

PROJECT REPORT OF RED CHILLI POWDER PRODUCTION UNIT

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Red Chilli Powder Production Unit.

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

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



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PROJECT AT GLANCE

1 Name of Proprietor/Director	XXXXXXXXXX
2 Firm Name	XXXXXXXXXX
3 Registered Address	XXXXXXXXXX
4 Nature of Activity	XXXXXXXXXX
5 Category of Applicant	XXXXXXXXXX
6 Location of Unit	XXXXXXXXXX
7 Cost of Project	23.44 Rs. In Lakhs
8 Means of Finance	
i) Own Contribution	2.34 Rs. In Lakhs
ii) Term Loan	14.60 Rs. In Lakhs
iii) Working Capital	6.50 Rs. In Lakhs
9 Debt Service Coverage Ratio	3.28
10 Break Even Point	0.22
11 Power Requirement	20 KW
12 Employment	9 Persons
13 Major Raw Materials	Clean and dried chillies with stem obtained after primary processing
14 Details of Cost of Project & Means of Finance	

Cost of Project

Particulars	Amount in Lacs
Land	Owned/Leased
Building & Civil Work	Owned/Leased
Plant & Machinery	15.22
Furniture & Fixture	0.50
Other Misc Assets	0.50
Working Capital Requirement	7.22
Total	23.44

Means of Finance

Particulars	Amount in Lacs
Own Contribution	2.34
Term Loan	14.60
Working capital Loan	6.50
Total	23.44

1. INTRODUCTION



Increases Your Energy Levels Chilli (*Capsicum annuum* L.) is a vegetable that belongs to the Solanaceae family. Chillies come in over 400 different varieties and are known by common names such as chillies, chile, chilli peppers, bell peppers, red peppers, pod peppers, cayenne peppers, paprika, pimento, and capsicum in various parts of the world. Among the spices, dried chilli accounts for the bulk of intake. The dye 'capsanthin' is responsible for the red colour of chillies. The alkaloid 'capsaicin' contained in the pericarp and placenta of chillies gives them their biting pungency. Vitamins (especially A and C), potassium, magnesium, and iron are all abundant in chillies. Chillies are used to alleviate discomfort and have the capacity to raise the immune system, reduce cholesterol, and assist in the removal of gut parasites.

Chillies are grown in all Asian countries, as well as large parts of Africa, the United States, and Southern Europe. In India Andhra Pradesh, Maharashtra, Karnataka, and Tamil Nadu are the most significant chilli-growing states. Tamil Nadu, Maharashtra, Orissa, and Karnataka are the top producers of dry chillies. Chillies are commonly used in three forms: fresh green chillies, red chilli powder, and raw red chillies.

Chilli powder is prepared from ripe chilli. It is an important spice used as flavorings or condiments, in the tropics and subtropics and an indispensable item in the kitchen for everyday cooking in Bangladesh. Chilli is dried to make chilli powder and to store for both short and long-term storage. Chilli powder is made from ripe chilli peppers. In the tropics and subtropics, it's a

common spice for flavourings and condiments, and in India, it's a must-have in the kitchen for everyday cooking. Chillies are dried to make chilli powder and to store for both short and long periods of time. Colour and pungency are the two most important quality characteristics in chilli. Chilli's red colour is due to carotenoid pigments. The oxidation of carotenoid pigments that is mostly dependent on humidity, storage, temperature, atmosphere and light has contributed to the colour-deterioration of chilli powder. Chilli powder moisture content is an important factor during storage for colour preservation.

2. PRODUCT DESCRIPTION

2.1 PRODUCT USES

Chilli with stem, chilli without stem, crushed dried red chilli flakes, dried red chilli powder, chilli paste, chilli chutney, chilli seeds and chilli oil (oleoresin) are the various processed products of chillies used for culinary and commercial purposes.

2.2 RAW MATERIAL REQUIREMENT

The clean and dried chillies with stem obtained after primary processing is used as the raw material for the production of all the products.

2.3 MANUFACTURING PROCESS

- Raw Material Procurement: Raw materials should be received & stored in hygienic condition. The quality of the raw material should be checked carefully.
- The stems of the clean, dry chillies are sliced with a knife or a chilli stem cutting unit. In general, using a stem cutting system saves time and resources.
- The milling method is also known as the grinding process. For grinding, a hammer mill is commonly used. To produce the fine chilli powder, either the crushed material is moved 2-3 times through small hammer mills with centrifugal blowers, cyclone separators, and sifting machines, as well as a lump breaker between the hammer mills, or a big hammer mill is used.
- Chilli powder with conventional fragrance and consistency is obtained using an electric motor-driven kandap system that works on the principle of traditional pounding of chillies.
- Sieving is achieved using a fine mesh centrifugal sifter. Internal shaft with rubber blades rotates to crack lumps as it moves through fine mesh of ideal size to yield smooth fine chilli powder.

- The fine red chilli powder is vacuum-transported from one location to another inside the premises. For healthy packing, red chilli powder with a moisture content of less than 8% is recommended. Printed disposable pouches, pouches in mono-carton cases, high density polyethylene and Saran / Cello / Saran poly laminate pouches, and composite, rubber, and glass jars are used to package the chilli powder.

3. PROJECT COMPONENTS

3.1 Land /Civil Work

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities, cutting & filling area. Also, some of the area of building is required for office staff facilities, documentation, office furniture, etc. Thus, the approximate total area required for complete small-scale factory setup is 1000-1500 Sq. ft. approximately. Micro, small and medium enterprises are engaged in this work accounting for the total manufacturing units.

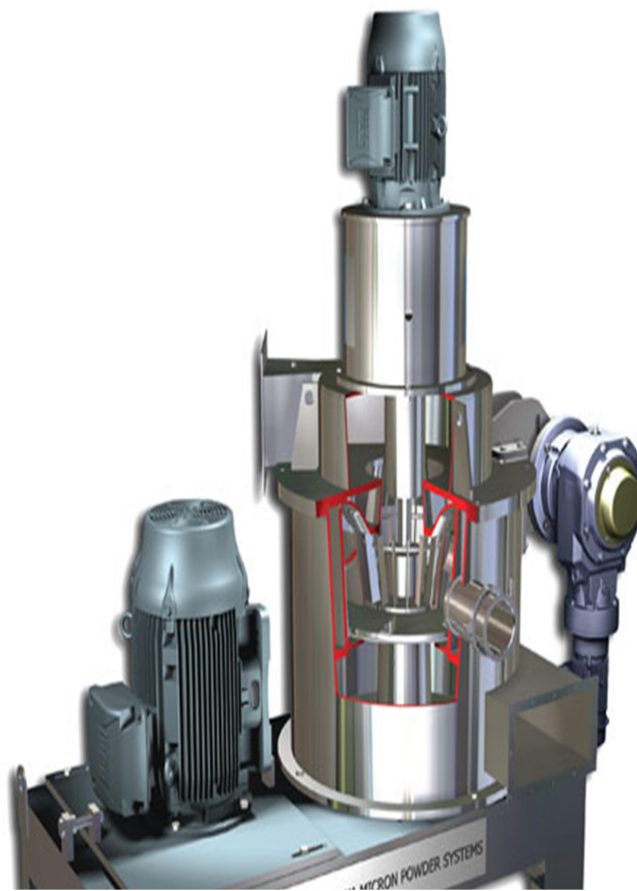
Land and building requirement may vary depending on the size of project.

We have not considered the cost of Land purchase & Building Civil work in the project. It is assumed that land & building will be on rent & approx. rental of the same will be Rs. 20,000-30,000 per month.

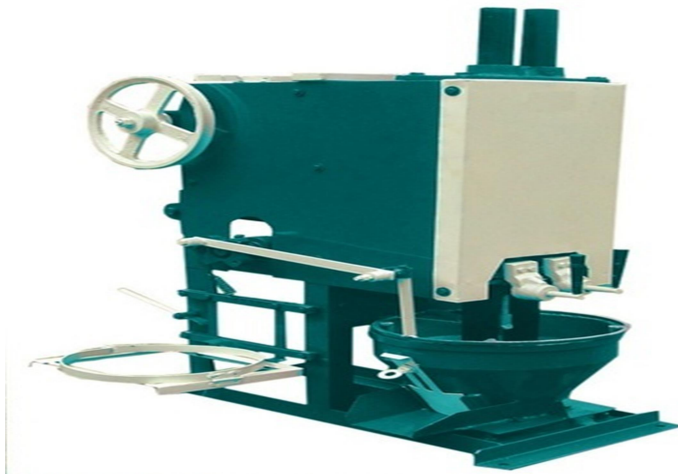
3.2 Plant & Machinery

This manufacturing unit will be manual or semi-automatic type. In manual process only few equipment's are required. For cutting and chopping stainless steel knives & plastic chopping boards are required.

- **Hammer Mill:** Hammer mill is commonly used for grinding. Either the crushed material is passed 2-3 times through the small hammer mills with centrifugal blowers.



- **Kandap Machine:** Electric motor operated kandap machine which work on the principle of traditional pounding of chillies is used obtain the chilli powder with traditional aroma and quality.



- **Sifting Machine:** These machines are used to chop given vegetables in required shape & size as per requirement.

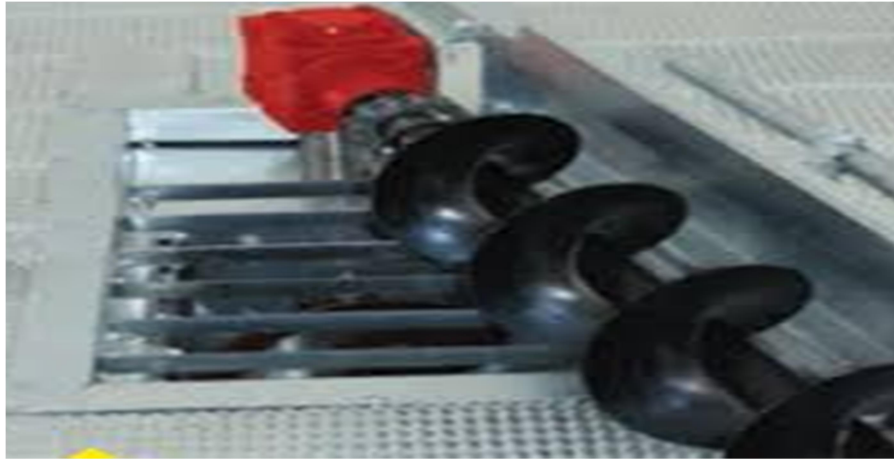


- **Packaging Machine:** This machine is used to pack the finished grinded chilly powder for market sale.



Equipment's:

- **Unloading Bins** These are large bins designed for unloading of grains & similar product; they are equipped with large rod mess to prevent big impurities from entering system.



- **Silos:** This Equipment is class of storage Equipment which is specifically designed for dry grain raw material of small granule composition. Usually used to store grains but can also be used to store cement & aggregate.



- **Bucket Elevator:** A bucket lift is also a seed leg and is a device for vertical transport, often grain materials.



- **Material handling equipment:** SS Utensils, trolley, bins Hand Gloves etc. Miscellaneous tools are required during processing.



4. LICENSE & APPROVALS

Basic License & Approvals required in this project:

- GST Registration
- Udyam Registration
- FSSAI Licesne
- Choice of a Brand Name of the product and secure the name with Trademark if require.

PROJECTED BALANCE SHEET**(in Lacs)**

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Liabilities</u>					
Capital					
Opening Balance		4.38	6.96	10.38	15.01
Add:- Own Capital	2.34				
Add:- Retained Profit	4.54	6.58	9.42	12.63	14.72
Less:- Drawings	2.50	4.00	6.00	8.00	12.00
Closing Balance	4.38	6.96	10.38	15.01	17.73
Term Loan	12.98	9.73	6.49	3.24	-
Working Capital Limit	6.50	6.50	6.50	6.50	6.50
Sundry Creditors	3.34	4.55	5.36	6.20	7.08
Provisions & Other Liabilities	0.40	0.60	0.72	0.86	1.04
TOTAL :	27.60	28.35	29.45	31.82	32.34
<u>Assets</u>					
Fixed Assets (Gross)	16.22	16.22	16.22	16.22	16.22
Gross Depreciation	2.41	4.46	6.20	7.69	8.95
Net Fixed Assets	13.81	11.76	10.02	8.54	7.27
Current Assets					
Sundry Debtors	5.48	6.78	7.99	9.25	10.61
Stock in Hand	5.45	6.67	7.85	9.09	10.40
Cash and Bank	1.61	2.13	2.09	2.94	2.06
Loans and advances/other current assets	1.25	1.00	1.50	2.00	2.00
TOTAL :	27.60	28.35	29.45	31.82	32.34

PROJECTED PROFITABILITY STATEMENT					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	30%	35%	40%	45%	50%
<u>SALES</u>					
RED CHILLI POWDER	96.70	119.73	141.00	163.30	187.26
Total	96.70	119.73	141.00	163.30	187.26
<u>COST OF SALES</u>					
Raw material cost	66.83	80.33	94.50	109.35	124.88
Electricity Expenses	1.15	1.34	1.54	1.73	1.92
Depreciation	2.41	2.05	1.74	1.48	1.26
Wages & labour	8.88	9.77	10.74	11.82	13.00
Repair & maintenance	1.45	1.80	2.11	2.45	2.81
Consumables	1.93	2.39	2.82	3.27	3.75
Packaging cost	2.18	2.69	3.17	3.67	4.21
Cost of Production	84.83	100.37	116.63	133.77	151.83
Add: Opening Stock	-	3.22	3.99	4.70	5.44
Less: Closing Stock	3.22	3.99	4.70	5.44	6.24
Cost of Sales	81.60	99.60	115.92	133.03	151.03
GROSS PROFIT	15.10	20.12	25.07	30.27	36.23
GROSS PROFIT RATIO	15.61%	16.81%	17.78%	18.54%	19.35%
Salary to Staff	3.36	3.70	4.07	4.47	5.37
Interest on Term Loan	1.43	1.26	0.91	0.55	0.19
Interest on working Capital	0.72	0.72	0.72	0.72	0.72
Rent	3.60	4.32	5.18	6.22	7.46
Selling & Administration Expenses	1.45	2.99	3.52	4.08	4.68
TOTAL	10.56	12.99	14.40	16.04	18.42
NET PROFIT	4.54	7.13	10.68	14.23	17.81
Taxation	-	0.55	1.26	1.60	3.09
PROFIT (After Tax)	4.54	6.58	9.42	12.63	14.72
NET PROFIT RATIO	4.69%	5.50%	6.68%	7.74%	7.86%

PROJECTED CASH FLOW STATEMENT					(in Lacs)
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>SOURCES OF FUND</u>					
Own Margin	2.34				
Net Profit	4.54	7.13	10.68	14.23	17.81
Depriciation & Exp. W/off	2.41	2.05	1.74	1.48	1.26
Increase in Cash Credit	6.50	-	-	-	-
Increase In Term Loan	14.60	-	-	-	-
Increase in Creditors	3.34	1.21	0.80	0.84	0.88
Increase in Provisions & Other liabilities	0.40	0.20	0.12	0.14	0.17
TOTAL :	34.13	10.59	13.35	16.70	20.13
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	16.22				
Increase in Stock	5.45	1.22	1.18	1.24	1.32
Increase in Debtors	5.48	1.30	1.21	1.26	1.36
Increase in loans and advances	1.25	- 0.25	0.50	0.50	-
Repayment of Term Loan	1.62	3.24	3.24	3.24	3.24
Drawings	2.50	4.00	6.00	8.00	12.00
Taxation	-	0.55	1.26	1.60	3.09
TOTAL :	32.52	10.07	13.39	15.84	21.01
Opening Cash & Bank Balance	-	1.61	2.13	2.09	2.94
Add : Surplus	1.61	0.53	-0.05	0.86	-0.89
Closing Cash & Bank Balance	1.61	2.13	2.09	2.94	2.06

CALCULATION OF D.S.C.R

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	6.95	8.63	11.16	14.12	15.98
Interest on Term Loan	1.43	1.26	0.91	0.55	0.19
Total	8.38	9.90	12.07	14.67	16.17
REPAYMENT					
Instalment of Term Loan	1.62	3.24	3.24	3.24	3.24
Interest on Term Loan	1.43	1.26	0.91	0.55	0.19
Total	3.06	4.51	4.15	3.79	3.44
DEBT SERVICE COVERAGE RATIO	2.74	2.20	2.91	3.87	4.70
AVERAGE D.S.C.R.					3.28

REPAYMENT SCHEDULE OF TERM LOAN								
							Interest	11.00%
Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance	
1st	Opening Balance	-						
	1st month		14.60	14.60	-	-	14.60	
	2nd month	14.60	-	14.60	0.13	-	14.60	
	3rd month	14.60	-	14.60	0.13	-	14.60	
	4th month	14.60	-	14.60	0.13	-	14.60	
	5th month	14.60	-	14.60	0.13	-	14.60	
	6th month	14.60	-	14.60	0.13	-	14.60	
	7th month	14.60	-	14.60	0.13	0.27	14.33	
	8th month	14.33	-	14.33	0.13	0.27	14.06	
	9th month	14.06	-	14.06	0.13	0.27	13.79	
	10th month	13.79	-	13.79	0.13	0.27	13.52	
	11th month	13.52	-	13.52	0.12	0.27	13.25	
	12th month	13.25	-	13.25	0.12	0.27	12.98	
					1.43	1.62		
2nd	Opening Balance							
	1st month	12.98	-	12.98	0.12	0.27	12.71	
	2nd month	12.71	-	12.71	0.12	0.27	12.44	
	3rd month	12.44	-	12.44	0.11	0.27	12.17	
	4th month	12.17	-	12.17	0.11	0.27	11.90	
	5th month	11.90	-	11.90	0.11	0.27	11.63	
	6th month	11.63	-	11.63	0.11	0.27	11.36	
	7th month	11.36	-	11.36	0.10	0.27	11.09	
	8th month	11.09	-	11.09	0.10	0.27	10.81	
	9th month	10.81	-	10.81	0.10	0.27	10.54	
	10th month	10.54	-	10.54	0.10	0.27	10.27	
	11th month	10.27	-	10.27	0.09	0.27	10.00	
	12th month	10.00	-	10.00	0.09	0.27	9.73	
					1.26	3.24		
3rd	Opening Balance							
	1st month	9.73	-	9.73	0.09	0.27	9.46	
	2nd month	9.46	-	9.46	0.09	0.27	9.19	
	3rd month	9.19	-	9.19	0.08	0.27	8.92	
	4th month	8.92	-	8.92	0.08	0.27	8.65	
	5th month	8.65	-	8.65	0.08	0.27	8.38	
	6th month	8.38	-	8.38	0.08	0.27	8.11	
	7th month	8.11	-	8.11	0.07	0.27	7.84	
	8th month	7.84	-	7.84	0.07	0.27	7.57	
	9th month	7.57	-	7.57	0.07	0.27	7.30	
	10th month	7.30	-	7.30	0.07	0.27	7.03	
	11th month	7.03	-	7.03	0.06	0.27	6.76	
	12th month	6.76	-	6.76	0.06	0.27	6.49	
					0.91	3.24		

4th	Opening Balance						
	1st month	6.49	-	6.49	0.06	0.27	6.22
	2nd month	6.22	-	6.22	0.06	0.27	5.95
	3rd month	5.95	-	5.95	0.05	0.27	5.68
	4th month	5.68	-	5.68	0.05	0.27	5.41
	5th month	5.41	-	5.41	0.05	0.27	5.14
	6th month	5.14	-	5.14	0.05	0.27	4.87
	7th month	4.87	-	4.87	0.04	0.27	4.60
	8th month	4.60	-	4.60	0.04	0.27	4.33
	9th month	4.33	-	4.33	0.04	0.27	4.06
	10th month	4.06	-	4.06	0.04	0.27	3.79
	11th month	3.79	-	3.79	0.03	0.27	3.51
	12th month	3.51	-	3.51	0.03	0.27	3.24
					0.55	3.24	
5th	Opening Balance						
	1st month	3.24	-	3.24	0.03	0.27	2.97
	2nd month	2.97	-	2.97	0.03	0.27	2.70
	3rd month	2.70	-	2.70	0.02	0.27	2.43
	4th month	2.43	-	2.43	0.02	0.27	2.16
	5th month	2.16	-	2.16	0.02	0.27	1.89
	6th month	1.89	-	1.89	0.02	0.27	1.62
	7th month	1.62	-	1.62	0.01	0.27	1.35
	8th month	1.35	-	1.35	0.01	0.27	1.08
	9th month	1.08	-	1.08	0.01	0.27	0.81
	10th month	0.81	-	0.81	0.01	0.27	0.54
	11th month	0.54	-	0.54	0.00	0.27	0.27
	12th month	0.27	-	0.27	0.00	0.27	-
					0.19	3.24	
	DOOR TO DOOR	60	MONTHS				
	MORATORIUM PERIOD	6	MONTHS				
	REPAYMENT PERIOD	54	MONTHS				

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