

PROJECT REPORT

Of

SOY NUGGETS

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Soy Nuggets**.

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.]



Lucknow Office: Sidhivinayak Building ,
27/1/B, Gokhley Marg, Lucknow-226001

Delhi Office : Multi Disciplinary Training
Centre, Gandhi Darshan Rajghat,
New Delhi 110002

Email : info@udyami.org.in
Contact : +91 7526000333, 444, 555

PROJECT PROFILE

'SOY NUGGETS'

INTRODUCTION:

Soya bean nuggets are normally known as vegetarian meat. The reason behind the same is because it possesses similar properties like original meat. Soya bean is a rich source of protein and among all vegetarian food products; it has highest level of protein (50%).It is prepared from defatted (DOC) soya flour by the process of extrusion cooking.

PRODUCT & ITS APPLICATION:

Soya Nuggets are as good as original meat. They possess similar properties in terms protein content. They are also similar chewy characteristics on soaking in water. Also, they are free from cholesterol, and thus heavily used as meat substitutes. These nuggets can be used in preparing various food products in households as well as in restaurants and can be important because of its high nutritional value.

INDUSTRY LOOKOUT AND TRENDS

Soybean meal is segmented on the basis of the raw material as Organic and inorganic. Due to rising health concerns people prefer organic soybean meals as organic products are good for health.

Soybean meal market is segmented on the basis of process of production as normal soybean meal, De-hulled [min 50% protein] Hipro Soybean meal, and De-hulled [min. 48% protein] Hipro Soybean meal, Defatted soya flour toasted, and de-fatted soya flakes toasted are available in the market. Normal soybean meal has low protein content than the De-hulled soybean meal which has around 45-46% of crude protein content. Hulls are by-product, therefore, are removed as they have no place in human food but are used for ruminants.

Soybean meal is segmented on the basis of application in food industry, beverage, dietary supplements, and healthcare products. In food market segment soymeal can be used for making soy-chunks and soy-granules. Flour of deflated soy is used to make nutritious biscuits. Isolates of protein from soymeal are used as protein drinks. Product from soymeal is healthy and nutritious thus market demand from food and beverage market segments is high. In healthcare products market segment, soymeal is used to make products having isoflavones which have chemical similarity to estrogen. Demand from dietary supplement market segment is higher as soymeal is used to make calcium, magnesium, iron, and folic acid rich supplements.

Soybean meal is segmented on the basis of distribution channel as supermarket, specialized stores, online stores and retail stores. Online stores are the most preferred mode of shopping for consumer and manufacturer as it is comfortable for both. Supermarkets also have gained good consumer base in last 10 years and are expected to grow at a significant rate.

Soybean meal is the highly nutritive meal for the farm animals; it is used as a feed for the farm animals like chicks, horse, sheep, pig, and fish. It has high protein content which is important for the health of the animals; it is the most used feed for livestock. It has been used as a standard for comparing the protein content of food products. It is approved in the United States as an ideal feed for livestock and its production has increased due to control over slaughterhouse by-product as feed and encouraged the use of soybean meal due to high protein content it has and thus, increase in demand as protein-rich source for livestock feed. Soybean meal market is forecasted to grow at the significant growth rate over near future due to its extremely high protein content which is around 47-49% of protein content and other nutritional contents like crude fibre.

MARKET POTENTIAL AND MARKETING ISSUES, IF ANY:

Soya bean being the principal crops in western and central parts of Madhya Pradesh, there is good amount of raw materials available for soya nuggets manufacturing. Setting up a plant in or near Madhya Pradesh can help in saving lot of transportation cost as well. Soya Nuggets with high quality and hygienically processing can be essential for preparing various gravies, curries, pulao, biryani etc. as it blends very well with both meat as well as vegetables. With implementation various food standards such as FSSAI, FSMS, ISI and ISO standards, there can be huge market growth for manufacturer for packed soya nuggets.

RAW MATERIAL REQUIREMENTS:

Defatted Soya flour is basic raw material required to prepare soya nuggets. For packing, HDPE Bag with inner liners (food grade) are required and to pack those bags for transportation in bulk, cardboard boxes are required.

MANUFACTURING PROCESS:

The ingredients comprising high protein dispersible defatted soya flour and water are extruded in the cooker extruder. The product obtained is in the form of small round balls with a moisture content of 17 - 18%. It is taken to the drier by a belt conveyer system where the product is dried at 100 to 105 degrees centigrade for 20 to 25 minutes. In the drier the moisture content reduces to 8%. From the drier the product is conveyed to the grader where grading takes place according to the size of the chunks. The product is then packed in consumer packs of 100 grams or in bulk of 20 kilograms in HDPE bags depending upon the market requirement.

STATUTORY / GOVERNMENT APPROVALS

The Ministry of Food Processing Industries has been operating several plan schemes for the development of processed food sector in the country during the 10th Plan. One of the schemes relates to the Technology Up-gradation/ Establishment/ Modernization of food processing industries.

The Indian food processing industry is regulated by several laws which govern the aspects of sanitation, licensing and other necessary permits that are required to start up and run a food business. The legislation that dealt with food safety in India was the Prevention of Food Adulteration Act, 1954 (hereinafter referred to as "**PFA**"). The PFA had been in place for over five decades and there was a need for change due to varied reasons which include the changing requirements of our food industry. The act brought into force in place of the PFA is the Food Safety and Standards Act, 2006 (hereinafter referred to as "**FSSA**") that overrides all other food related laws.

FSSA initiates harmonization of India's food regulations as per international standards. It establishes a new national regulatory body, the Food Safety and Standards Authority of India (hereinafter referred to as "**FSSAI**"), to develop science based standards for food and to regulate and monitor the manufacture, processing, storage, distribution, sale and import of food so as to ensure the availability of safe and wholesome food for human consumption. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

BACKWARD AND FORWARD INTEGRATIONS

The objective of the scheme is to provide effective and seamless backward and forward integration for processed food industry by plugging the gaps in supply chain in terms of availability of raw material and linkages with the market. Under the scheme, financial assistance is provided for setting up of primary processing centres/ collection centres at farm gate and modern retail outlets at the front end along with connectivity through insulated/ refrigerated transport.

The Scheme is applicable to perishable horticulture and non-horticulture produce such as, fruits, vegetables, dairy products, meat, poultry, fish, Ready to Cook Food Products, Honey, Coconut, Spices, Mushroom, Retails Shops for Perishable Food Products etc. The Scheme would enable linking of farmers to processors and the market for ensuring remunerative prices for Agri produce.

The scheme is implemented by agencies/ organizations such as Govt. / PSUs/ Joint Ventures/ NGOs/ Cooperatives/ SHGs / FPOs / Private Sector / individuals etc.

Backward Linkage:

- Integrated Pack-house(s) (with mechanized sorting & grading line/ packing line/ waxing line/ staging cold rooms/cold storage, etc.)
- Pre-Cooling Unit(s)/ Chillers
- Reefer boats
- Machinery & equipment for minimal processing and/or value addition such as cutting, dicing, slicing, pickling, drying, pulping, canning, waxing, etc.
- Machinery & equipment for packing/ packaging.

Forward Linkage:

- Retail chain of outlets including facilities such as frozen storage/ deep freezers/ refrigerated display cabinets/cold room/ chillers/ packing/ packaging, etc.
- Distribution center associated with the retail chain of outlets with facilities like cold room/ cold storage/ ripening chamber.

PROJECT AT A GLANCE

- 1 Name of the Entrepreneur XXXXXXXX
- 2 Constitution (legal Status) XXXXXXXX
- 3 Father's/Spouce's Name XXXXXXXX
- 4 Unit Address : XXXXXXXX
- Taluk/Block: XXXXX
- District : XXXXX State:
- Pin: XXXXX
- E-Mail : XXXXX
- Mobile XXXXX
- 5 Product and By Product : **Soy Nuggets**
- 6 Name of the project / business activity propose **Soy Nuggets**
- 7 Cost of Project : Rs25lac
- 8 Means of Finance
- Term Loan Rs.13.37 Lacs
- KVIC Margin Money - As per Project Eligibility
- Own Capital Rs.2.5 Lacs
- Working Capital Rs.9.13 Lacs
- 9 Debt Service Coverage Ratio : 3.86
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 6 Months
- 12 Break Even Point : 35%
- 13 Employment : 13 Persons
- 14 Power Requirement : 7.00 HP
- 15 Major Raw materials : **Soyabean flour**
- 16 Estimated Annual Sales Turnover : 193.38 Lacs
- 16 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lacs)

Particulars	Amount
Land	Rented/Owned
Building & Civil Work (2000 Sq Ft)	-
Plant & Machinery	13.58
Furniture & Fixtures	0.78
Pre-operative Expenses	0.50
Working Capital Requirement	10.14
Total	25.00

MEANS OF FINANCE

Particulars	Amount
Own Contribution @10%	2.50
Term Loan	13.37
Workign Capital Finance	9.13
Total	25.00

	General	Special
Beneficiary's Margin Money	10%	5%
(% of Project Cost)		

PLANT & MACHINERY

PARTICULARS	QTY.	RATE	AMOUNT IN RS.
Screw Mixer	1	120000	120000
Flour Sifter	1	55000	55000
Extruder	1	650000	650000
Water Dosing System	1	3000	3000
Hot Air Drier	1	80000	80000
Grader	1	95000	95000
Filling, Sealing and Packing Machine	1	200000	200000
Weighing Scale	1	20000	20000
Material Handling Equipment	1	85000	85000
Misc. Tools	1	50000	50000
Total			1,358,000.00

PROJECTED BALANCE SHEET

PARTICULARS	IST YEAR	IIND YEAR	IIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Capital Account	2.50	2.50	2.50	2.50	2.50
Retained Profit	9.52	18.67	30.17	44.27	60.82
Term Loan	13.37	10.03	6.69	3.34	0.57
Cash Credit	9.13	9.13	9.13	9.13	9.13
Sundry Creditors	8.08	9.43	10.77	12.12	13.47
Provisions & Other Liab	0.36	0.40	0.44	0.48	0.53
TOTAL :	42.96	50.15	59.69	71.84	87.02
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	14.36	14.36	14.36	14.36	14.36
Gross Dep.	2.08	3.88	5.42	6.73	7.85
Net Fixed Assets	12.28	10.48	8.94	7.63	6.51
Current Assets					
Sundry Debtors	6.45	7.47	8.75	9.85	10.95
Stock in Hand	11.78	18.67	21.33	24.00	26.67
Cash and Bank	9.95	10.78	17.65	27.04	39.23
Deposits & Advances	2.50	2.75	3.03	3.33	3.66
TOTAL :	42.96	50.15	59.69	71.84	87.02
	-	-	-	-	-

PROJECTED PROFITABILITY STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>A) SALES</u>					
Gross Sale	193.38	224.07	262.35	295.35	328.35
Total (A)	193.38	224.07	262.35	295.35	328.35
<u>B) COST OF SALES</u>					
Raw Mateiral Consumed	161.60	188.53	215.46	242.39	269.33
Elecricity Expenses	1.68	1.96	2.24	2.52	2.80
Repair & Maintenance	-	2.24	2.62	2.95	3.28
Labour & Wages	7.13	7.84	8.62	9.49	10.44
Depriciation	2.08	1.81	1.54	1.31	1.12
Consumables and Other Expense	3.87	4.48	5.25	5.91	6.57
Cost of Production	176.34	206.85	235.73	264.57	293.53
Add: Opening Stock /WIP	-	3.70	9.24	10.56	11.88
Less: Closing Stock /WIP	3.70	9.24	10.56	11.88	13.20
Cost of Sales (B)	172.65	201.31	234.41	263.25	292.21
C) GROSS PROFIT (A-B)	20.73	22.76	27.94	32.10	36.14
	11%	10%	11%	11%	11%
D) Bank Interest (Term Loan)	1.15	1.39	1.01	0.62	0.25
Bank Interest (C.C. Limit)	0.91	0.91	0.91	0.91	0.91
E) Salary to Staff	5.28	5.81	6.39	7.03	7.73
F) Selling & Adm Expenses Exp.	3.87	4.48	5.25	5.91	6.57
TOTAL (D+E)	11.21	12.60	13.56	14.47	15.46
H) NET PROFIT	9.52	10.16	14.38	17.63	20.69
I) Taxation	-	1.02	2.88	3.53	4.14
J) PROFIT (After Tax)	9.52	9.15	11.50	14.10	16.55

PROJECTED CASH FLOW STATEMENT

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>SOURCES OF FUND</u>					
Share Capital	2.50	-			
Reserve & Surplus	9.52	10.16	14.38	17.63	20.69
Depriciation & Exp. W/off	2.08	1.81	1.54	1.31	1.12
Increase in Cash Credit	9.13	-	-	-	-
Increase In Term Loan	13.37	-	-	-	-
Increase in Creditors	8.08	1.35	1.35	1.35	1.35
Increase in Provisions	0.36	0.04	0.04	0.04	0.05
TOTAL :	45.04	13.35	17.31	20.33	23.20
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	14.36	-	-	-	-
Increase in Stock	11.78	6.89	2.67	2.67	2.67
Increase in Debtors	6.45	1.02	1.28	1.10	1.10
Increase in Deposits & Adv	2.50	0.25	0.28	0.30	0.33
Repayment of Term Loan	-	3.34	3.34	3.34	2.77
Taxation	-	1.02	2.88	3.53	4.14
TOTAL :	35.08	12.52	10.44	10.94	11.01
Opening Cash & Bank Balance	-	9.95	10.78	17.65	27.04
Add : Surplus	9.95	0.83	6.87	9.39	12.19
Closing Cash & Bank Balance	9.95	10.78	17.65	27.04	39.23

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>Finished Goods</u>					
(15 Days requirement)	3.70	9.24	10.56	11.88	13.20
<u>Raw Material</u>					
(15 Days requirement)	8.08	9.43	10.77	12.12	13.47
Closing Stock	11.78	18.67	21.33	24.00	26.67

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars			Total Amount
Stock in Hand			11.78
Sundry Debtors			6.45
		Total	18.22
Sundry Creditors			8.08
Working Capital Requirement			10.14
Margin			1.01
Working Capital Finance			9.13

BREAK UP OF LABOUR

Particulars		Wages Per Month	No of Employees	Total Salary
Skilled Worker		8,000.00	3	24,000.00
Unskilled Worker		5,000.00	6	30,000.00
				54,000.00
Add: 10% Fringe Benefit				5,400.00
Total Labour Cost Per Month				59,400.00
Total Labour Cost for the year (In Rs. Lakhs)			9	7.13

BREAK UP OF SALARY

Particulars		Salary Per Month	No of Employees	Total Salary
Manager		12,000.00	1	12,000.00
Accountant		8,000.00	1	8,000.00
Sales Agent		10,000.00	2	20,000.00
Total Salary Per Month				40,000.00
Add: 10% Fringe Benefit				4,000.00
Total Salary for the month				44,000.00
Total Salary for the year (In Rs. Lakhs)			4	5.28

COMPUTATION OF DEPRECIATION

Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased	-	-	-	-
Addition	-	-	13.58	0.78	14.36
	-	-	13.58	0.78	14.36
Less : Depreciation	-	-	2.04	0.04	2.08
WDV at end of Ist year	-	-	11.54	0.74	12.28
Additions During The Year	-	-	-	-	-
	-	-	11.54	0.74	12.28
Less : Depreciation	-	-	1.73	0.07	1.81
WDV at end of IIInd Year	-	-	9.81	0.67	10.48
Additions During The Year	-	-	-	-	-
	-	-	9.81	0.67	10.48
Less : Depreciation	-	-	1.47	0.07	1.54
WDV at end of IIIrd year	-	-	8.34	0.60	8.94
Additions During The Year	-	-	-	-	-
	-	-	8.34	0.60	8.94
Less : Depreciation	-	-	1.25	0.06	1.31
WDV at end of IV year	-	-	7.09	0.54	7.63
Additions During The Year	-	-	-	-	-
	-	-	7.09	0.54	7.63
Less : Depreciation	-	-	1.06	0.05	1.12
WDV at end of Vth year	-	-	6.03	0.49	6.51

REPAYMENT SCHEDULE OF TERM LOAN

11.5%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
IST YEAR	Opening Balance						
	Ist Quarter	-	13.37	13.37	-	-	13.37
	Iind Quarter	13.37	-	13.37	0.38	-	13.37
	IIIrd Quarter	13.37	-	13.37	0.38	-	13.37
	Ivth Quarter	13.37	-	13.37	0.38	-	13.37
					1.15	-	
IIND YEAR	Opening Balance						
	Ist Quarter	13.37	-	13.37	0.38	0.84	12.54
	Iind Quarter	12.54	-	12.54	0.36	0.84	11.70
	IIIrd Quarter	11.70	-	11.70	0.34	0.84	10.87
	Ivth Quarter	10.87	-	10.87	0.31	0.84	10.03
					1.39	3.34	
IIIRD YEAR	Opening Balance						
	Ist Quarter	10.03	-	10.03	0.29	0.84	9.19
	Iind Quarter	9.19	-	9.19	0.26	0.84	8.36
	IIIrd Quarter	8.36	-	8.36	0.24	0.84	7.52
	Ivth Quarter	7.52	-	7.52	0.22	0.84	6.69
					1.01	3.34	
IIVTH YEAR	Opening Balance						
	Ist Quarter	6.69	-	6.69	0.19	0.84	5.85
	Iind Quarter	5.85	-	5.85	0.17	0.84	5.02
	IIIrd Quarter	5.02	-	5.02	0.14	0.84	4.18
	Ivth Quarter	4.18	-	4.18	0.12	0.84	3.34
					0.62	3.34	
VVTH YEAR	Opening Balance						
	Ist Quarter	3.34	-	3.34	0.10	0.84	2.51
	Iind Quarter	2.51	-	2.51	0.07	0.84	1.67
	IIIrd Quarter	1.67	-	1.67	0.05	0.55	1.12
	Ivth Quarter	1.12	-	1.12	0.03	0.55	0.57
					0.25	2.77	

CALCULATION OF D.S.C.R

PARTICULARS	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
<u>CASH ACCRUALS</u>	11.59	10.95	13.04	15.41	17.67
Interest on Term Loan	1.15	1.39	1.01	0.62	0.25
Total	12.75	12.35	14.05	16.04	17.91
<u>REPAYMENT</u>					
Instalment of Term Loan	3.34	3.34	3.34	2.77	2.77
Interest on Term Loan	1.15	1.39	1.01	0.62	0.25
Total	4.50	4.74	4.35	3.40	3.02
DEBT SERVICE COVERAGE R	2.83	2.61	3.23	4.72	5.93
AVERAGE D.S.C.R.			3.86		

COMPUTATION OF SALE

Particulars	IST YEAR	IIND YEAR	IIIRD YEAR	IVTH YEAR	VTH YEAR
Op Stock	-	8	21	24	27
Production	360	420	480	540	600
	360	428	501	564	627
Less : Closing Stock	8	21	24	27	30
Net Sale	352	407	477	537	597
Sale Price per MT	55,000.00	55,000.00	55,000.00	55,000.00	55,000.00
Sale (in Lacs)	193.38	224.07	262.35	295.35	328.35

COMPUTATION OF ELECTRICITY

(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	7	
Load Factor			0.7460	
Electricity Charges		per unit	8.00	
Total Working Days			300	
Electricity Charges (8 Hrs Per day)				100,262.40
Add : Minimim Charges (@ 10%)				
(B) D.G. SET				
No. of Working Days			300	days
No of Working Hours			1	Hour per day
Total no of Hour			300	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			2,400	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			1.56	
Add : Lube Cost @15%			0.23	
Total			1.79	
Total cost of Power & Fuel at 100%				2.80
Year		Capacity		Amount (in Lacs)
IST YEAR		60%		1.68
IIND YEAR		70%		1.96
IIIRD YEAR		80%		2.24
IVTH YEAR		90%		2.52
VTH YEAR		100%		2.80

BREAK EVEN POINT ANALYSIS

Year	I	II	III	IV	V
Net Sales & Other Income	193.38	224.07	262.35	295.35	328.35
Less : Op. WIP Goods	-	3.70	9.24	10.56	11.88
Add : Cl. WIP Goods	3.70	9.24	10.56	11.88	13.20
Total Sales	197.08	229.61	263.67	296.67	329.67
Variable & Semi Variable Exp.					
Raw Material & Tax	161.60	188.53	215.46	242.39	269.33
Electricity Exp/Coal Consumption at 85%	1.43	1.66	1.90	2.14	2.38
Manufacturing Expenses 80%	3.09	5.38	6.30	7.09	7.88
Wages & Salary at 60%	7.44	8.19	9.01	9.91	10.90
Selling & administrative Expenses 80%	3.09	3.59	4.20	4.73	5.25
Intt. On Working Capital Loan	0.91	0.91	0.91	0.91	0.91
Total Variable & Semi Variable Exp	177.57	208.26	237.78	267.17	296.65
Contribution	19.51	21.36	25.89	29.50	33.02
Fixed & Semi Fixed Expenses					
Manufacturing Expenses 20%	0.77	1.34	1.57	1.77	1.97
Electricity Exp/Coal Consumption at 15%	0.25	0.29	0.34	0.38	0.42
Wages & Salary at 40%	4.96	5.46	6.01	6.61	7.27
Interest on Term Loan	1.15	1.39	1.01	0.62	0.25
Depreciation	2.08	1.81	1.54	1.31	1.12
Selling & administrative Expenses 20%	0.77	0.90	1.05	1.18	1.31
Total Fixed Expenses	9.99	11.19	11.51	11.87	12.34
Capacity Utilization	60%	70%	80%	90%	100%
OPERATING PROFIT	9.52	10.16	14.38	17.63	20.69
BREAK EVEN POINT	31%	37%	36%	36%	37%
BREAK EVEN SALES	100.93	120.34	117.23	119.39	123.15

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