PROJECT REPORT

Of

CHICKPEAS

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Chickpeas Manufacturing 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**	XXXXXXXX	
2	**Firm Name**	XXXXXXXX	
3	**Registered Address**	XXXXXXXX	
4	**Nature of Activity**	XXXXXXXX	
5	**Category of Applicant**	XXXXXXXX	
6	**Location of Unit**	XXXXXXXX	
7	**Cost of Project**	22.16	Rs. In Lakhs
8	**Means of Finance**		
i)	**Own Contribution**	2.22	Rs. In Lakhs
ii)	**Term Loan**	12.96	Rs. In Lakhs
iii)	**Working Capital**	6.98	Rs. In Lakhs
9	**Debt Service Coverage Ratio**	3.13	
10	**Break Even Point**	36%	
11	**Power Requiremnet**	15	KW
12	**Employment**	10	Persons
13	**Major Raw Materials**	Dried pod free chickpeas	

14 Details of Cost of Project & Means of Finance

Cost of Project **Amount in Lacs**

Particulars	**Amount**
Land and building	Owned/Leased
Plant & Machinery	12.90
Furniture & Fixture	0.50
Other Misc Assets	1.00
Working Capital Requirement	7.76
Total	**22.16**

Means of Finance

Particulars	**Amount**
Own Contribution	2.22
Term Loan	12.96
Working capital Loan	6.98
Total	**22.16**

CHICKPEA PROCESSING UNIT

1. INTRODUCTION

Pulses are the seeds of legume plants that are edible. Pulses are classified as dry beans, dry large beans, dry peas, chickpeas, cow peas, pigeon peas, lentils, Bambara beans, vetches, lupins, and pulses by the United Nations Food and Agriculture Organization (FAO). Pulses are one of the most cost-effective proteins available, and they are a favourite food for people all over the world. It's a fancy term for chickpeas, lentils, and dried peas, which are tasty and high in protein. While pulses are legumes, the word "pulse" only applies to the dried crop. They're dried legumes with one to twelve seeds in each pod. Beans, lentils, peas, and other small seeds referred to as lentils or beans are used.

Chana, also known as chickpea, is an important pulse crop in India. It is a high-protein food that can be eaten as a seed or ground into flour. It is an extremely nutritious legume that comes in third place behind dry beans and peas in terms of importance. Desi and kabuli chana are two varieties of chana that are grown all over the world. The desi type accounts for 80% of global chana output, while the kabuli type accounts for the remaining 20%. India is the world's largest producer of chana, accounting for roughly 70% of global production. Desi chana is primarily grown in India and consists of brown split peas that are small in size and have a thick seed coat, while kabuli

chana is creamy white in colour and larger in size than desi chana and has a thin seed coat. Many nations, like India, South and Central America, and the Middle East, cultivate chickpea as a winter crop. It is sown from April to June in Australia and Canada, and harvested from November to December in both countries. Chana is grown in India during the Rabi season, with sowing taking place between October and December. The maturity period for desi chana is 95-105 days, while the maturity period for kabuli chana is 100-110 days. Harvesting takes place between February and April, when the leaves begin to dry and shed. Except in Andhra Pradesh and northern Karnataka, it is not a big crop in the southern states. Chana is India's most valuable pulse crop, accounting for 40% of the country's overall pulse crop. As a result, India is the world's leading producer of chickpeas. It is mostly used to make ‘dal' and ‘besan' in India (ground flour). However, owing to a high diversification of food preferences into vegetables and ready-to-eat foods, the value of pulses has declined in recent years. It is primarily grown in northern and central India, where it is consumed as "dal" alongside other cereals.

2. PRODUCT DESCRIPTION

2.1 PRODUCT USES

Chickpea is an important source of protein, dietary fibre, vitamin and amino-acids used for culinary purpose. It is used both for human use and for livestock feeding. This pulse is consumed whole, fried, boiled, and salted, or in the form of split pulse, which is cooked and consumed.

2.2 MANUFACTURING PROCESS

Processed chickpea is more hygienic and are processed in the industries in two stages: the first stage includes sorting/grading/cleaning/packaging steps after that the chickpea can be sold in the market or further processed by grinding steps.

- ***Raw material procurement-*** Firstly, the unshelled chickpeas are obtained from the marker or the farmer for further processing.
- ***Checking:*** Then the pulses are checked as many a times there are chances for the chickpeas to get destroyed during post-harvest storage.
- ***Cleaning:*** Unwanted contaminants such as plant bits, soil fragments, gravel, weed seed, other crop seed, and shriveled, torn, or destroyed seed are removed from the dried plants. The physical distinctions between healthy seed, bad seed, and unwanted pollutants are used to clean and upgrade the seed.

- ***Sorting/Grading:*** Sorting/grading is done to check the uniformity of the chickpeas. Seeds are cleaned and graded using a winnowing process followed by a series of mechanical sieves. Indented separators, disc separators, gravity separators, spiral separators, and drum separators are commonly used in addition to air cleaners and aspirators.
- ***Drying: Until*** storing the seed, it must be thoroughly dry. For short-term storage, a moisture level of 10-12 percent is optimal (up to 8 months).
- ***Packaging:*** The product is finally packed to be sold in the market. The seed should be stored in polythene-lined gunny bags or in secure storage systems after drying (metal bins or earthen containers). To prevent dampness to the seeds, keep the bags in a rodent-free space and stack them on wooden planks (no more than five in a stack) away from walls.

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.

- Workshop Area- This area includes the machinery setup and foundation space for all equipment's, work floor area, and cutting, washing and mixing. Total workshop area is approx. 600-700 Sqft.
- Inventory Area- This area includes the storage space for all the raw materials, tooling and die storage space and finished goods. Total inventory area is approx. 200-300 Sqft.
- Office Area – This space includes staff working region, their accommodation space, canteen area, medical facility etc. Total workshop area is approx. 100 -200 Sqft. This may be considered above the ground floor.
- Parking Space, Electricity Utensils Mounting Space, and Others. This could be approx. 100-200 Sqft.

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 automatic type and the plant capacity is set to 100-150 Kg/hour.

- **Grading Machine-** This machine is used to sort or grade the chickpeas into uniform sixes and texture.

- **Drum Separator:** They are mainly used to manipulate ferromagnetic or paramagnetic structures with high magnetic susceptibility and/or broad particle sizes. These separators can work in both dry and wet modes.

- **Vibrating pre-cleaner-** Vibro-Cleaners are used in seed cleaning and processing plants to remove significant impurities such as stick, buck, and leaves, as well as minor impurities such as fine soil and sand, from good produce. They are used to clean a variety of crops including grain, seeds, corn, wheat, rye, soybeans, oats, millet, and paddy.

- **Drying Machine:** The machine is used to dry the processed chickpeas not exceeding 12% such that it remains at its best quality for consumption.

- **De-stoner Machine:** De-stoner: It's a machine used to remove stones from given food grain. It's usually used in pulse & rice mills.

- **Chickpea Packaging Machine:** This machine is used to package the final processed chickpeas for sale.

Other Equipment's:

- Bucket Elevator with Gear Motor- Bucket elevators are designed to move flowing powders or bulk solids vertically.

S.N.	Particulars	Quantity/Amount
1	Grading machine	2,00,000
2	Drum separator	1,90,000
3	Vibratory pre cleaner	4,00,000
4	Drying machine	75,000
5	De-stoner machine	1,00,000
6	packaging machine	2,00,000
7	Other Equipment's	50,000
	Sub-total Amount	**12,90,000**

Note: Cost of the machine is inclusive of GST and other transportation cost.

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.
- NOC from Fire Department.

PROJECTED BALANCE SHEET **(in Lacs)**

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Liabilities					
Capital					
Opening Balance		3.50	5.34	7.92	10.56
Add:- Own Capital	2.22				
Add:- Retained Profit	4.98	6.34	8.09	9.63	10.96
Less:- Drawings	3.70	4.50	5.50	7.00	8.00
Closing Balance	3.50	5.34	7.92	10.56	13.51
Term Loan	11.52	8.64	5.76	2.88	-
Working Capital Limit	6.98	6.98	6.98	6.98	6.98
Sundry Creditors	3.36	4.34	4.90	5.48	6.09
Provisions & Other Liabilities	0.40	0.60	0.72	0.86	1.04
TOTAL :	**25.75**	**25.89**	**26.28**	**26.76**	**27.62**
Assets					
Fixed Assets (Gross)	14.40	14.40	14.40	14.40	14.40
Gross Depriciation	2.14	3.95	5.50	6.82	7.94
Net Fixed Assets	**12.27**	**10.45**	**8.90**	**7.58**	**6.46**
Current Assets					
Sundry Debtors	5.59	6.56	7.40	8.29	9.21
Stock in Hand	5.53	6.41	7.24	8.10	9.00
Cash and Bank	1.13	1.47	1.24	1.79	0.94
Loans and advances/other current assets	1.25	1.00	1.50	1.00	2.00
TOTAL :	**25.75**	**25.89**	**26.28**	**26.76**	**27.62**

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PROJECTED PROFITABILITY STATEMENT **(in Lacs)**

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	**50%**	**55%**	**60%**	**65%**	**70%**
SALES					
CHICKPEA	98.60	115.81	130.68	146.26	162.57
Total	**98.60**	**115.81**	**130.68**	**146.26**	**162.57**
COST OF SALES					
Raw material cost	67.20	76.56	86.40	96.72	107.52
Electricity Expenses	2.52	3.02	3.63	4.35	5.23
Depreciation	2.14	1.82	1.55	1.32	1.12
Wages & labour	9.18	10.10	11.11	12.22	13.44
Repair & maintenance	0.74	1.45	1.63	1.83	1.95
Consumables	0.99	1.16	1.31	1.46	1.63
Packaging cost	1.97	2.03	2.29	2.56	2.85
Cost of Production	84.73	96.13	107.91	120.46	133.73
Add: Opening Stock	-	3.29	3.86	4.36	4.88
Less: Closing Stock	3.29	3.86	4.36	4.88	5.42
Cost of Sales	81.45	95.56	107.41	119.94	133.19
GROSS PROFIT	**17.15**	**20.25**	**23.26**	**26.32**	**29.39**
Salary to Staff	5.16	5.68	6.24	6.87	7.55
Interest on Term Loan	1.27	1.12	0.81	0.49	0.17
Interest on working Capital	0.77	0.77	0.77	0.77	0.77
Rent	3.00	3.30	3.63	3.99	4.39
Selling & Administration Expenses	1.97	2.90	3.27	3.66	4.06
TOTAL	**12.17**	**13.76**	**14.71**	**15.77**	**16.95**
NET PROFIT	4.98	6.49	8.55	10.55	12.44
Taxation		0.15	0.46	0.91	1.48
PROFIT (After Tax)	4.98	6.34	8.09	9.63	10.96

PROJECTED CASH FLOW STATEMENT **(in Lacs)**

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
SOURCES OF FUND					
Own Margin	2.22				
Net Profit	4.98	6.49	8.55	10.55	12.44
Depriciation & Exp. W/off	2.14	1.82	1.55	1.32	1.12
Increase in Cash Credit	6.98	-	-	-	-
Increase In Term Loan	12.96	-	-	-	-
Increase in Creditors	3.36	0.98	0.56	0.58	0.61
Increase in Provisions & Other liabilities	0.40	0.20	0.12	0.14	0.17
TOTAL :	**33.03**	**9.48**	**10.77**	**12.60**	**14.34**
APPLICATION OF FUND					
Increase in Fixed Assets	14.40				
Increase in Stock	5.53	0.89	0.82	0.86	0.90
Increase in Debtors	5.59	0.98	0.84	0.88	0.92
Increase in loans and advances	1.25	- 0.25	0.50	- 0.50	1.00
Repayment of Term Loan	1.44	2.88	2.88	2.88	2.88
Drawings	3.70	4.50	5.50	7.00	8.00
Taxation	-	0.15	0.46	0.91	1.48
TOTAL :	**31.90**	**9.14**	**11.01**	**12.04**	**15.19**
Opening Cash & Bank Balance	-	1.13	1.47	1.24	1.79
Add : Surplus	1.13	0.35	-0.23	0.55	-0.85
Closing Cash & Bank Balance	**1.13**	**1.47**	**1.24**	**1.79**	**0.94**

CALCULATION OF D.S.C.R

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	7.12	8.16	9.64	10.95	12.08
Interest on Term Loan	1.27	1.12	0.81	0.49	0.17
Total	8.39	9.28	10.44	11.44	12.25
REPAYMENT					
Instalment of Term Loan	1.44	2.88	2.88	2.88	2.88
Interest on Term Loan	1.27	1.12	0.81	0.49	0.17
Total	2.71	4.00	3.69	3.37	3.05
DEBT SERVICE COVERAGE RATIO	**3.09**	**2.32**	**2.83**	**3.40**	**4.01**
AVERAGE D.S.C.R.					**3.13**

REPAYMENT SCHEDULE OF TERM LOAN							
					Interest		11.00%
Year	**Particulars**	**Amount**	**Addition**	**Total**	**Interest**	**Repayment**	**Closing Balance**
ist	Opening Balance	-					
	1st month		12.96	12.96	-	-	12.96
	2nd month	12.96	-	12.96	0.12	-	12.96
	3rd month	12.96	-	12.96	0.12	-	12.96
	4th month	12.96	-	12.96	0.12	-	12.96
	5th month	12.96	-	12.96	0.12	-	12.96
	6th month	12.96	-	12.96	0.12	-	12.96
	7th month	12.96	-	12.96	0.12	0.24	12.72
	8th month	12.72	-	12.72	0.12	0.24	12.48
	9th month	12.48	-	12.48	0.11	0.24	12.24
	10th month	12.24	-	12.24	0.11	0.24	12.00
	11th month	12.00	-	12.00	0.11	0.24	11.76
	12th month	11.76	-	11.76	0.11	0.24	11.52
					1.27	1.44	
2nd	Opening Balance						
	1st month	11.52	-	11.52	0.11	0.24	11.28
	2nd month	11.28	-	11.28	0.10	0.24	11.04
	3rd month	11.04	-	11.04	0.10	0.24	10.80
	4th month	10.80	-	10.80	0.10	0.24	10.56
	5th month	10.56	-	10.56	0.10	0.24	10.32
	6th month	10.32	-	10.32	0.09	0.24	10.08
	7th month	10.08	-	10.08	0.09	0.24	9.84
	8th month	9.84	-	9.84	0.09	0.24	9.60
	9th month	9.60	-	9.60	0.09	0.24	9.36
	10th month	9.36	-	9.36	0.09	0.24	9.12
	11th month	9.12	-	9.12	0.08	0.24	8.88
	12th month	8.88	-	8.88	0.08	0.24	8.64
					1.12	**2.88**	
3rd	Opening Balance						
	1st month	8.64	-	8.64	0.08	0.24	8.40
	2nd month	8.40	-	8.40	0.08	0.24	8.16
	3rd month	8.16	-	8.16	0.07	0.24	7.92
	4th month	7.92	-	7.92	0.07	0.24	7.68
	5th month	7.68	-	7.68	0.07	0.24	7.44
	6th month	7.44	-	7.44	0.07	0.24	7.20
	7th month	7.20	-	7.20	0.07	0.24	6.96
	8th month	6.96	-	6.96	0.06	0.24	6.72
	9th month	6.72	-	6.72	0.06	0.24	6.48
	10th month	6.48	-	6.48	0.06	0.24	6.24
	11th month	6.24	-	6.24	0.06	0.24	6.00

	12th month	6.00	-	6.00	0.05	0.24	5.76
					0.81	**2.88**	
4th	Opening Balance						
	1st month	5.76	-	5.76	0.05	0.24	5.52
	2nd month	5.52	-	5.52	0.05	0.24	5.28
	3rd month	5.28	-	5.28	0.05	0.24	5.04
	4th month	5.04	-	5.04	0.05	0.24	4.80
	5th month	4.80	-	4.80	0.04	0.24	4.56
	6th month	4.56	-	4.56	0.04	0.24	4.32
	7th month	4.32	-	4.32	0.04	0.24	4.08
	8th month	4.08	-	4.08	0.04	0.24	3.84
	9th month	3.84	-	3.84	0.04	0.24	3.60
	10th month	3.60	-	3.60	0.03	0.24	3.36
	11th month	3.36	-	3.36	0.03	0.24	3.12
	12th month	3.12	-	3.12	0.03	0.24	2.88
					0.49	**2.88**	
5th	Opening Balance						
	1st month	2.88	-	2.88	0.03	0.24	2.64
	2nd month	2.64	-	2.64	0.02	0.24	2.40
	3rd month	2.40	-	2.40	0.02	0.24	2.16
	4th month	2.16	-	2.16	0.02	0.24	1.92
	5th month	1.92	-	1.92	0.02	0.24	1.68
	6th month	1.68	-	1.68	0.02	0.24	1.44
	7th month	1.44	-	1.44	0.01	0.24	1.20
	8th month	1.20	-	1.20	0.01	0.24	0.96
	9th month	0.96	-	0.96	0.01	0.24	0.72
	10th month	0.72	-	0.72	0.01	0.24	0.48
	11th month	0.48	-	0.48	0.00	0.24	0.24
	12th month	0.24	-	0.24	0.00	0.24	-
					0.17	**2.88**	
	DOOR TO DOOR	60	MONTHS				
	MORATORIUM PERIOD	6	MONTHS				
	REPAYMENT PERIOD	54	MONTHS				

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