typical millet processing unit.

Market Potential

The Global Millet Market size was worth US\$ 10.26 billion in 2022, and it is anticipated to reach US\$ 13.87 billion by 2028, progressing with an annual development rate (CAGR) of 4.66% between 2023 and 2028. Millet is usually a small seed crop and is known for its high nutritional value. All over the world, there are varieties of millet of various colors, such as white, gray, pale yellow and red. They outperform mainstream grains such as rice and wheat in terms of nutrition. The trend of interest in reactivating the consumption of millet in several countries favors the growth prospects of this market in recent years. There are several plans to improve the cultivation and consumption of millet to reduce the health risks from diabetes, obesity and cardiovascular disease. Millet plays an important role in many countries in Africa and Asia when it comes to food security and the economy. It is gaining popularity in Europe and North America due to its gluten-free and hypoglycemic properties. Millet is a small grain seed that retains its excellent nutritional properties. In terms of nutritional properties, it is superior to certain high-consumption grains such as rice and wheat.

By application, the millet market is segmented into bakery products, baby food, steamed products, porridge, bread, breakfast foods, beverages and animal feed. Porridge and steamed dishes have been some of the main products traditionally cooked in millet. They are mainly consumed in India and other parts of Africa. It is a food that is commonly prepared with oat millet. Sorghum and other sorghum-producing countries generally consume thick, tough porridge. Bakery products, including packaged cookies, are becoming increasingly important as they are easily accessible in supermarkets, hypermarkets, and ecommerce sites, especially in Asia Pacific countries.



3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	5	%
3	Collection from Debtors (First Year)	15	Days
4	Collection from Debtors	15	Days
5	Payable to Creditors	20	Days
6	Drawing By Promoter	25	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	15	Days
12	Finished Goods in stock (on sales)	5	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	90	%
15	Working Capital Requirement	15	Days
16	Working Capital Utilisation	100	%
17	No. of working days	290	Days
18	Yield of Flour	85	%
19	Millet Flour production (percentage of volume)	50	%
20	Yield of whole grain	90	%

1. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total (Rs.)
A	Land				
1	Land Development	sq. ft	6000	0.70	4,200
2	Fencing (Barbed wire)	ft	335	60.00	20,100
	Sub Total				24,300
B	Civil Construction				
1	Processing area	sq. ft	2000	400.00	8,00,000
2	RM and FG store	sq. ft	2000	400.00	8,00,000
3	Office	sq. ft	200	850.00	1,70,000



Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total (Rs.)
4	Labour Shed	sq. ft	250	350.00	87,500
	Sub Total				18,57,500
C	Water Supply				
1	Water Supply with overhead tank and pump				2,00,000
D	Electrification				
1	Electrical Installation with transformer and DG				5,00,000

E Plant & Machinery					
Sl. No.	Particulars	Specification	Qty	Unit Price	total
1	Destoner cum grader cum aspirator	500 kg/hr	1	11,00,000	11,00,000
2	Double stage centrifugal dehuller	300 kg/hr	1	2,00,000	2,00,000
3	Gravity Separator	250 kg/hr	1	3,50,000	3,50,000
4	Pulveriser	100 kg/hr	2	2,00,000	4,00,000
5	Polisher	100 kg/hr	2	1,50,000	3,00,000
6	Flour packing machine	5 to 10 kg bag	1	5,00,000	5,00,000
7	Millet packing machine	25 - 50 kg bag	1	3,00,000	3,00,000
8	Stitching machine		1	15,000	15,000
	Total				31,65,000
F	Miscellaneous Expenditure				
1	Insurance premium of assets				30000
2	DPR Cost				
3	Other Misc. Exp.				
	Total Misc. Exp				30000

4.2. Project Variable Expenses

Details of raw material						
Sl. No.	Items	Unit	Rate/Unit (Rs)	Qty/day (Kg)	Qty/annum (kg)	Total (Rs)
1	Pearl Millet	Kg	25	1,000	2,90,000	72,50,000
2	Sorghum	Kg	30	1,000	2,90,000	87,00,000
3	Finger Millet	Kg	30	1,000	2,90,000	87,00,000
4	Foxtail Millet	Kg	40	1,000	2,90,000	1,16,00,000
5	Little Millet	Kg	50	1,000	2,90,000	1,45,00,000
6	Packing Material	No	5	1,181	3,42,563	17,12,813
	Total				17,92,563	5,24,62,813

Details of Salary and Other Benefits

Sl. No.	Type of workers	No. of Worker	Salary Per Month/head (Rs)	Total Salary per annum (Rs)
1	Supervisor	1	15000	180000
2	Unskilled	10	8000	960000
3	Skilled	3	12,000	4,32,000
4	Purchase and Store	1	12,000	1,44,000
	Grand Total	15	47000	17,16,000



4.3. Details of Sales

G						
Details of sales						
Sl. No.	Type of products	Unit	Rate per Unit (Rs)	Quantity per day	Quantity per annum	Total (Rs)
1	Pearl Millet flour	Kg	50	425	1,23,250	61,62,500
2	Sorghum Flour	Kg	50	425	1,23,250	61,62,500
3	Finger Millet Flour	Kg	50	425	1,23,250	61,62,500
4	Foxtail Millet Flour	Kg	60	425	1,23,250	73,95,000
5	Little Millet Flour	Kg	80	425	1,23,250	98,60,000
6	Whole Pearl Millet	Kg	35	450	1,30,500	45,67,500
7	Whole Sorghum	Kg	40	450	1,30,500	52,20,000
8	Whole Finger Millet	Kg	40	450	1,30,500	52,20,000
9	Whole Foxtail Millet	Kg	50	450	1,30,500	65,25,000
10	Whole Little Millet	Kg	60	450	1,30,500	78,30,000
	Total				12,68,750	6,51,05,000



4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	34,29,852	42,50,136	47,37,763	51,83,064	60,18,196	70,64,841
Add: Introduced	27,43,980						
Add: Profit	9,14,872	22,38,283	20,67,627	21,74,302	28,42,132	34,01,645	35,33,884
Less: Drawing	2,29,000	14,18,000	15,80,000	17,29,000	20,07,000	23,55,000	26,50,000
Closing Capital	34,29,852	42,50,136	47,37,763	51,83,064	60,18,196	70,64,841	79,48,725
Term Loan from Bank	46,76,959	40,94,374	34,44,372	27,19,154	19,10,014	10,07,241	-
Current Liabilities							
Cash Credit from Bank	2,40,700	2,40,700	2,40,700	2,40,700	2,40,700	2,40,700	2,40,700
Sundry Creditors	17,48,760	29,37,933	32,77,667	34,41,600	38,26,267	42,40,800	44,52,867
Expenses Payable	4,48,700	6,13,600	6,74,200	7,07,900	7,76,300	8,49,800	8,92,800
Current Provisions	5,52,802	11,19,979	10,46,840	10,92,558	13,78,771	16,18,562	16,75,236
Total Current Liabilities	29,90,963	49,12,212	52,39,407	54,82,758	62,22,037	69,49,862	72,61,603
Total Liabilities	1,10,97,774	1,32,56,721	1,34,21,542	1,33,84,976	1,41,50,247	1,50,21,944	1,52,10,328
Assets							
Fixed Assets	57,76,800	57,76,800	57,76,800	57,76,800	57,76,800	57,76,800	57,76,800
Less Depreciation	7,55,500	13,04,925	18,68,777	23,56,384	27,78,349	31,43,770	34,60,452
Net Fixed Assets	50,21,300	44,71,875	39,08,023	34,20,416	29,98,451	26,33,030	23,16,348
Current Assets							
Sundry Debtors	16,27,700	27,34,500	30,50,700	32,03,200	35,61,300	39,47,100	41,44,500
Inventories	18,54,142	27,46,042	33,69,783	35,98,083	39,37,433	43,67,683	46,55,400
Cash and Bank Balance	3,25,600	5,46,900	6,10,200	6,40,700	7,12,300	7,89,500	8,28,900
Other Current Assets	22,69,032	27,57,404	24,82,835	25,22,576	29,40,763	32,84,630	32,65,180
Total Current Assets	60,76,474	87,84,846	95,13,519	99,64,560	1,11,51,796	1,23,88,913	1,28,93,980
Total Assets	1,10,97,774	1,32,56,721	1,34,21,542	1,33,84,976	1,41,50,247	1,50,21,944	1,52,10,328



4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	2,05,750.00	5,49,750	7,55,500
	2	1,85,175.00	4,67,288	6,52,463
	3	1,66,657.50	3,97,194	5,63,852
	4	1,49,991.75	3,37,615	4,87,607
	5	1,34,992.58	2,86,973	4,21,966
	6	1,21,493.32	2,43,927	3,65,420
	7	1,09,343.99	2,07,338	3,16,682

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	50	80	85	85	90	95	95
Revenue							
Sales	3,25,52,500	5,46,89,000	6,10,13,000	6,40,64,000	7,12,25,000	7,89,42,000	8,28,90,000
Opening Stock of Finished Goods	-	(5,42,542)	(9,11,483)	(10,16,883)	(10,67,733)	(11,87,083)	(13,15,700)
Closing Stock of Finished Goods	5,42,542	9,11,483	10,16,883	10,67,733	11,87,083	13,15,700	13,81,500
Total Income (A)	3,30,95,042	5,50,57,942	6,11,18,400	6,41,14,850	7,13,44,350	7,90,70,617	8,29,55,800
Expenditure							
Opening stock of Raw Material	-	13,11,600	22,03,500	24,58,300	25,81,200	28,69,700	31,80,600
Purchase (Net) of Material	2,62,31,406	4,40,69,000	4,91,65,000	5,16,24,000	5,73,94,000	6,36,12,000	6,67,93,000
Closing Stock of Raw material	13,11,600	22,03,500	24,58,300	25,81,200	28,69,700	31,80,600	33,39,700
Raw Material Consumption	2,49,19,806	4,31,77,100	4,89,10,200	5,15,01,100	5,71,05,500	6,33,01,100	6,66,33,900
Repair & Maintenance- Machinery (@1% of Cost)	57,525	60,500	63,600	66,800	70,200	73,800	77,500
Electricity expense	26,04,200	43,75,200	48,81,100	51,25,200	56,98,000	63,15,400	66,36,500
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500
Administrative salaries and wages	17,16,000	18,01,800	18,91,900	19,86,500	20,85,900	21,90,200	22,99,800
Other Misc Expenses [@3% of sales]	9,76,575	10,93,780	12,20,260	12,81,280	14,24,500	15,78,840	16,59,116
Total Cost	3,03,04,106	5,05,39,880	5,70,00,160	5,99,95,680	6,64,20,700	7,34,97,840	7,73,47,316



Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	50	80	85	85	90	95	95
Profit Before Depreciation, Interest and Tax	27,90,935	45,18,062	41,18,240	41,19,170	49,23,650	55,72,777	56,08,484
Depreciation	7,55,500	6,52,463	5,63,852	4,87,607	4,21,966	3,65,420	3,16,682
Profit Before Interest and Tax	20,35,435	38,65,599	35,54,388	36,31,563	45,01,684	52,07,356	52,91,802
Interest on Term Loan	5,46,098	4,85,674	4,18,258	3,43,041	2,59,119	1,65,486	61,019
Interest on Working Capital Loan	21,663	21,663	21,663	21,663	21,663	21,663	21,663
Total Interest Paid	5,67,761	5,07,337	4,39,921	3,64,704	2,80,782	1,87,149	82,682
Profit Before Tax	14,67,674	33,58,262	31,14,467	32,66,859	42,20,902	50,20,207	52,09,121
Income Tax	5,52,802	11,19,979	10,46,840	10,92,558	13,78,771	16,18,562	16,75,236
Profit after Tax	9,14,872	22,38,283	20,67,627	21,74,302	28,42,132	34,01,645	35,33,884

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	3,25,600	6,49,938	7,13,238	7,43,738	8,15,338	8,92,538
Cash Inflow during the Period	1,18,53,274	48,11,995	32,45,781	29,05,260	40,03,377	44,94,890	41,81,757
Cash Outflow during the Period	1,15,27,674	44,87,658	31,82,481	28,74,760	39,31,777	44,17,690	41,42,357
Closing Cash & Bank Balance	3,25,600	6,49,938	7,13,238	7,43,738	8,15,338	8,92,538	9,31,938

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	5,46,097.94	10,68,259.22	5,22,161.28
2	4,85,674.04	10,68,259.22	5,82,585.18
3	4,18,257.96	10,68,259.22	6,50,001.26
4	3,43,040.57	10,68,259.22	7,25,218.65
5	2,59,119.12	10,68,259.22	8,09,140.10
6	1,65,486.37	10,68,259.22	9,02,772.85
7	61,018.54	10,68,259.22	10,07,240.68
Total	22,78,694.54	74,77,814.54	51,99,120.00



4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	3,25,52,500	5,46,89,000	6,10,13,000	6,40,64,000	7,12,25,000	7,89,42,000	8,28,90,000
Net Profit	9,14,872	22,38,283	20,67,627	21,74,302	28,42,132	34,01,645	35,33,884
Interest Paid	5,67,761	5,07,337	4,39,921	3,64,704	2,80,782	1,87,149	82,682
Cash Accruals (a)	14,82,633	27,45,621	25,07,548	25,39,005	31,22,914	35,88,794	36,16,566
Interest Paid	8,78,044	7,83,879	6,77,772	5,58,208	4,23,480	2,71,665	1,00,597
Principal	5,22,161	5,82,585	6,50,001	7,25,219	8,09,140	9,02,773	10,07,241
Interest	5,67,761	5,07,337	4,39,921	3,64,704	2,80,782	1,87,149	82,682
Total (b)	10,89,922	10,89,922	10,89,922	10,89,922	10,89,922	10,89,922	10,89,922
DSCR	1.36	2.52	2.30	2.33	2.87	3.29	3.32
Average DSCR	2.57						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
	Cash outflow at beginning			
				-81,83,800
1	31-03-2023	9,14,872	7,55,500	16,70,372
2	31-03-2024	22,38,283	6,52,463	28,90,746
3	31-03-2025	20,67,627	5,63,852	26,31,479
4	31-03-2026	21,74,302	4,87,607	26,61,909
5	31-03-2027	28,42,132	4,21,966	32,64,097
6	31-03-2028	34,01,645	3,65,420	37,67,065
7	31-03-2029	35,33,884	3,16,682	38,50,566
IRR	26.29%			
Payback Period	3 Years 4 Months			



Calculation of Break-Even Point (BEP)

Sales	3,30,95,042	5,50,57,942	6,11,18,400	6,41,14,850	7,13,44,350	7,90,70,617	8,29,55,800
Variable Cost	2,58,96,381	4,42,70,880	5,01,30,460	5,27,82,380	5,85,30,000	6,48,79,940	6,82,93,016
Contribution	71,98,660	1,07,87,062	1,09,87,940	1,13,32,470	1,28,14,350	1,41,90,677	1,46,62,784
Fixed Cost	57,30,986	74,28,800	78,73,473	80,65,611	85,93,448	91,70,470	94,53,663
BEP Sales	2,63,47,571	3,79,17,129	4,37,94,748	4,56,32,189	4,78,44,326	5,10,97,965	5,34,84,810
Average BEP sales	4,37,31,248						

4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount
1	Land Development	24,300
2	Civil Construction	18,57,500
3	Irrigation/Water Supply	2,00,000
4	Electrification	5,00,000
5	Plant & Machinery	31,65,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	-
9	Other Misc. Exp	-
	Total Fixed Cost	57,76,800
	Recurring	24,07,000
	Cost of Project	81,83,800



Detailed Project Report ***on*** ***Oil Extraction Mill***

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Oil Extraction Mill
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	2000 kg/day
4	Key components of the project	Oil extraction, Packaging and Selling
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Mustard Oil
7	Total Project Cost	Rs. 58,35,000
8	Fixed Capital Cost	Rs. 43,39,000
9	Working/Recurring capital	Rs. 14,96,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 51,01,900
12	Promoter Contribution (min 10% of the project cost in case of bank loan)	Rs. 7,33,100
13	Assumed Rate of Interest	11%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators: 1. Average Annual Net Profit 2. Debt Service Coverage Ratio (DSCR) 3. Internal Rate of Return 4. Break Even Point (BEP)/Year	Rs. 18,01,345
		2.37
		28.60%
		3 Years and 2 Month
17	Estimated employment to be generated (nos.)	11

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/: FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by: APICOL

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Oil seed crops occupy an important place in the agriculture and industrial economy of the country. India is perhaps the only country in the world having the largest number of commercial varieties of oil seeds. Mustard Oil is also one of the major oil seeds from which edible oil is produced. In Northern & Central India, it is medium of cooking food. Besides it is also used in preparation of Pickles. The Mustard Oil Cake (By Product) is used as cattle feed.

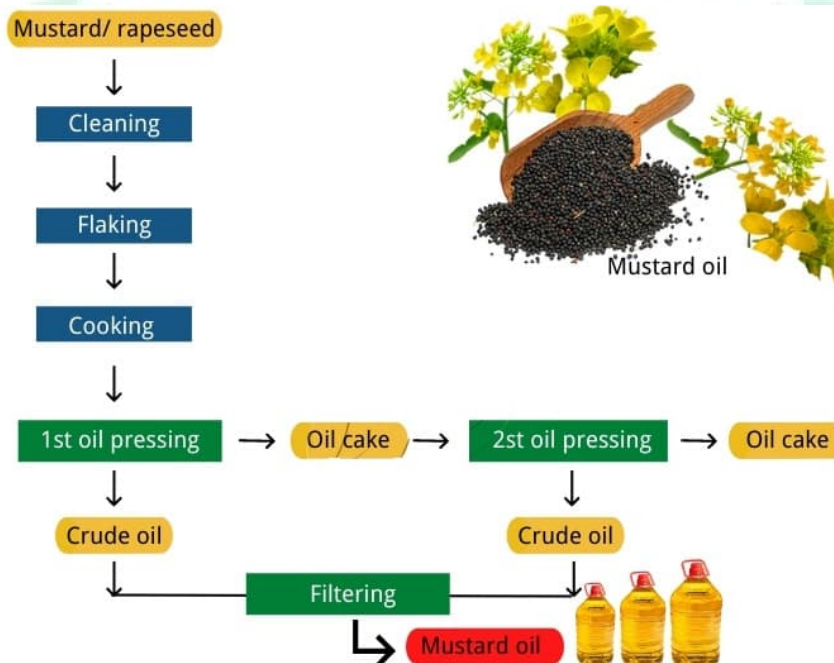
It has enormous demand as one of the edible oils and used as cooking medium especially in northern, eastern and northeastern of India. The demand of Mustard Oil is increasing with the time. Refined Ghani, filtered, double filtered mustard oil has given new thrust to its market. Due to consumption in household and in pickle industries it appears to be good scope for establishing mustard oil industry.

Raw Material, Manufacturing process & Source of Technology

Mustard oil is extracted from mustard seeds and is commonly used in India. It is an ancient oil that is said to be loaded with many health benefits. Mustard oil is full of MUFA which is very important for our health. Mustard oil is made from pressing the seeds of a mustard plant to produce a spicy oil. The seeds are to be dried in sun and then they are to be cleaned by shakers to remove dust and foreign materials. The seeds are initially steamed and then passed through the expeller and the process is repeated till the maximum oil is extracted out of the seeds. The filtered oil is filled into the containers, which are subsequently sealed and labeled for marketing. On an average around 35% recovery of oil from the seed is made.

The quality of seeds should conform at least to the quality and standard laid down in P.F.A. Act. However, for better marketing the standards may be maintained as per 'AGMARK' specification. The entrepreneur may approach the appropriate authorities to get 'AGMARK' or ISI specification for better marketing of the product.

Process Flow





Market Potential

The India mustard oil market is expected to exhibit a growth rate (CAGR) of 4.3% during 2023-2028. Mustard oil refers to a type of vegetable oil that is naturally extracted from the seeds of black, brown, and white mustard.

Mustard oil refers to a type of vegetable oil that is naturally extracted from the seeds of black, brown, and white mustard. In India, it is widely available in different forms, including refined mustard oil, Grade I (Kachchi Ghani) mustard oil, and Grade II (non-edible) mustard oil. Some of the key factors driving the demand of mustard oil in India include rising disposable incomes, health benefits, strong demand from both urban and rural regions and diversified applications in both food and non-food applications.

India is among the biggest consumers of mustard oil based on its high consumption in various culinary practices, such as cooking, frying, poaching, dressing, etc. Additionally, the expanding agriculture sector contributes to the increasing availability of high yielding mustard seeds, thereby catalyzing the mustard oil production. Furthermore, the Indian government has launched several initiatives for enhancing the production of oilseeds in the country to reduce imports and achieve self-sufficiency in edible oil production. Moreover, the wide presence of brick-and-mortar retail centers, including convenience stores, grocery stores, supermarkets, hypermarkets, etc., is also propelling the demand for mustard oil in the country. In line with this, the increasing sales of mustard oil over e-commerce platforms supported by several discounted offers, cashback, doorstep delivery options, etc., are also catalyzing the market for mustard oil in India. Moreover, the market is further driven by the growing demand for mustard oil in the personal care sector in India.

Key Market Segmentation:

Breakup by Packaging Type:

- Pouches
- Jars
- Cans
- Bottles

Breakup by Packaging Material:

- Metal
- Plastic
- Paper

Breakup by Pack Size:

- Less than 1 Litres
- 1 Litres
- 1 Litres - 5 litres
- 5 Litres - 10 Litres
- 10 Litres and Above

Breakup by Application:

- Household Cooking
- HoReCa
- Industrial Uses



Breakup by Distribution Channel:

- Direct/Institutional Sales
- Supermarkets and Hypermarkets
- Convenience Stores
- Online

3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	3	%
3	Collection from Debtors (First Year)	10	Days
4	Collection from Debtors	10	Days
5	Payable to Creditors	15	Days
6	Drawing By Promoter	40	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	15	Days
12	Finished Goods in stock (on sales)	5	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	20	%
15	Working Capital Requirement	15	Days
16	Working Capital Utilisation	100	%
17	No. of working days	295	Days
18	Yield of Oil	35	%
19	Yield of Mustard Oil Cake	60	%

4. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total
A	Land				
1	Land Development	Sq. ft	5000	0.70	3,500
2	Fencing (Barbed wire/Green Fencing)	ft	300	60.00	18,000
	Sub Total				21,500
B	Civil Construction				
1	Production Area	Sq. ft	1500	400.00	6,00,000
2	RM and FG Store	Sq. ft	1500	400.00	6,00,000
3	Office	Sq. ft	200	850.00	1,70,000
	Labour Shed	Sq. ft	250	400.00	87,500
	Sub Total				14,57,500
C	Water Supply				
1	Water Supply with overhead tank, pump and pipelines etc.			LS	2,50,000
D	Electrification				
1	Electrical Installation with transformer and DG Unit				5,00,000
Plant and Machinery					



Sl. No.	Particulars	Specification	Qty	Unit Price	total
1	Oil Expeller with Single Steel gear		1	4,40,000	4,40,000
2	Filter press frame		1	1,50,000	1,50,000
3	Oil Storage Tank		2	20,000	40,000
4	Filling and capping machine - 5 lit to 50 lit		1	8,00,000	8,00,000
5	Boiler		1	5,00,000	5,00,000
6	Screw mixer		1	1,50,000	1,50,000
	Total Plant and Machinery Cost				20,80,000
E	Misc. Exp.				
	Insurance				30,000
	DPR Cost				
	Other misc. exp				
	Total Miscellaneous Expenditure				30,000

4.2. Project Variable Expenses

Details of raw material						
Sl. No.	Items	Unit	Rate per Unit (Rs)	Qty/day	Qty per annum (kg)	Total (Rs)
1	Mustard Seeds	kg	54.00	2,000	5,90,000	3,18,60,000
2	Packing material	Nos	10.00	147	43,365	4,33,650
	Total					3,22,93,650

Details of salary and other benefits				
Sl. No.	Type of workers	No. of worker	Salary per month/head (Rs)	Total salary per annum (Rs)
1	Manager	1	20,000	2,40,000
2	Purchase and store	1	15,000	1,80,000
3	Skilled Worker	3	12,000	4,32,000
4	Unskilled Worker	6	8,000	5,76,000
	Grand Total	11	55,000	14,28,000

4.3. Details of Sales

Details of sales						
Sl. No.	Type of products	Unit	Rate/Unit (Rs)	Quantity per day	Quantity per annum	Total (Rs)
1	Mustard Oil	Lit.	140.00	700	2,06,500	2,89,10,000
2	Mustard Oil Cake	kg	32.00	1,200	3,54,000	1,13,28,000
	Total					4,02,38,000



4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	14,37,820	16,70,675	18,62,702	21,87,521	26,05,589	29,16,126
Add: Introduced	7,33,100						
Add: Profit	11,75,720	13,47,856	14,35,026	17,84,820	21,56,067	22,55,538	24,54,388
Less: Drawing	4,71,000	11,15,000	12,43,000	14,60,000	17,38,000	19,45,000	21,49,000
Closing Capital	14,37,820	16,70,675	18,62,702	21,87,521	26,05,589	29,16,126	32,21,515
Term Loan from Bank	35,12,901	30,75,316	25,87,095	20,42,378	14,34,626	7,56,546	-
Current Liabilities							
Cash Credit from Bank	11,96,800	11,96,800	11,96,800	11,96,800	11,96,800	11,96,800	11,96,800
Sundry Creditors	9,68,810	13,56,350	15,13,200	16,82,350	18,64,650	19,57,900	20,55,800
Expenses Payable	3,06,200	3,84,900	4,20,800	4,59,300	5,00,600	5,25,700	5,52,200
Current Provisions	2,36,023	3,09,795	3,47,154	4,97,066	6,56,172	6,98,802	7,84,024
Total Current Liabilities	27,07,832	32,47,845	34,77,954	38,35,516	42,18,222	43,79,202	45,88,824
Total Liabilities	76,58,553	79,93,837	79,27,751	80,65,414	82,58,436	80,51,875	78,10,338
Assets							
Fixed Assets							
Less Depreciation	43,09,000	43,09,000	43,09,000	43,09,000	43,09,000	43,09,000	43,09,000
Net Fixed Assets	5,57,750	10,40,375	14,58,290	18,20,433	21,34,479	24,07,019	26,43,719
Current Assets	37,51,250	32,68,625	28,50,710	24,88,567	21,74,521	19,01,981	16,65,281
Sundry Debtors							
Inventories	8,04,800	11,26,700	12,57,000	13,97,500	15,48,900	16,26,400	17,07,700
Cash and Bank Balance	13,94,500	17,88,600	21,11,781	23,50,036	26,06,876	27,78,659	29,17,649
Other Current Assets	2,41,500	3,38,100	3,77,100	4,19,300	4,64,700	4,88,000	5,12,400
Total Current Assets	14,66,503	14,71,812	13,31,159	14,10,012	14,63,439	12,56,834	10,07,308
Total Assets	39,07,303	47,25,212	50,77,041	55,76,847	60,83,915	61,49,893	61,45,057
Total Assets	76,58,553	79,93,837	79,27,751	80,65,414	82,58,436	80,51,875	78,10,338



4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	1,70,750.00	3,87,000	5,57,750
	2	1,53,675.00	3,28,950	4,82,625
	3	1,38,307.50	2,79,608	4,17,915
	4	1,24,476.75	2,37,666	3,62,143
	5	1,12,029.08	2,02,016	3,14,045
	6	1,00,826.17	1,71,714	2,72,540
	7	90,743.55	1,45,957	2,36,700

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	60	80	85	90	95	95	95
Revenue							
Sales	2,41,42,800	3,38,00,000	3,77,09,000	4,19,24,000	4,64,66,000	4,87,90,000	5,12,30,000
Opening Stock of Finished Goods	-	(4,09,200)	(5,72,881)	(6,39,136)	(7,10,576)	(7,87,559)	(8,26,949)
Closing Stock of Finished Goods	4,09,200	5,72,881	6,39,136	7,10,576	7,87,559	8,26,949	8,68,305
Total Income (A)	2,45,52,000	3,39,63,681	3,77,75,254	4,19,95,441	4,65,42,983	4,88,29,390	5,12,71,356
Expenditure							
Opening stock of Raw Material	-	9,85,300	13,79,400	15,38,900	17,10,900	18,96,300	19,91,100
Purchase (Net) of Material	1,93,76,190	2,71,27,000	3,02,64,000	3,36,47,000	3,72,93,000	3,91,58,000	4,11,16,000
Closing Stock of Raw material	9,85,300	13,79,400	15,38,900	17,10,900	18,96,300	19,91,100	20,90,700
Raw Material Consumption	1,83,90,890	2,67,32,900	3,01,04,500	3,34,75,000	3,71,07,600	3,90,63,200	4,10,16,400
Repair & Maintenance - Machinery (@5% of Cost)	42,875	45,100	47,400	49,800	52,300	55,000	57,800
Electricity expense	19,31,424	27,04,000	30,16,800	33,54,000	37,17,300	39,03,200	41,01,800
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500
Administrative salaries and wages	14,28,000	14,99,400	15,74,400	16,53,200	17,35,900	18,22,700	19,13,900
Other Misc. Expenses [@2% of sales]	2,41,428	3,38,000	3,77,090	4,19,240	4,64,660	4,87,900	5,12,300



Total Cost	2,20,64,617	3,13,50,900	3,51,53,290	3,89,86,040	4,31,14,360	4,53,70,500	4,76,42,700
Profit Before Depreciation, Interest and Tax	24,87,383	26,12,781	26,21,964	30,09,401	34,28,623	34,58,890	36,28,656
Depreciation	5,57,750	4,82,625	4,17,915	3,62,143	3,14,045	2,72,540	2,36,700
Profit Before Interest and Tax	19,29,633	21,30,156	22,04,049	26,47,258	31,14,578	31,86,350	33,91,956
Interest on Term Loan	4,10,178	3,64,794	3,14,157	2,57,660	1,94,626	1,24,298	45,832
Interest on Working Capital Loan	1,07,712	1,07,712	1,07,712	1,07,712	1,07,712	1,07,712	1,07,712
Total Interest Paid	5,17,890	4,72,506	4,21,869	3,65,372	3,02,338	2,32,010	1,53,544
Profit Before Tax	14,11,743	16,57,651	17,82,180	22,81,885	28,12,239	29,54,340	32,38,412
Income Tax	2,36,023	3,09,795	3,47,154	4,97,066	6,56,172	6,98,802	7,84,024
Profit after Tax	11,75,720	13,47,856	14,35,026	17,84,820	21,56,067	22,55,538	24,54,388

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	2,41,500	3,38,100	3,77,100	4,19,300	4,64,700	4,88,000
Cash Inflow during the Period	82,16,303	23,70,493	22,23,702	25,04,524	28,52,819	28,95,663	31,50,236
Cash Outflow during the Period	79,74,803	22,73,893	21,84,702	24,62,324	28,07,419	28,72,363	31,25,836
Closing Cash & Bank Balance	2,41,500	3,38,100	3,77,100	4,19,300	4,64,700	4,88,000	5,12,400

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	4,10,178.46	8,02,377.92	3,92,199.45
2	3,64,793.60	8,02,377.92	4,37,584.32
3	3,14,156.85	8,02,377.92	4,88,221.07
4	2,57,660.48	8,02,377.92	5,44,717.44
5	1,94,626.41	8,02,377.92	6,07,751.51
6	1,24,298.11	8,02,377.92	6,78,079.80
7	45,831.51	8,02,377.92	7,56,546.41
Total	17,11,545.43	56,16,645.43	39,05,100.00



4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	2,41,42,800	3,38,00,000	3,77,09,000	4,19,24,000	4,64,66,000	4,87,90,000	5,12,30,000
Net Profit	11,75,720	13,47,856	14,35,026	17,84,820	21,56,067	22,55,538	24,54,388
Interest Paid	5,17,890	4,72,506	4,21,869	3,65,372	3,02,338	2,32,010	1,53,544
Cash Accruals (a)	16,93,610	18,20,361	18,56,895	21,50,192	24,58,406	24,87,548	26,07,932
Principal	3,92,199	4,37,584	4,88,221	5,44,717	6,07,752	6,78,080	7,56,546
Interest	5,17,890	4,72,506	4,21,869	3,65,372	3,02,338	2,32,010	1,53,544
Total (b)	9,10,090	9,10,090	9,10,090	9,10,090	9,10,090	9,10,090	9,10,090
DSCR	1.86	2.00	2.04	2.36	2.70	2.73	2.87
Average DSCR	2.37						

Calculation of Break-Even Point (BEP)							
Sales	2,45,52,000	3,39,63,681	3,77,75,254	4,19,95,441	4,65,42,983	4,88,29,390	5,12,71,356
Variable Cost	1,86,32,318	2,70,70,900	3,04,81,590	3,38,94,240	3,75,72,260	3,95,51,100	4,15,28,700
Contribution	59,19,682	68,92,781	72,93,664	81,01,201	89,70,723	92,78,290	97,42,656
Fixed Cost	45,07,939	52,35,131	55,11,484	58,19,316	61,58,484	63,23,950	65,04,244
BEP Sales	1,86,96,769	2,57,95,727	2,85,45,008	3,01,66,482	3,19,52,186	3,32,81,417	3,42,29,004
Average BEP sales	2,89,52,370						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
		Cash outflow at beginning		
1	31-03-2023	11,75,720	5,57,750	17,33,470
2	31-03-2024	13,47,856	4,82,625	18,30,481
3	31-03-2025	14,35,026	4,17,915	18,52,941
4	31-03-2026	17,84,820	3,62,143	21,46,963
5	31-03-2027	21,56,067	3,14,045	24,70,113
6	31-03-2028	22,55,538	2,72,540	25,28,078
7	31-03-2029	24,54,388	2,36,700	26,91,089
IRR		28.60%		
Payback Period	3 Years 2 Month			



4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount (Rs)
1	Land Development	21,500
2	Civil Construction	14,57,500
3	Irrigation/Water Supply	2,50,000
4	Electrification	5,00,000
5	Plant & Machinery	20,80,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	-
9	Other misc. exp	-
	Total Fixed Cost	43,39,000
	Recurring	14,96,000
	Cost of Project	58,35,000



Detail Project Report ***on*** ***Pulses Processing***

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Pulses Processing
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	1200 kg/day
4	Key components of the project (Example: Dairy, Vermicomposting, Biogas, Apiary, Solar Lighting)	Pulses Processing and Packaging
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Green gram, Black gram, Pigeon pea
7	Total Project Cost	Rs. 84,15,500
8	Fixed Capital Cost	Rs. 72,07,500
9	Working/Recurring capital	Rs. 12,08,000
10	Bank Finance/ Self Finance	Bank Financed
11	Bank Loan Amount	Rs. 74,53,150
12	Promoter Contribution (min 10% in case of bank loan)	Rs. 9,62,350
13	Assumed Rate of Interest	11%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators: 1. Average Annual Net Profit 2. Debt Service Coverage Ratio (DSCR) 3. Internal Rate of Return 4. Break Even Point (BEP)	Rs. 27,34,595
		2.27
		29.86%
		3 Years and 3 Months
17	Estimated employment to be generated (nos.)	12

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/: FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by: APICOL

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Pulses refer to the dried, edible seeds of leguminous crops. Pulses play a fundamental role as a low-fat source of protein and an essential component of traditional food baskets. These are most essential element for a well-balanced diet and major source of protein to vegetarian people of India. There are several varieties of pulses in India. Most of them are produced and consumed locally.

Chickpeas (Chana), pigeon peas (Arhar/Toor Dal), Urad (Urad Dal), Mung (Moong) and red lentils (Masoor) are the top five pulses grown in India. These pulses account for over 80 per cent of the total production in the country. The conversion of pulses seed into Dal is done through the process of milling. A Dal mill should be located in rural or semi-urban area which have excess production of pulses and connected to market. The project deals with variety of dal such as Masoor Dal, Chana Dal, Urad Dal, etc.

Regular consumption of dals and pulses is a great way to attain nutrients like protein and calcium. They can substitute seafood and animal products in terms of nutrients if you are a vegetarian. A nutritious diet is very important especially when you are in your growing stages. Children and adolescents need a balanced diet so that they get required energy, and their body and mind can develop properly. Many children, who are underweight, weak or fall sick easily, need to inculcate healthy foods like dals and pulses in their daily diet.

Milling Process

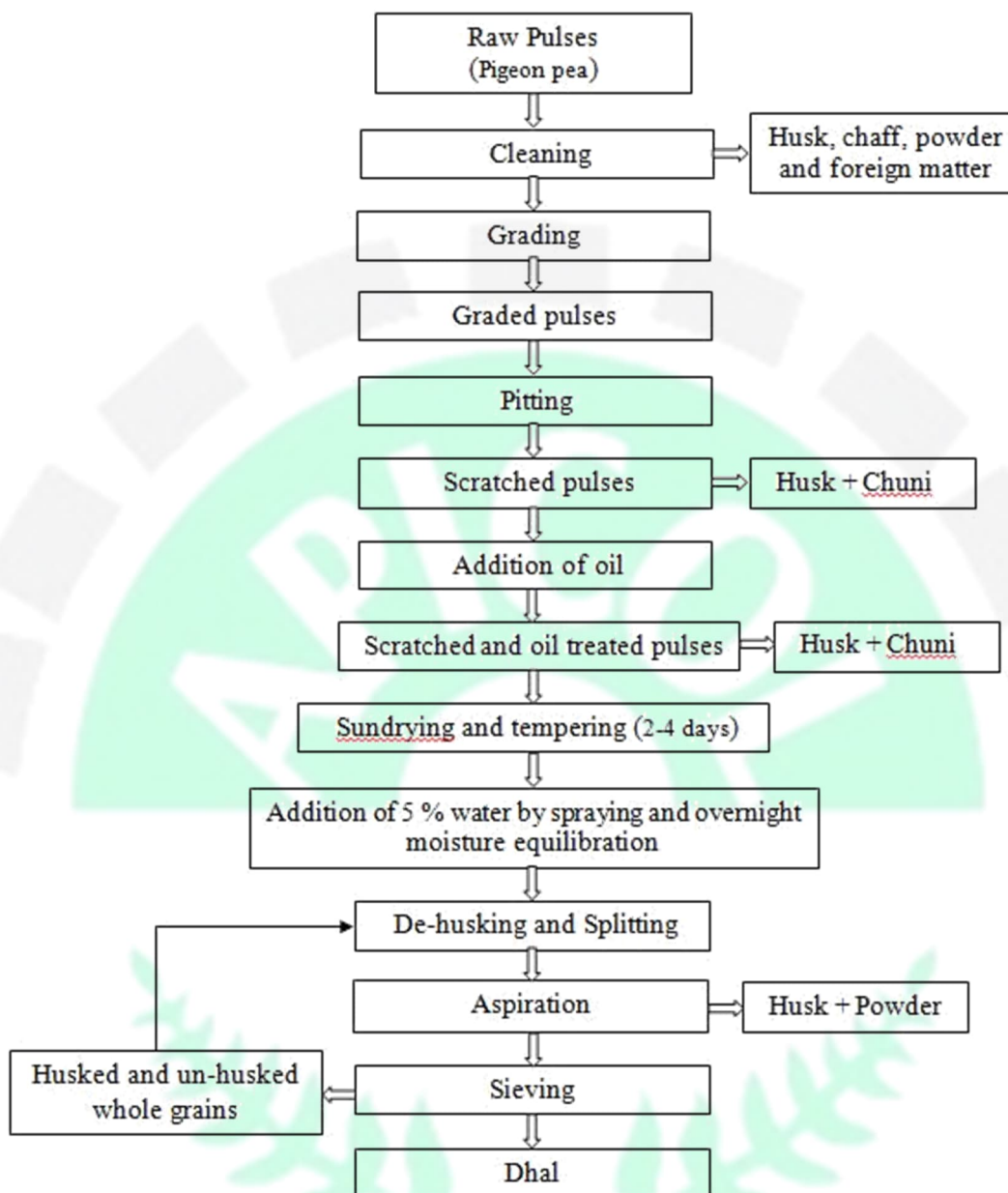
Generally milling of pulses is done in two ways i.e., wet milling and dry milling. The milling process may vary from depending on the type of pulses and scale of processing. CFTRI has developed a method for milling. The flow chart for different milling methods are as below;

1. Dry milling method of pigeon pea

It is generally practiced in Madhya Pradesh and Uttar Pradesh. In this, the pulses are subjected to pitting in a roller and then oil treatment by applying 0.5-2.0 per cent linseed oil or any edible oil. Then the pulses are spread in the drying yard for sun drying for 2 – 4 days. The pulses are tempered by heaping and covering during the nights in between these days. After sundrying, again pulses are moistened uniformly with about 5 % water and kept as such on heaps overnight for moisture equilibrium. Then, these pulses are allowed to pass from the roller for splitting and dehiscing. About, 50 % of the pulses are dehused and split in first operation. After this, the husk are removed by aspiration and split dhal are separated from the mixture of husked and un- husked whole pulses. The mixture is once again moistened and dried in the sun and then dehused and split. This process of alternate wetting and drying is repeated until almost all the remaining pulses are converted in to split dhal. The average yield of dhal ranges from 68-75 %.



Flow diagram of dry milling method of pigeon pea

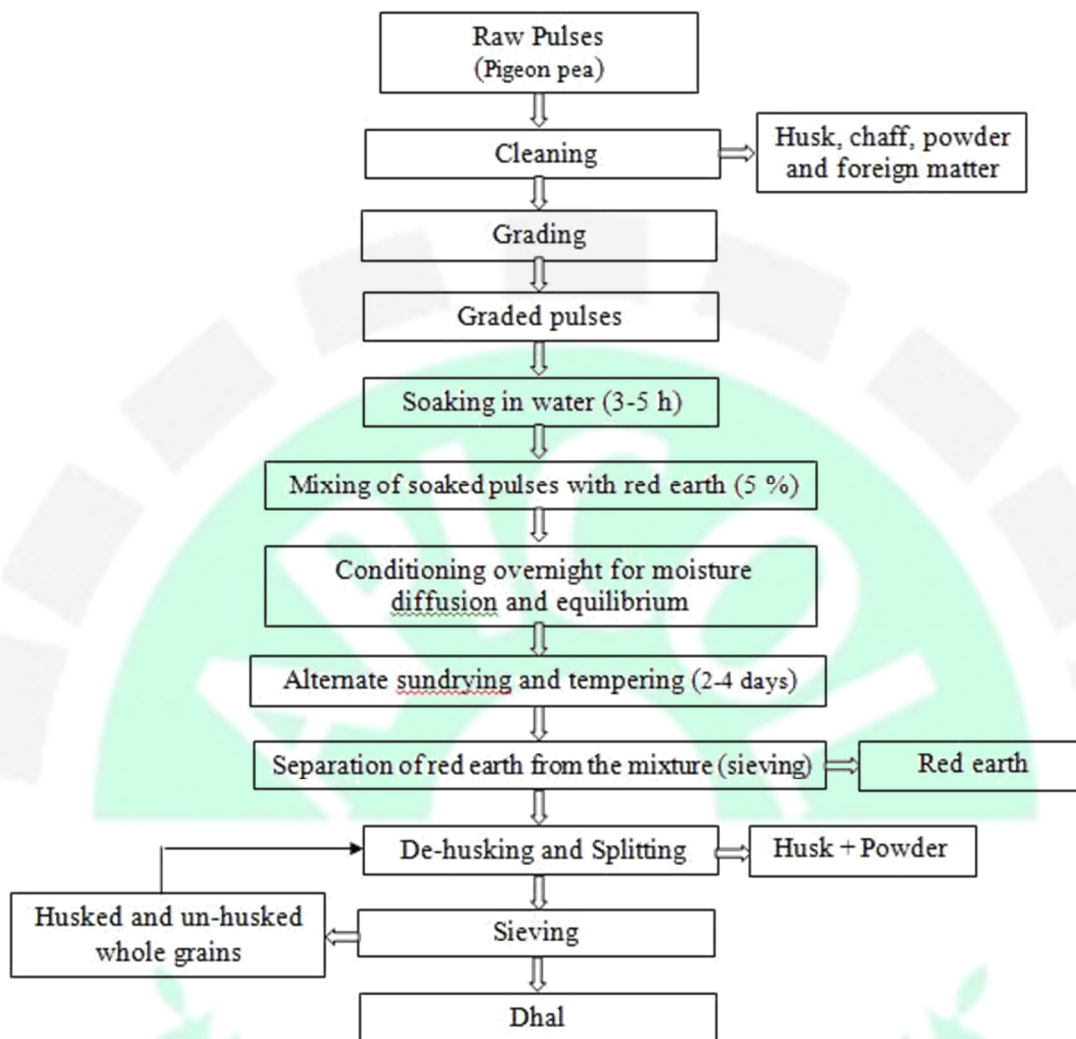


2. Wet milling method of pigeon pea

The grains are soaked in water for 3-12 hours in this method of milling. The soaked pulses are mixed with red earth at about 5 % thoroughly. The mixture is kept in heaps overnight. The whole mixture is then dried in the sun for 2-4 days until the husk of the grain are shriveled and loosened. The pulses are tempered overnight in between these days. By sieving, the red earth is separated from the pulses. The dried grains are dehusked and split in disc sheller. The dhal and other fractions are separated. In a single milling operation, about 95 % of the pulses are dehusked and split. The rest material again pretreated and milled to convert in to dhal. The red earth may facilitate in increasing the rate of drying and in loosening the husk. This method requires about 5 to 7 days for processing of a batch of pulses.



Flow diagram of wet milling method of pigeon pea

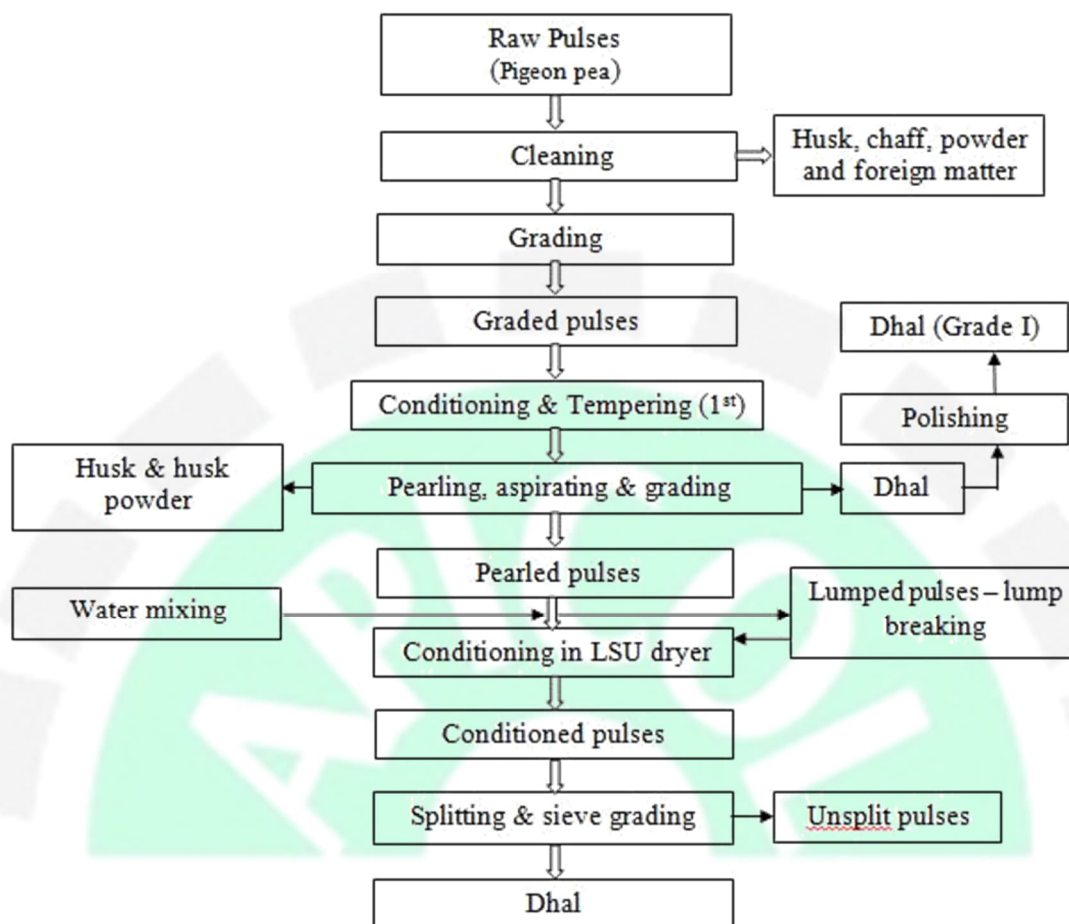


3. CFTRI method of Pigeon Pea milling

There are some other methods like CFTRI method, which eliminates mixing of oil and water for loosening the husk. Clean and graded grains are conditioned by dry heat treatment by two passes through LSU drier with hot air. After each pass through the dryer the grains are tempered for 6 hours in tempering bin. The preconditioned pulses are conveyed to the pearler or dehusker where almost all pulses are dehusked in single operation. The gota (dehusked whole grain) are separated from split pulses and mixture of husk, broken, etc. Water is added at controlled level to Gota and then collected and allowed to remain as such for about 1 hour. Some of the moistened Gota form lumps of varying sizes. These lumps are fed to the lump breaker to separate them. These Gota are conveyed to LSU dryer where it is exposed to hot air for few hours. The Gota are dried to proper moisture level for splitting. The hot, conditioned and dried dehusked whole pulses are split in the emery roller. The mixture is graded into Grade I pulses, dehusked whole pulses and small broken. The unsplit dehusked pulses are again fed to the conditioner for subsequent splitting. Average yield by this method is 80 %, in lesser time and lesser processing cost compared to other methods.



Flow diagram of CFTRI method of pigeon pea



4. Method of Black gram milling

After cleaning the black grams are subjected to pricking in a rough roller mill for some scratching as well as partial removal of the waxy coating on the black grams. The scratched grains are then coated with 1 to 2 percent oil in the grains. The scratched and oil coated pulses are sprayed in drying yards for sun drying for 4 to 6 hours. The partially dried grains are moistened with a spray of 4 to 5 percent water and kept overnight for moisture equilibration. The wetted pulses are then dried in the sun for 3 to 4 days and tempered over nights. Thoroughly dried pulses are de-husked in a roller machine. About, 40 to 50 percent pulses are de-husked and split in first milling operation. The husk and powder are then aspirated off. Then, the split 'dhal' is separated from the de-husked whole dhal and un-husked pulses by sieving. Both husked and un-husked whole grains are again dried in the sun and milled as above, and the same process is repeated until the desired milling of pulses is achieved. The average yield of dhal is 70-71 percent. Sometimes, the last part of the unsplit grains and partially husked grains are allowed to pass through sheller and polisher machines for splitting and removal of the husk and polisher machines for splitting and removal of the husk, which result in a large amount of losses due to formation of powder and brokens. In some cases, policing is done in a buffing machine. In order to give a white finish and to protected from insect attack a coating of soapstone powder is generally given to these 'dhals'.



Market Potential

Pulses are generally used along with rice and Chapatti as Dal. Dal, garnished with onions, tomatoes and spices is an indispensable nibble in household. The various pulses are part of the normal diet of all vegetarians and are also used frequently by non-vegetarians too. They are the main sources of protein. The pulses are used for preparing hot dishes, sweet dishes and other varieties. Pulses are the most common diet part of Indian families. Dal is dry cereal, which is taken to fulfil the requirements of protein for a normal human being. Due to the high content of proteins pulses are mixed in other cereal foods to increase the quality of proteins to be injected in the body.

India pulses market reached a volume of 27.5 million Tons in 2019. The market for pulses/Dal is present largely in India where ninety per cent of the produce is consumed locally. Pulses are now increasingly being used in the processing of ready-to-eat (RTE) food products. As a result of rapid urbanization, changing lifestyle and hectic work schedules, healthy snack foods are becoming popular amongst the working population. The demand for pulses will never end but will increase in an increasing rate and rise in population also drives the demand for pulses.

Raw Material Description

Basic raw material that is used in pulse processing are different types of pulses that are directly procured from farmers and packing material used to pack finished product. Average Raw Material Cost is Rs. 67-80 kg.

3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	5	%
3	Collection from Debtors (First Year)	15	Days
4	Collection from Debtors	15	Days
5	Payable to Creditors	20	Days
6	Drawing By Promoter	30	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	15	Days
12	Finished Goods in stock (on sales)	3	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	20	%
15	Working Capital Requirement	15	Days
16	Working Capital Utilisation	100	%
17	No. of working Days	295	Days
18	Yield of A-grade pulses	70	%
19	Yield of B-grade pulses (Broken)	15	%
20	Quantity of By-product	10	%
21	Losses	5	%



4. Financial Details

4.1. Project Fixed Capital

Details of Fixed Assets					
Sl. No.	Particulars	Unit/Specification	Qty.	Cost per unit	Total
A Land					
1	Land Development	Sq. ft	7000	LS	4,900
2	Fencing (Barbed wire/Green Fencing)	ft	335	60.00	20,100
	Sub Total				25,000
B Civil Construction					
1	Production area	sq. ft	3000	400.00	12,00,000
2	RM and FG Store	sq. ft	2000	400.00	8,00,000
3	Office	sq. ft	200	850.00	1,70,000
4	Labour Shed	sq. ft	250	350.00	87,500
	Sub Total				22,57,000
C Water Supply					
1	Water Supply with overhead tank, pump and pipeline				2,50,000
D Electrification					
1	Electrical Installation (with transformer and DG Unit as required)				5,00,000
E Plant & Machinery					
Sl. No.	Particulars	Unit/Specification	Qty	Unit Price	total
1	Separator	G.I. mesh & accessories - 6 HP	1	1,30,000	1,30,000
2	Destoner Double Blower Type	3 HP	1	1,50,000	1,50,000
3	Pre-aspiration with High Pressor Blower	6 HP	1	45,000	45,000
4	Emery Roll	MS & G.I Sheet, 2.5mm thickness.	1	1,50,000	1,50,000
5	Elevator Box type	With Cotton Belt & Pulley Set	1	3,00,000	3,00,000
6	Conveyer	2 HP	1	65,000	65,000
7	Grinding Machine	5 HP	1	55,000	55,000
8	Aspiration system (with Low Pressor Blower & Connection Pipes)	10 HP	1	1,80,000	1,80,000
9	Electric Motor & Panel Board		1	4,50,000	4,50,000
10	Dryer (With Heating Chamber, Including Blower and accessories)	15 HP	1	6,50,000	6,50,000
11	Colour Sorter		1	11,50,000	11,50,000
12	Air Compressor	7.5 HP	1	1,20,000	1,20,000
13	Lather Polisher	15 HP	1	2,50,000	2,50,000
14	Packing Machine		1	5,00,000	5,00,000
	Total				41,95,000



F	Miscellaneous Expenditure				
1	Insurance premium of assets				30000
2	DPR Cost				
3	Other Misc. Exp				
	Total Misc. Exp.				30000

4.2. Project Variable Expenses

Details of Recurring Expenditure						
A	Details of raw material					
Sl. No.	Items	Unit	Rate/Unit (Rs)	Qty/day	Qty/annum (kg)	Total Cost (Rs)
1	Green gram	Kg	78.00	400	1,18,000	92,04,000
2	Black gram	Kg	66.00	400	1,18,000	77,88,000
3	Pigeon pea	Kg	66.00	400	1,18,000	77,88,000
4	Packing material	No	15.00	22.8	6726	100890
	Total			1,200	3,60,726	2,48,80,890

Details of salary and other benefits				
Sl. No.	Type of workers	No. of Worker	Salary Per Month/head (Rs)	Total Salary per annum (Rs)
1	Manager	1	20000	240000
2	Unskilled	6	10000	720000
3	Skilled	3	12,000	4,32,000
4	Domain Skilled	1	15,000	1,80,000
5	Purchase and Store	1	20,000	2,40,000
	Grand Total	12	77,000	18,12,000

4.3. Details of Sales

G	Details of sales					
Sl. No.	Type of products	Unit	Rate/Unit (Rs)	Quantity/day	Quantity/annum	Total (Rs)
1	Green gram (A grade)	Kg	125	280	82,600	1,03,25,000
2	Black gram (A grade)	Kg	130	280	82,600	1,07,38,000
3	Pigeon pea (A grade)	Kg	120	280	82,600	99,12,000
4	Green gram (Broken)	Kg	70	60	17,700	12,39,000
5	Black gram (Broken)	Kg	75	60	17,700	13,27,500
6	Pigeon pea (Broken)	Kg	65	60	17,700	11,50,500
7	By-product (Husk)	Kg	15	120	35,400	5,31,000
	Total			1,140	3,36,300	3,52,23,000

4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital		19,95,431	25,41,204	32,52,490	41,38,317	51,69,494	63,29,227
Add: Introduced	9,62,350						
Add: Profit	14,77,081	16,35,772	21,05,287	26,59,826	32,47,177	38,72,733	41,44,286
Less: Drawing	4,44,000	10,90,000	13,94,000	17,74,000	22,16,000	27,13,000	31,43,000
Closing Capital	19,95,431	25,41,204	32,52,490	41,38,317	51,69,494	63,29,227	73,30,513
Term Loan from Bank	58,35,269	51,08,399	42,97,416	33,92,588	23,83,053	12,56,697	-
Current Liabilities							
Cash Credit from Bank	9,66,400	9,66,400	9,66,400	9,66,400	9,66,400	9,66,400	9,66,400
Sundry Creditors	10,78,172	13,06,267	14,63,067	16,32,267	18,14,733	20,11,333	21,11,933
Expenses Payable	3,50,300	3,98,700	4,34,800	4,73,500	5,15,100	5,59,600	5,87,700
Current Provisions	3,65,178	4,33,188	6,34,409	8,72,068	11,23,790	13,91,885	15,08,266
Total Current Liabilities	27,60,050	31,04,555	34,98,675	39,44,235	44,20,024	49,29,219	51,74,299
Total Liabilities	1,05,90,750	1,07,54,157	1,10,48,582	1,14,75,139	1,19,72,571	1,25,15,142	1,25,04,812
Assets							
Fixed Assets	72,07,500	72,07,500	72,07,500	72,07,500	72,07,500	72,07,500	72,07,500
Less Depreciation	9,50,000	17,69,788	24,77,666	30,89,315	36,18,174	40,75,767	44,71,976
Net Fixed Assets	62,57,500	54,37,713	47,29,834	41,18,185	35,89,326	31,31,733	27,35,524
Current Assets							
Sundry Debtors	11,44,800	13,87,000	15,53,400	17,33,100	19,26,800	21,35,500	22,42,300
Inventories	10,41,530	12,12,530	13,79,392	15,40,146	17,13,585	19,00,381	20,18,339
Cash and Bank Balance	2,29,000	2,77,400	3,10,700	3,46,700	3,85,400	4,27,100	4,48,500
Other Current Assets	19,17,920	24,39,515	30,75,256	37,37,008	43,57,461	49,20,428	50,60,149
Total Current Assets	43,33,250	53,16,445	63,18,747	73,56,954	83,83,245	93,83,409	97,69,288
Total Assets	1,05,90,750	1,07,54,157	1,10,48,582	1,14,75,139	1,19,72,571	1,25,15,142	1,25,04,812

4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year (Rs)
Year	1	2,45,750.00	7,04,250	9,50,000
	2	2,21,175.00	5,98,613	8,19,788
	3	1,99,057.50	5,08,821	7,07,878
	4	1,79,151.75	4,32,498	6,11,649
	5	1,61,236.58	3,67,623	5,28,859
	6	1,45,112.92	3,12,479	4,57,592
	7	1,30,601.63	2,65,608	3,96,209

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	65	75	80	85	90	95	95
Revenue							
Sales	2,28,94,950	2,77,39,000	3,10,68,000	3,46,61,000	3,85,35,000	4,27,10,000	4,48,46,000
Opening Stock of Finished Goods	-	(2,32,830)	(2,82,092)	(3,15,946)	(3,52,485)	(3,91,881)	(4,34,339)
Closing Stock of Finished Goods	2,32,830	2,82,092	3,15,946	3,52,485	3,91,881	4,34,339	4,56,061
Total Income (A)	2,31,27,780	2,77,88,262	3,11,01,854	3,46,97,539	3,85,74,397	4,27,52,458	4,48,67,722
Expenditure							
Opening stock of Raw Material	-	8,08,700	9,79,700	10,97,300	12,24,200	13,61,100	15,08,500
Purchase (Net) of Material	1,61,72,579	1,95,94,000	2,19,46,000	2,44,84,000	2,72,21,000	3,01,70,000	3,16,79,000
Closing Stock of Raw material	8,08,700	9,79,700	10,97,300	12,24,200	13,61,100	15,08,500	15,84,000
Raw Material Consumption	1,53,63,879	1,94,23,000	2,18,28,400	2,43,57,100	2,70,84,100	3,00,22,600	3,16,03,500
Repair & Maintenance- Machinery (@5% of Cost)	71,825	75,500	79,300	83,300	87,500	91,900	96,500
Electricity expense	18,31,596	22,19,200	24,85,500	27,72,900	30,82,800	34,16,800	35,89,500
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500
Administrative salaries and wages	18,12,000	19,02,600	19,97,800	20,97,700	22,02,600	23,12,800	24,28,500
Other Misc. Expenses [@2% of sales]	4,57,899	5,54,780	6,21,360	6,93,220	7,70,700	8,54,200	8,97,354
Total Cost	1,95,67,199	2,42,06,580	2,70,45,460	3,00,39,020	3,32,64,300	3,67,36,800	3,86,55,854

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Profit Before Depreciation, Interest and Tax	35,60,582	35,81,682	40,56,394	46,58,519	53,10,097	60,15,658	62,11,868
Depreciation	9,50,000	8,19,788	7,07,878	6,11,649	5,28,859	4,57,592	3,96,209
Profit Before Interest and Tax	26,10,582	27,61,894	33,48,516	40,46,870	47,81,237	55,58,065	58,15,658
Interest on Term Loan	6,81,346	6,05,958	5,21,845	4,27,999	3,23,293	2,06,471	76,131
Interest on Working Capital Loan	86,976	86,976	86,976	86,976	86,976	86,976	86,976
Total Interest Paid	7,68,322	6,92,934	6,08,821	5,14,975	4,10,269	2,93,447	1,63,107
Profit Before Tax	18,42,259	20,68,960	27,39,695	35,31,895	43,70,968	52,64,618	56,52,552
Income Tax	3,65,178	4,33,188	6,34,409	8,72,068	11,23,790	13,91,885	15,08,266
Profit after Tax	14,77,081	16,35,772	21,05,287	26,59,826	32,47,177	38,72,733	41,44,286

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	2,29,000	2,77,400	3,10,700	3,46,700	3,85,400	4,27,100
Cash Inflow during the Period	1,15,40,750	28,00,065	32,07,285	37,17,035	42,51,826	48,39,520	47,85,576
Cash Outflow during the Period	1,13,11,750	27,51,665	31,73,985	36,81,035	42,13,126	47,97,820	47,64,176
Closing Cash & Bank Balance	2,29,000	2,77,400	3,10,700	3,46,700	3,85,400	4,27,100	4,48,500

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	6,81,346.23	13,32,827.57	6,51,481.35
2	6,05,957.56	13,32,827.57	7,26,870.01
3	5,21,845.01	13,32,827.57	8,10,982.56
4	4,27,999.06	13,32,827.57	9,04,828.52
5	3,23,293.35	13,32,827.57	10,09,534.22
6	2,06,471.23	13,32,827.57	11,26,356.35
7	76,130.58	13,32,827.57	12,56,696.99
Total	28,43,043.02	93,29,793.02	64,86,750.00

4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	2,28,94,950	2,77,39,000	3,10,68,000	3,46,61,000	3,85,35,000	4,27,10,000	4,48,46,000
Net Profit	14,77,081	16,35,772	21,05,287	26,59,826	32,47,177	38,72,733	41,44,286
Interest Paid	7,68,322	6,92,934	6,08,821	5,14,975	4,10,269	2,93,447	1,63,107
Cash Accruals (a)	22,45,404	23,28,706	27,14,108	31,74,801	36,57,447	41,66,180	43,07,393
Principal	6,51,481	7,26,870	8,10,983	9,04,829	10,09,534	11,26,356	12,56,697
Interest	7,68,322	6,92,934	6,08,821	5,14,975	4,10,269	2,93,447	1,63,107
Total (b)	14,19,804	14,19,804	14,19,804	14,19,804	14,19,804	14,19,804	14,19,804
DSCR	1.58	1.64	1.91	2.24	2.58	2.93	3.03
Average DSCR	2.27						

Calculation of Break-Even Point (BEP)							
Sales	2,31,27,780	2,77,88,262	3,11,01,854	3,46,97,539	3,85,74,397	4,27,52,458	4,48,67,722
Variable Cost	1,58,21,778	1,99,77,780	2,24,49,760	2,50,50,320	2,78,54,800	3,08,76,800	3,25,00,854
Contribution	73,06,003	78,10,482	86,52,094	96,47,219	1,07,19,597	1,18,75,658	1,23,66,868
Fixed Cost	54,63,743	57,41,521	59,12,399	61,15,324	63,48,629	66,11,040	67,14,316
BEP Sales	1,72,95,950	2,04,27,279	2,12,53,418	2,19,94,598	2,28,45,498	2,37,99,793	2,43,59,932
Average BEP sales	2,17,10,924						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
1	Cash outflow at beginning			-84,15,500
2	31-03-2023	14,77,081	9,50,000	24,27,081
3	31-03-2024	16,35,772	8,19,788	24,55,560
	31-03-2025	21,05,287	7,07,878	28,13,165
4	31-03-2026	26,59,826	6,11,649	32,71,476
5	31-03-2027	32,47,177	5,28,859	37,76,037
6	31-03-2028	38,72,733	4,57,592	43,30,325
7	31-03-2029	41,44,286	3,96,209	45,40,495
IRR		29.86%		
Payback Period	3 Years 3 Months			

4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount (Rs)
1	Land Development	25,000
2	Civil Construction	22,57,500
3	Irrigation/Water Supply	2,00,000
4	Electrification	5,00,000
5	Plant & Machinery	41,95,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	-
9	Other Misc. Exp.	-
	Total Fixed Cost	72,07,500
	Recurring	12,08,000
	Cost of Project	84,15,500



Detailed Project Report ***on*** ***Seed Processing Unit***

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Paddy seed processing unit
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	5 MT per day
4	Project location (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
5	Key components of the project (Example: Dairy, Vermicomposting, Biogas, Apiary, Solar Lighting)	Seed processing, packaging and storage
6	Products/Output from the project	Processed paddy seed
7	Total Project Cost	Rs. 75,78,200
8	Fixed Capital Cost	Rs. 47,11,200
9	Working/Recurring capital	Rs 28,67,000
10	Bank Finance/ Self Finance	Bank Finance
11	Bank Loan Amount	Rs 65,33,680
12	Promoter Contribution (min 10% in case of bank loan)	Rs 10,44,520
13	Bank details: Name of the Bank, Branch, IFSC Code	
14	Assumed Interest Rate of Interest	11%
15	Subsidy Eligibility (40%, 50%)	
16	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Monthly equated instalments for 7 years
17	Key Financial Indicators:	
	1. Average Annual Net Profit	Rs. 20,93,189
	2. Debt Service Coverage Ratio (DSCR)	2.38
	3. Internal Rate of Return	24.57%
4. Break Even Point (BEP)	3 Years 5 months	
18	Estimated employment to be generated (nos.)	18

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
	Farmer Id of Individual, if available	
17	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/: FPO: , Proprietorship firm: Registration Certificate under Shops & Establishment Act,
Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC):
Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of
Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by: APICOL

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Cereal grains like paddy and wheat together constitute the main staple food in the country. Hence production of these crops ranks highest in quantity. The use of certified agricultural seeds ensures higher agricultural production. The certified seeds are produced and processed under Indian Seed Act 1996 (amended in 2002). These are sound, healthy and genetically pure with higher yields. The process consists of agricultural activity as well as processing activity under a license from State Authority. Seed being the most critical element in crop production system has been used since thousands of years. People used quality cleaned seed by winnowing. This is still an important process, but it is no longer adequate to supply the kind of seed needed by farmer.

Seed processing is a vital part of the seed production needed to move the improved genetic materials of the plant breeder into commercial channels for feeding the rapidly expanding world population. The farmer must get the quality seed that is free from all undesired materials because farmer's entire crop depends on it.

Seed sold to farmers contains weed or crop seed or inert material that make them unfit for sale without processing. These seed have various admixtures such as stems, seeds of other crops, spoil and sand particles, weeds, which hamper the germination quality and cropping yield.

Seed processing is an important constituent before seed is ready for use. There are various agencies government or private which are responsible for upgrading seed, improving planting condition of seed.

Advantages of seed processing:

1. This makes more uniform planting rates by proper sizing.
2. Improve seed germination quality.
3. Prevent financial losses for the farmers.
4. Prevent crops losses and other spread of diseases.
5. Promote trust and better services to farmers.

Market Potential:

The seed industry has witnessed a substantial growth in the past century, with farmers relying on purchasing seeds from market with better traits rather than relying on seeds from previous season's harvest. Developments in seed technology have increased the momentum of the industry's growth, and the introduction of genetically modified crops has further boosted the seed market. The shift in farming practices worldwide has necessitated adoption of commercially produced enhanced seed varieties by the farmers as opposed to using seeds from the last harvest. High yield, improved nutritional quality, reduced crop damage, disease resistance, etc. motivated farmers in investing in commercial seeds.

India has made phenomenal strides in production of food grains, yet there exists a vast scope for further improvement in productivity. Replacement of 10% seeds annually would ensure higher production. The farmers procure certified seeds from different suppliers. However, supply is far short of the demand. There is a tremendous scope for setting up seed processing units to meet the local demand and make the region self-sufficient in food grain production.

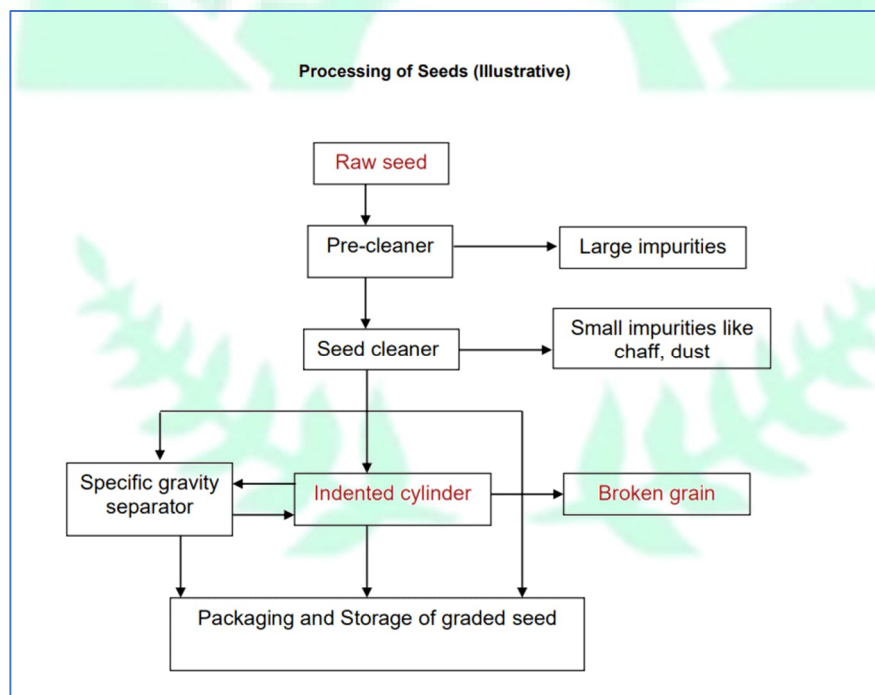
Basis and Presumption

- The processing plant will work for 240 days per annum.
- The unit would achieve its full capacity utilization over the period of time.
- The wages for skilled workers are taken as per prevailing rates in this type of industry.
- Interest rate for total capital investment is calculated @ 11% per annum.
- The entrepreneur is expected to raise 14-15% of the capital as margin money.
- The unit would construct its own building as per Seed Certification Authority specifications.
- Costs of machinery and equipment are based on average prices of manufacturers.

Location

Since the process consists of crop cultivation and processing activity, the plant should be located inside/near the farm wherein crop is cultivated. Availability of power, road connectivity and marketing links for supply of seed to various traders/users should be ensured.

Process of Seed Processing



Quality Control and Standards

As per State Seed Certification requirements.

Procurement Strategy of Raw Materials and Other Inputs



The unit will require approximately 5 Tons of seeds per day. The promoters must develop linkages with farmers of nearby areas to procure the required seeds. They should also develop linkages with farmers in other parts of the districts. Promoters to begin with will concentrate mainly on the nearby areas of operational districts to procure seeds for the unit.

Backward Linkages

The promoter to have well established backward linkages for its proposed units and it is expected that the raw material can be procured from the local area.

Forward Linkages

There is rising demand of quality and certified seeds in the State. The availability of seed processing unit with state-of-the-art technologies are few in region and hence concentrated effort needs to be given to build up the forward linkages of processed seeds.

Marketing Plan

The unit, shall sale its produce directly to famers, FPCs or it can also become supplier of processed seeds for OSSC and other Govt. agencies.

The promoters have existing tie-ups which will be leveraged for selling the produce. The promoters propose to seek the help of the existing marketing intermediaries to develop the market. However, in the future they intend to develop their own marketing team to ensure direct contact with markets for their products.

Market Segments

The promoters shall target two market segments for marketing of processed seeds. These are:

- Lead dealers/ companies in Odisha and India
- FPCs of Odisha and other States

Product packing

The company will have bags of 50 kgs weights initially which is suitable for the wholesale and dealer market. It will also use different packing materials for its product. The product mix is given below:

Product	Targeted customer segment
Processed Paddy	Farmers, OSSC, Private companies and input shops, FPCs



3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	5	%
3	Collection from Debtors (First Year)	10	Days
4	Collection from Debtors	10	Days
5	Payable to Creditors	15	Days
6	Drawing By Promoter	25	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	15	Days
12	Finished Goods in stock (on sales)	10	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	20	%
15	Working Capital Requirement	15	Days
17	Working Capital Utilization	100	%
18	No of Working Days	295	Days
	Yield	92	%

4. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total
A	Land				
1	Land Development	Sq. ft	8000	0.70	5,600
2	Fencing (Barbed wire/Green Fencing)	ft	335	60.00	20,100
	Sub Total				25,700
B	Civil Construction				
1	Threshing/drying platform	Sq. ft	3000	400.00	12,00,000
2	Plant building for processing	Sq. ft	1500	400.00	6,00,000
3	RM and FG Store	Sq. ft	1500	400.00	6,00,000
4	Office	Sq. ft	200	850.00	1,70,000
5	Labour shed	Sq. ft	250	350.00	87,500
	Sub Total				26,57,500
C	Water Supply				
1	Water Supply with overhead tank, pump and pipeline etc.				1,50,000
D	Electrification				
1	Electrical Installation (with transformer and DG Unit as required)				5,00,000



E Plant & Machinery					
Sl. No.	Particulars	Specification	Qty	Unit Price	Total
1	Pre-Cleaner		1	2,00,000	2,00,000
2	Seed Cleaner		1	2,10,000	2,10,000
3	Indent Cylinder		1	1,30,000	1,30,000
4	Specific Gravity Separator		1	2,50,000	2,50,000
5	Elevator up to 5m height		4	40,000	1,60,000
6	Vacuum Cleaner		1	10,000	10,000
7	Electronic moisture meter (Wet type)		1	20,000	20,000
8	Bag closer heavy duty		2	4,000	8,000
9	Weighing machine (100KG)		1	40,000	15,000
10	Weighing machine (300KG)		1	50,000	20,000
11	Installation, testing, commissioning of Machines			LS	1,50,000
12	Laboratory equipment like germinator, hot air oven, weighing balance etc.			LS	1,75,000
Total Plant and Machinery Cost					13,48,000
F Miscellaneous Expenditure (Misc. Fixed Asset)					
1	Insurance premium on Capital Exp				30,000
2	DPR Cost				
3	Other Misc. Exp.				
Total Miscellaneous Expenditure					30,000

4.2. Project Variable Expenses

Details of Recurring Expenditure						
Details of raw material						
Sl. No.	Items	Unit	Rate/Unit (Rs)	Qty/day (Kg)	Qty/annum (kg)	Total (Rs)
1	Raw paddy seeds	kg	20.00	3,000	8,85,000	1,77,00,000
2	Raw pulses seed (Black Gram)	kg	75.00	2,000	5,90,000	4,42,50,000
3	Cost of Gunny bags (20 kg each bag)	Nos.	20.00	414	1,22,130	24,42,600
4	Cost for Printing and Batch coding	Nos	3.00	276	81,420	2,44,260
Total				5,690	16,78,550	6,46,36,860

Details of salary and other benefits				
Sl. No.	Type of workers	No. of Worker	Salary Per Month/head (Rs)	Total Salary per annum (Rs)
1	Managers	1	20,000	2,40,000
2	Unskilled worker	12	8,000	11,52,000
3	Skilled Worker	5	12,000	7,20,000
Grand Total		18	40,000	21,12,000



4.3. Details of Sales

Details of sales						
Sl. No.	Type of products	Unit	Rate per Unit (Rs)	Quantity per day	Quantity per annum	Total (Rs)
1	Paddy Seed	Kg	27.00	2,760	8,14,200	2,19,83,400
2	Black Gram Seed	Kg	98.00	1,840	5,42,800	5,31,94,400
	Total			2,760	13,57,000	7,51,77,800

4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	20,59,297	32,12,779	36,01,709	42,02,728	49,81,902	55,45,921
Add: Introduced	10,44,520						
Add: Profit	13,53,777	22,24,481	15,89,930	20,02,019	24,40,174	24,13,019	26,28,920
Less: Drawing	3,39,000	10,71,000	12,01,000	14,01,000	16,61,000	18,49,000	20,44,000
Closing Capital	20,59,297	32,12,779	36,01,709	42,02,728	49,81,902	55,45,921	61,30,841
Term Loan from Bank	38,14,238	33,39,117	28,09,017	22,17,573	15,57,689	8,21,443	-
Current Liabilities							
Cash Credit from Bank	22,93,600	22,93,600	22,93,600	22,93,600	22,93,600	22,93,600	22,93,600
Sundry Creditors	16,15,922	27,14,750	30,28,650	33,67,150	37,31,950	39,18,550	41,14,500
Expenses Payable	4,42,700	5,69,900	6,22,300	6,78,500	7,39,000	7,75,900	8,14,900
Current Provisions	3,12,333	6,85,492	4,13,541	5,90,151	7,77,932	7,66,294	8,58,823
Total Current Liabilities	46,64,555	62,63,742	63,58,091	69,29,401	75,42,482	77,54,344	80,81,823
Total Liabilities	1,05,38,089	1,28,15,638	1,27,68,817	1,33,49,702	1,40,82,072	1,41,21,708	1,42,12,664
Assets							
Fixed Assets	46,55,500	46,55,500	46,55,500	46,55,500	46,55,500	46,55,500	46,55,500
Less Depreciation	5,57,950	10,46,245	14,73,930	18,48,832	21,77,732	24,66,507	27,20,255
Net Fixed Assets	40,97,550	36,09,255	31,81,571	28,06,668	24,77,768	21,88,993	19,35,245
Current Assets							
Sundry Debtors	12,53,000	21,05,000	23,48,400	26,10,900	28,93,800	30,38,500	31,90,400
Inventories	29,17,600	40,35,000	52,20,678	58,12,503	64,50,453	69,27,814	72,74,266
Cash and Bank Balance	2,50,600	4,21,000	4,69,700	5,22,200	5,78,800	6,07,700	6,38,100
Other Current Assets	20,19,339	26,45,383	15,48,468	15,97,431	16,81,251	13,58,701	11,74,653
Total Current Assets	64,40,539	92,06,383	95,87,246	1,05,43,034	1,16,04,304	1,19,32,715	1,22,77,419
Total Assets	1,05,38,089	1,28,15,638	1,27,68,817	1,33,49,702	1,40,82,072	1,41,21,708	1,42,12,664

4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	2,80,750	2,77,200	5,57,950
	2	2,52,675	2,35,620	4,88,295
	3	2,27,408	2,00,277	4,27,685
	4	2,04,667	1,70,235	3,74,902
	5	1,84,200	1,44,700	3,28,900
	6	1,65,780	1,22,995	2,88,775
	7	1,49,202	1,04,546	2,53,748

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	50	80	85	90	95	95	95
Revenue							
Sales	3,75,88,900	6,31,50,000	7,04,52,000	7,83,27,000	8,68,13,000	9,11,54,000	9,57,12,000
Opening Stock of Finished Goods	-	(12,74,200)	(21,40,678)	(23,88,203)	(26,55,153)	(29,42,814)	(30,89,966)
Closing Stock of Finished Goods	12,74,200	21,40,678	23,88,203	26,55,153	29,42,814	30,89,966	32,44,475
Total Income (A)	3,88,63,100	6,40,16,478	7,06,99,525	7,85,93,949	8,71,00,661	9,13,01,153	9,58,66,508
Expenditure							
Opening stock of Raw Material	-	16,43,400	27,60,800	30,80,000	34,24,300	37,95,300	39,85,000
Purchase (Net) of Material	3,23,18,430	5,42,95,000	6,05,73,000	6,73,43,000	7,46,39,000	7,83,71,000	8,22,90,000
Closing Stock of Raw material	16,43,400	27,60,800	30,80,000	34,24,300	37,95,300	39,85,000	41,84,300
Raw Material Consumption	3,06,75,030	5,31,77,600	6,02,53,800	6,69,98,700	7,42,68,000	7,81,81,300	8,20,90,700
Repair & Maintenance - Machinery (@2% of Cost)	93,110	95,000	99,800	1,04,800	1,12,200	1,20,100	1,28,600
Electricity expense	22,55,334	31,57,500	35,22,600	39,16,350	43,40,650	45,57,700	47,85,600
Insurance cost	1,00,000	1,05,000	1,07,100	1,09,300	1,11,500	1,13,800	1,16,100
Administrative salaries and wages	21,12,000	22,17,600	23,28,500	24,45,000	25,67,300	26,95,700	28,30,500
Other Misc Expenses [@2% of sales]	7,51,778	12,63,000	14,09,040	15,66,540	17,36,260	18,23,080	19,17,330

Total Cost	3,59,87,252	6,00,15,700	6,77,20,840	7,51,40,690	8,31,35,910	8,74,91,680	9,18,68,830
Profit Before Depreciation, Interest and Tax	28,75,848	40,00,778	29,78,685	34,53,259	39,64,751	38,09,473	39,97,678
Depreciation	5,57,950	4,88,295	4,27,685	3,74,902	3,28,900	2,88,775	2,53,748
Profit Before Interest and Tax	23,17,898	35,12,483	25,51,001	30,78,357	36,35,851	35,20,697	37,43,930
Interest on Term Loan	4,45,364	3,96,086	3,41,105	2,79,763	2,11,321	1,34,960	49,763
Interest on Working Capital Loan	2,06,424	2,06,424	2,06,424	2,06,424	2,06,424	2,06,424	2,06,424
Total Interest Paid	6,51,788	6,02,510	5,47,529	4,86,187	4,17,745	3,41,384	2,56,187
Profit Before Tax	16,66,110	29,09,973	20,03,472	25,92,170	32,18,105	31,79,313	34,87,743
Income Tax	3,12,333	6,85,492	4,13,541	5,90,151	7,77,932	7,66,294	8,58,823
Profit after Tax	13,53,777	22,24,481	15,89,930	20,02,019	24,40,174	24,13,019	26,28,920

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	2,50,600	4,21,000	4,69,700	5,22,200	5,78,800	6,07,700
Cash Inflow during the Period	1,10,96,039	43,11,964	34,28,429	29,48,231	33,82,154	32,36,207	33,94,196
Cash Outflow during the Period	1,08,45,439	41,41,564	33,79,729	28,95,731	33,25,554	32,07,307	33,63,796
Closing Cash & Bank Balance	2,50,600	4,21,000	4,69,700	5,22,200	5,78,800	6,07,700	6,38,100

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	4,45,363.63	8,71,206.00	4,25,842.38
2	3,96,085.64	8,71,206.00	4,75,120.36
3	3,41,105.27	8,71,206.00	5,30,100.73
4	2,79,762.63	8,71,206.00	5,91,443.37
5	2,11,321.49	8,71,206.00	6,59,884.51
6	1,34,960.42	8,71,206.00	7,36,245.58
7	49,762.94	8,71,206.00	8,21,443.06
Total	18,58,362.02	60,98,442.02	42,40,080.00

4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	3,75,88,900	6,31,50,000	7,04,52,000	7,83,27,000	8,68,13,000	9,11,54,000	9,57,12,000
Net Profit	13,53,777	22,24,481	15,89,930	20,02,019	24,40,174	24,13,019	26,28,920
Interest Paid	6,51,788	6,02,510	5,47,529	4,86,187	4,17,745	3,41,384	2,56,187
Cash Accruals (a)	20,05,565	28,26,991	21,37,459	24,88,206	28,57,919	27,54,403	28,85,107
Principal	4,25,842	4,75,120	5,30,101	5,91,443	6,59,885	7,36,246	8,21,443
Interest	6,51,788	6,02,510	5,47,529	4,86,187	4,17,745	3,41,384	2,56,187
Total (b)	10,77,630	10,77,630	10,77,630	10,77,630	10,77,630	10,77,630	10,77,630
DSCR	1.86	2.62	1.98	2.31	2.65	2.56	2.68
Average DSCR	2.38						

Calculation of Break-Even Point (BEP)							
Sales	3,88,63,100	6,40,16,478	7,06,99,525	7,85,93,949	8,71,00,661	9,13,01,153	9,58,66,508
Variable Cost	3,14,26,808	5,44,40,600	6,16,62,840	6,85,65,240	7,60,04,260	8,00,04,380	8,40,08,030
Contribution	74,36,292	95,75,878	90,36,685	1,00,28,709	1,10,96,401	1,12,96,773	1,18,58,478
Fixed Cost	57,70,182	66,65,905	70,33,214	74,36,539	78,78,296	81,17,460	83,70,735
BEP Sales	3,01,55,775	4,45,62,779	5,50,25,139	5,82,79,380	6,18,40,300	6,56,05,766	6,76,70,835
Average BEP sales	5,47,34,282						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
	Cash outflow at beginning			-75,78,200
1	31-03-2023	13,53,777	5,57,950	19,11,727
2	31-03-2024	22,24,481	4,88,295	27,12,776
3	31-03-2025	15,89,930	4,27,685	20,17,615
4	31-03-2026	20,02,019	3,74,902	23,76,921
5	31-03-2027	24,40,174	3,28,900	27,69,074
6	31-03-2028	24,13,019	2,88,775	27,01,794
7	31-03-2029	26,28,920	2,53,748	28,82,668
IRR		24.57%		
Payback Period		3 Years 5 Months		

4.10. Summary of Financial Details

Sl. No.	Name of Assets	Amount (INR)
1	Land Development and Fencing	25,700
2	Civil Construction	26,57,500
3	Irrigation/Water Supply	1,50,000
4	Electrification	5,00,000
5	Plant & Machinery	13,48,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	-
9	Other Misc. Exp.	-
	Total Fixed Cost	47,11,200
	Recurring	28,67,000
	Cost of Project	75,78,200



Detailed Project Report ***on*** ***Soya Chunk Processing***

Under MKUY

Name of the Entrepreneur/Entity:

Address:



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1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Soya Chunk Processing
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity ¹	2550 kg/day
4	Key components of the project	Processing, Packaging and Selling
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Soya Chunk
7	Total Project Cost	Rs. 1,65,58,000
8	Fixed Capital Cost	Rs. 1,42,84,000
9	Working/Recurring capital	Rs. 22,74,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 1,42,20,000
12	Promoter Contribution (min 10% of the project cost in case of bank loan)	Rs. 23,38,000
13	Assumed Rate of Interest	11%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators: 1. Average Annual Net Profit 2. Debt Service Coverage Ratio (DSCR) 3. Internal Rate of Return 4. Break Even Point (BEP)/Year	Rs. 49,53,377
		2.13
		26.45%
		3 Years and 6 Month
17	Estimated employment to be generated (nos.)	19

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in MKUY guideline.

¹ Capacity can be in terms of area or quantity.



2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative ² in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity ³	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e- learning/certificate courses, trainings undertaken etc.)	

² Representative should be authorized by the board/governing body of the entity.

³ Registration document:

Groups (SHG/PG/: FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Society/Trust: Darpan Unique Id



2.2. Project Consultant Details

DPR prepared by: APICOL

Please provide further details of the consultant:





2.3. Concept and Scope of the Project

Soya chunks or chunks are made of soy flour, which is a by-product of soy oil extraction. It has the same protein content as meat. It can be cooked quickly and easily, it can be used to cook a lot of dishes, such as soya pulao, soups, stir-fries etc. Soya chunks are the cheapest and safest food for well-being. Due to its good nutritive values, and medicinal qualities, soy chunks, and related food products became popular all over the world. They are also similar chewy characteristics on soaking in water. Also, they are free from cholesterol.

Raw Material

The Soy Flour or Soybean can both be used as raw materials but if soybeans are being used then the process starts with soybean processing into soy flour. The conversion of soy flour into defatted soy flour, then the actual soy chunks manufacturing process can start. The process discussed in this material is soya chunks manufacturing from defatted soy flour, thus the raw material required is Defatted Soy Flour & Packaging Material.

Defatted Soya Flour (Toasted) is obtained from selected, pre-cleaned, cracked, dehulled, and solvent 'Non-GMO' soybeans harvested by milling. It is a natural product in which no chemicals or preservatives are present. For packing, HDPE Bag with inner liners (food grade) is required, and to pack those bags for transportation in bulk, cardboard boxes are required.

Manufacturing Process

Defatted Soy Flour Storage before processing:

Because of poor flowability and bridging characteristics, defatted flour is hard to handle. Soybean meal takes more time to stabilize or consolidate. With increased moisture, a longer time frame, and small particles, this phenomenon gets more serious. Several processors are micro-millers and follow the policy of keeping shorter/smaller stocks to make available enough raw materials only for few batches. The speculative character of the markets also contributes to high procurement costs.

Flour Blending and pre-conditioning:

A screw conveyor is generally used for intake and transfer to conditioner or mixer. The raw material passes through the pre-conditioner or mixing cylinders where moisture can be applied evenly in water or steam, with a moisture content of 10 to 25%. If steam applied, it is carefully injected into the raw material to maintain it at moderate temperatures between 65°C and 100°C. The blending cylinders are vented to avoid excess vapor and unwanted volatile flavouring elements in the raw soy protein. In order to ensure the comprehensive and continued mixing by all foodstuffs entering the extruder barrel, flavours, colouring agents and other additives may also be added at that time. The preconditioning process is an effective way to initiate growth inhibitors found in many raw soy proteins.

Cooking Extrusion:

The pre-conditioner discharges pre-conditioned material directly into the barrel of cooking extruder. Here, the raw or preconditioned soy protein is significantly transformed. In the last 2-5 seconds of the extruder barrel, the temperature of this moist proteinaceous dough is quickly increased. Retaining times of 5-15 seconds, temperatures of 100 to 200°C, and moisture levels



of 15 to 30% all influence the protein dough quality just behind the die and the final product expansion.

Drying

The moisture content in the extrusion processing of textured proteins is high and the cooked product must therefore be dried for safe storage. Different Dryers are used for reducing the moisture content of the final product.

Dryers with different lengths, widths, and passes allow proper sizing and versatility of installation on existing or new installations for the extruder production.

Cooling:

Once the product comes out of dryer, it is still not cool enough for packaging. A cooling conveyor with several cooling fans used generally.

Packaging of products:

After the proper drying process, the chunks are ready for the packaging by using appropriate packaging material, the soya chunks are packed according to market demand in various size bags.

Market Potential

The market for soya nuggets is rising as healthcare-conscious In heap more on their plate. Although new players of the market have begun to deliver soya chunks, older players have increased demand power. In India, the soy nugget market is rising annually at a rate of between 25% and 30%, leading businesses to become more aggressive. In the household as well as in commercial food joints, hostels, hospitals, protective cuisines, and others, the demand for Soya Nuggets has increased due to its high content of proteins, cheap price, and taste as well as easy-to-cook nature. Since soy nuggets are an adequate food substitute, particularly in the vegan diet, for consumers similar to meat but are cheaper than meat. Different related soya Products face the problem of adequate storage, however, this problem is remedied for soy chunks, as dehydrated soy granules can be stored easily for approximately 12 months.

The soy granules have various domestic uses in food and beverage preparation in different regions. Soy granules have different minerals; vitamins, lecithin, and is flavones enriched and are very healthy for reducing cholesterol and preventing bone loss and cancer. For expectant moms, cardiac, diabetics, the aged personalities, soy is proposed by medical practitioners to improve their condition. The growing awareness among people about their health benefits is a major source of demand in the world soya market.

They often help to stimulate demand by growing applications in various end-use segments, such as livestock feed. Dedicated protein ingredients have the benefit of first-hand movers and improved customer acceptance to deter demand in the global soybean industry, on the other hand. The global soybean market will increase from US\$146.23 Billion in 2017 to US\$215,746 Billion by 2025, at a CAGR of 5.0 percent over the period between 2017 and 2025.



Export Potential & Sales Aspect

In 2019 there was a US\$ 40.5 trillion in the global soy food industry. Soybean is a type of legume originating in East Asia, with a low saturation but a high protein content, vitamin C, and folate content.

Iron, fiber, calcium, magnesium, potassium, phosphorus, and omega-3 fatty acids are strong sources. It has different health benefits because of its nutrient content, such as reducing blood cholesterol levels, raising bone density, and minimizing cancer danger. It is usually used in many recipes as an alternative to meat and is added to various vegan-friendly foods. The growing demand for plant-based foods confirms the soy market growth worldwide.

For the preparation of several things, soy milk, soybeans, tofu, tamari, tempeh, edamame, miso, natto, and teriyaki Soybeans have been used. Demand for tofu in particular for vegans and vegetarians is currently rising throughout the world. The lactose-intolerant user will eat an excellent replacement for cheese. Tofu's increasing sales are also certified in its shape, colour, taste, and texture to its resemblance to meat. Furthermore, because of the increasing consumer health awareness, other soy products such as snacks and drinks also experience steady global growth in demand.

Furthermore, companies invest in R&D to launch new varieties of soy foodstuffs to extend their product range and draw new customers.

As a growth lever for the global food market for soy, the nutritive value and versatility of these ingestible forms are significant. With health-conscious foods in mind, soy foods are an excellent alternative to milk, meat, and poultry-intensive diets. Recent surveys have shown that about 40% of consumers under the age of 35 eat soya at least one week, twice the age of 55. According to recent data, almost 80% of consumers have tried some of the most popular soy food items or drinks. Given these factors, over the forecast period 2020-2030, the global soy food market is forecast to expand in an impressive CAGR.

3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	5	%
3	Collection from Debtors (First Year)	15	Days
4	Collection from Debtors	15	Days
5	Payable to Creditors	20	Days
6	Drawing By Promoter	40	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	7	Days
12	Finished Goods in stock (on sales)	5	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	40	%
15	Working Capital Requirement	15	Days
16	Working Capital Utilisation	100	%
17	No. of Working Days	295	Days
18	Yield	90	%



4. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total
A	Land				
1	Land Development	sq. ft	7000	LS	4,900
2	Fencing (Barbed wire/Green Fencing)	ft	360	60	21,600
	Sub Total				26,500
B	Civil Construction				
1	Production area	sq. ft	3000	400.00	12,00,000
2	Store	sq. ft	2000	400.00	8,00,000
3	Office	sq. ft	200	850.00	1,70,000
4	Labour Shed	sq. ft	250	350.00	85,500
	Sub Total				22,57,000
C	Water Supply				
1	Water Supply with overhead tank and pump				2,50,000
D	Electrification				
1	Electrical Installation with transformer and DG Unit				5,00,000
Plant and Machinery					
Sl. No.	Particulars	Specification	Qty	Unit Price	total
1	Screw conveyor from ground level to Ribbon Mixture driven by 3 HP Gear Box and Motor	MOC MS	1		1,10,00,000
2	Ribbon Mixture M/C for mixing raw material having capacity of 500 kgs with 7.5 Motor and Gear Box	MOC MS	1		
3	Screw conveyor for conveying raw dry ingredients from ground to surge bean tank and 5HP Geared motor	MOC MS	1		
4	Surge bean tank capacity of 1500 kg with drive motor of 15 HP and 1 gear box of U700 vertical upward. Having diameter of 1200 mm and length 1500 mm	MOC MS	1		
5	Feed Screw conveyor for conveying ingredients from surge bean tank to Bitter Mixture. Screw derived with 3 HP Geared motor. And material of Screw	MOC SS304.	1		
6	Pre-conditioner or Mixture with Material with 28 Bitter for Mixing Material with 7.5 Hp Motor and Pulley	MOC SS304	1	10,00,000	
7	Extruder (contain 4 screwed, 1 front screwed, with 5 slotted head with 6 clamps set and 1 Main Shaft of diameter 160, material is Forge EN 24. Pulley of		1		



	36 inch and 13.5-inch 6 Grove C sec. Motor for extruder drive is 215 HP Motor. Heavy structure is made for this extruder with 20 MS plate.				
8	Cutter System m/c with 18 holes die with 5 HP Motor and Gear Box VFD controller For Speed adjustment. with its MS structure		1		
9	Belt conveyor with Food Grade belt m/c with material and drive with 2 HP Geared Motor		1		
10	Pneumatic System M/C 7.5 HP with Material for Caring Material from conveyor to Drier with Rotary Valve with 2 HP Gear Box And Motor or Belt Conveyor / 2 HP Belt Conveyor		1		
11	TVP 1TPH Fluid – O – Bed Drier		1		
12	MS Structure for machines		1		
13	Vibrio M/C OD 1500 MM Two Deck with 3 HP Vibrio Motor		1		
14	Belt Conveyor M/C with Material with 2 HP Geared Motor		1		
15	Pre-wire Eclectic Panel for Above Equipment's		1		
16	Packing Machine (500g, 1000g)				
17	Stitching Machine (for Bulk Packing)				
	Total				1,10,00,000

4.2. Project Variable Expenses

Details of raw material						
Sl. No.	Items	Unit	Rate per Unit (Rs)	Qty/day	Qty per annum (kg)	Total (Rs)
1	Untoasted Soya Bean Flour	Kg	50.00	3000	8,85,000	4,42,50,000
2	Packaging material (Bulk Pack, 35kg)	Nos	10.00	41	11,948	1,19,475
3	Packaging material (500g. 1000g)	Nos	5.00	2835	8,36,325	41,81,625
	Total			5,876	17,33,273	4,85,51,100

Details of salary and other benefits				
Sl. No.	Type of workers	No. of worker	Salary per month/head (Rs)	Total salary per annum (Rs)
1	Manager	1	20,000	2,40,000
2	Unskilled	10	10,000	12,00,000
3	Skilled	7	12,000	10,08,000
4	Purchase and Store	1	15,000	1,80,000
	Grand Total	20	57,000	26,28,000



4.3. Details of Sales

Details of sales (Per annum @100% capacity)						
Sl. No.	Type of products	Unit	Rate/Unit (Rs)	Quantity per day	Quantity per annum	Total (Rs)
1	Soya Chunk (Bulk Pack)	Kg	80	1350	3,98,250	3,18,60,000
2	Small Pack (500g, 1000g)	Kg	90	1350	3,98,250	3,58,42,500
	Total			2,700	7,96,500	6,77,02,500





4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	-	28,86,683	36,98,467	46,05,600	57,88,902	71,72,724	87,17,302
Add: Introduced	23,38,000						
Add: Profit	9,14,683	32,78,784	39,78,133	50,43,302	61,66,822	73,57,578	79,34,335
Less: Drawing	3,66,000	24,67,000	30,71,000	38,60,000	47,83,000	58,13,000	66,61,000
Closing Capital	28,86,683	36,98,467	46,05,600	57,88,902	71,72,724	87,17,302	99,90,637
Term Loan from Bank	1,15,64,478	1,01,23,950	85,16,724	67,23,513	47,22,793	24,90,553	-
Current Liabilities							
Cash Credit from Bank	13,64,400	13,64,400	13,64,400	13,64,400	13,64,400	13,64,400	13,64,400
Sundry Creditors	16,18,370	25,48,933	28,54,867	31,85,000	35,41,000	39,24,667	41,20,933
Expenses Payable	5,15,500	6,89,400	7,55,000	8,25,400	9,01,000	9,82,000	10,31,700
Current Provisions	1,24,150	11,37,336	14,37,057	18,93,558	23,75,067	28,85,390	31,32,572
Total Current Liabilities	36,22,420	57,40,069	64,11,324	72,68,358	81,81,467	91,56,457	96,49,605
Total Liabilities	1,80,73,581	1,95,62,486	1,95,33,648	1,97,80,773	2,00,76,984	2,03,64,312	1,96,40,242
Assets							
Fixed Assets	1,42,27,500	1,42,27,500	1,42,27,500	1,42,27,500	1,42,27,500	1,42,27,500	1,42,27,500
Less Depreciation	20,08,750	37,28,725	52,01,988	64,64,416	75,46,620	84,74,719	92,71,007
Net Fixed Assets	1,22,18,750	1,04,98,775	90,25,513	77,63,084	66,80,880	57,52,781	49,56,493
Current Assets							
Sundry Debtors	16,92,600	26,65,800	29,85,700	33,31,000	37,03,300	41,04,500	43,09,700
Inventories	11,30,688	14,56,388	18,87,900	21,10,033	23,49,717	26,08,117	28,10,550
Cash and Bank Balance	3,38,600	5,33,200	5,97,200	6,66,200	7,40,700	8,20,900	8,62,000
Other Current Assets	26,92,944	44,08,323	50,37,335	59,10,455	66,02,388	70,78,015	67,01,499
Total Current Assets	58,54,831	90,63,711	1,05,08,135	1,20,17,689	1,33,96,104	1,46,11,531	1,46,83,749
Total Assets	1,80,73,581	1,95,62,486	1,95,33,648	1,97,80,773	2,00,76,984	2,03,64,312	1,96,40,242



4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	2,50,750.00	17,58,000	20,08,750
	2	2,25,675.00	14,94,300	17,19,975
	3	2,03,107.50	12,70,155	14,73,263
	4	1,82,796.75	10,79,632	12,62,429
	5	1,64,517.08	9,17,687	10,82,204
	6	1,48,065.37	7,80,034	9,28,099
	7	1,33,258.83	6,63,029	7,96,288

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	50	75	80	85	90	95	95
Revenue							
Sales	3,38,51,250	5,33,16,000	5,97,14,000	6,66,19,000	7,40,65,000	8,20,89,000	8,61,94,000
Opening Stock of Finished Goods	-	(5,64,188)	(8,88,600)	(9,95,233)	(11,10,317)	(12,34,417)	(13,68,150)
Closing Stock of Finished Goods	5,64,188	8,88,600	9,95,233	11,10,317	12,34,417	13,68,150	14,36,567
Total Income (A)	3,44,15,438	5,36,40,413	5,98,20,633	6,67,34,083	7,41,89,100	8,22,22,733	8,62,62,417
Expenditure							
Opening stock of Raw Material	-	5,66,500	8,92,200	9,99,300	11,14,800	12,39,400	13,73,700
Purchase (Net) of Material	2,42,75,550	3,82,34,000	4,28,23,000	4,77,75,000	5,31,15,000	5,88,70,000	6,18,14,000
Closing Stock of Raw material	5,66,500	8,92,200	9,99,300	11,14,800	12,39,400	13,73,700	14,42,400
Raw Material Consumption	2,37,09,050	3,79,08,300	4,27,15,900	4,76,59,500	5,29,90,400	5,87,35,700	6,17,45,300
Repair & Maintenance- Machinery (@5% of Cost)	1,42,575	1,49,800	1,57,300	1,65,200	1,73,500	1,82,200	1,91,400
Electricity expense	27,08,100	42,65,300	47,77,200	53,29,600	59,25,200	65,67,200	69,01,000
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500



Administrative salaries and wages	26,28,000	27,59,400	28,97,400	30,42,300	31,94,500	33,54,300	35,22,100
Other Misc Expenses [@2% of sales]	6,77,025	10,66,320	11,94,280	13,32,380	14,81,300	16,41,780	17,25,248
Total Cost	2,98,94,750	4,61,80,620	5,17,75,180	5,75,63,780	6,38,01,500	7,05,19,680	7,41,25,548
Profit Before Depreciation, Interest and Tax	45,20,688	74,59,793	80,45,453	91,70,303	1,03,87,600	1,17,03,053	1,21,36,868
Depreciation	20,08,750	17,19,975	14,73,263	12,62,429	10,82,204	9,28,099	7,96,288
Profit Before Interest and Tax	25,11,938	57,39,818	65,72,191	79,07,875	93,05,396	1,07,74,954	1,13,40,581
Interest on Term Loan	13,50,309	12,00,902	10,34,205	8,48,219	6,40,711	4,09,190	1,50,877
Interest on Working Capital Loan	1,22,796	1,22,796	1,22,796	1,22,796	1,22,796	1,22,796	1,22,796
Total Interest Paid	14,73,105	13,23,698	11,57,001	9,71,015	7,63,507	5,31,986	2,73,673
Profit Before Tax	10,38,833	44,16,120	54,15,190	69,36,860	85,41,889	1,02,42,968	1,10,66,907
Income Tax	1,24,150	11,37,336	14,37,057	18,93,558	23,75,067	28,85,390	31,32,572
Profit after Tax	9,14,683	32,78,784	39,78,133	50,43,302	61,66,822	73,57,578	79,34,335

4.7. Projected Cash Flow

Period Ending:	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	3,38,600	5,33,200	5,97,200	6,66,200	7,40,700	8,20,900
Cash Inflow during the Period	2,00,82,331	71,16,408	61,22,649	71,62,765	81,62,135	92,60,667	96,00,286
Cash Outflow during the Period	1,97,43,731	69,21,808	60,58,649	70,93,765	80,87,635	91,80,467	95,59,186
Closing Cash & Bank Balance	3,38,600	5,33,200	5,97,200	6,66,200	7,40,700	8,20,900	8,62,000



4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	13,50,308.64	26,41,430.33	12,91,121.69
2	12,00,901.54	26,41,430.33	14,40,528.78
3	10,34,205.23	26,41,430.33	16,07,225.10
4	8,48,219.01	26,41,430.33	17,93,211.32
5	6,40,710.68	26,41,430.33	20,00,719.64
6	4,09,189.73	26,41,430.33	22,32,240.59
7	1,50,877.45	26,41,430.33	24,90,552.88
Total	56,34,412.28	1,84,90,012.28	1,28,55,600.00

4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	I	II	III	IV	V	VI	VII
Net Sales	3,38,51,250	5,33,16,000	5,97,14,000	6,66,19,000	7,40,65,000	8,20,89,000	8,61,94,000
Net Profit	9,14,683	32,78,784	39,78,133	50,43,302	61,66,822	73,57,578	79,34,335
Interest Paid	14,73,105	13,23,698	11,57,001	9,71,015	7,63,507	5,31,986	2,73,673
Cash Accruals (a)	23,87,788	46,02,482	51,35,134	60,14,317	69,30,329	78,89,564	82,08,008
Principal	12,91,122	14,40,529	16,07,225	17,93,211	20,00,720	22,32,241	24,90,553
Interest	14,73,105	13,23,698	11,57,001	9,71,015	7,63,507	5,31,986	2,73,673
Total (b)	27,64,226	27,64,226	27,64,226	27,64,226	27,64,226	27,64,226	27,64,226
DSCR	0.86	1.67	1.86	2.18	2.51	2.85	2.97
Average DSCR	2.13						

Calculation of Break-Even Point (BEP)							
Sales	3,44,15,438	5,36,40,413	5,98,20,633	6,67,34,083	7,41,89,100	8,22,22,733	8,62,62,417
Variable Cost	2,43,86,075	3,89,74,620	4,39,10,180	4,89,91,880	5,44,71,700	6,03,77,480	6,34,70,548
Contribution	1,00,29,363	1,46,65,793	1,59,10,453	1,77,42,203	1,97,17,400	2,18,45,253	2,27,91,868
Fixed Cost	89,90,530	1,02,49,673	1,04,95,264	1,08,05,344	1,11,75,511	1,16,02,285	1,17,24,961
BEP Sales	3,08,50,716	3,74,88,371	3,94,60,430	4,06,42,342	4,20,49,210	4,36,69,514	4,43,76,506
Average BEP sales	3,97,91,012						



Calculation of Internal Rate of Return (IRR)				
Sl. No.	Year	PAT	Depreciation	Cash Accrual
	Cash outflow at beginning			-1,65,58,000
1	31-03-2023	9,14,683	20,08,750	29,23,433
2	31-03-2024	32,78,784	17,19,975	49,98,759
3	31-03-2025	39,78,133	14,73,263	54,51,395
4	31-03-2026	50,43,302	12,62,429	63,05,730
5	31-03-2027	61,66,822	10,82,204	72,49,027
6	31-03-2028	73,57,578	9,28,099	82,85,677
7	31-03-2029	79,34,335	7,96,288	87,30,623
IRR		26.45%		
Payback Period		3 Years 6 Month		

4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount (Rs)
1	Land Development	26,500
2	Civil Construction	22,57,500
3	Irrigation/Water Supply	2,50,000
4	Electrification	5,00,000
5	Plant & Machinery	1,12,20,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	-
9	Other Misc. Exp.	-
	Total Fixed Cost	1,42,84,000
	Recurring	22,74,000
	Cost of Project	1,65,58,000