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PROJECT REPORT

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PROJECT:

SOYA MILK UNIT

PROJECT REPORT



Of

SOYA MILK UNIT

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Soya Milk 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.]

1 Name of the Entrepreneur

PROJECT AT A GLANCE

State: xxxxxxxxxx

2 Constitution (legal Status)

xxxxxxxxxx

3 Father / Spouse Name

xxxxxxxxxx

4 Unit Address :

xxxxxxxxxxxxxx

xxxxxxxxxxxxxxxxxxxxxxxxxx

5 Product and By Product

6 Name of the project / business activity proposed :

District :

xxxxxxx

Pin:

xxxxxxx

Mobile

xxxxxxx

7 Cost of Project

: **SOYA MILK**

8 Means of Finance

Term Loan

Own Capital

Working capital

SOYA MILK UNIT

: Rs.20.91 Lakhs

9 Debt Service Coverage Ratio

10 Pay Back Period

Rs.17.82 Lakhs

Rs.2.09 Lakhs

11 Project Implementation Period

Rs.1 Lakhs

12 Break Even Point

: 2.09

13 Employment

: 5 Years

14 Power Requirement

: 5-6 Months

15 Major Raw materials

: 28%

16 Estimated Annual Sales Turnover (Max Capacity)

: 8 Persons

17 Detailed Cost of Project & Means of Finance

: 30.00 HP

: Soyabean, Sugar, Chemical, Flavour and other material

COST OF PROJECT

: 44.79 Lakhs

MEANS OF FINANCE

(Rs. In Lakhs)

Particulars	Amount
Land	Own/ Rented
Building /Shed 800 Sq ft	4.00
Plant & Machinery	14.30
Furniture & Fixtures	1.50
Working Capital	1.11
Total	20.91
Particulars	Amount
Own Contribution	2.09
Working Capital(Finance)	1.00
Term Loan	17.82
Total	20.91

SOYA MILK

ABOUT PRODUCT:

Soya Milk is a inexpensive and remarkably versatile high protein food made from soybeans. It is a white liquid made from the seed. Unlike most other protein foods, milk is entirely free from cholesterol and low in fat (especially saturated fats).

The quality of protein is as high as that found in chicken. It is also good for dieters as this contains low calories. It is an excellent food for babies, children, elderly people, pregnant and lactating women since it contains vegetable protein which is very nutritious and easy to digest.

Soya milk and its derivatives are the cheapest source of protein, its derivatives tofu (soya paneer) makes tasty dishes like matar paneer, Palak paneer etc. and snacks like soya burger, patties, sandwiches, pakoras etc. and also used in desserts.



USE OF PRODUCT & MARKET:

With the increasing health consciousness among the general people, the use of soyabean is getting acceptance in the form of textured vegetable protein (popularly known as Soya baadi or Soya nuggets), Soya fortified wheat flour, Soya milk, Tofu and Soya curd etc. Being mainly the country of vegetarians, India has indeed a very great potential for Soya milk, paneer and curd. Experts predict that the Soya food industry will grow 20% annually over the next few years.

Machinery Requirement:

Basic machineries requirement are as follows:

1. Dry Bean Tank



These equipments are class of storage equipments which are specifically designed for dry raw material of small granule composition.

2. Soya bean Transferring Machine



This machine is basically used to transfer soya bean to Soaking and washing machine for further process.

3. Soya bean Soaking & Washing Machine



Soybean Soaking & Washing Machine use compressed air injection in water to roll the beans, separate bad Soybean and other impurities which float on the water and then are simply discharged with overflow to get the pure soybean.

4. Grinding and Separating Machine



Grinding & Separating Machine are used for grinding rice, soybeans and all sorts of beans into soy milk, rice milk and carrot cakes. Many small stores choose the versatile machine for a priority to lower the cost.

5. Okara Transportation Machine



After Grinding the soyabean, use the Okara Transportation Machine to discharge Okara.

6. Soymilk Cooking Machine



In this machine time and temperature for cooking are operated on the panel and thus facilitate cooking of condensed food. They can be used for cooking not only soy milk but also Rice Milk, soup and concentrated sauce like spaghetti sauce.

7. Soymilk Storage Tank



After the soy milk is prepared this equipment is used to store the soy milk. Therefore, they serve as machines for temporary storage and transports the right amount of soy milk to the next device in operation on the basis of device capacity.

8. Sugar Dissolving Machine



This machine is used to dissolve sugar in the soy milk in the right quantity and provides taste to the product.

9. Soy milk Twin Filter machine



Soy milk Twin Filter Machine removes the main residues from expansion of boiled pulp and whey sugar particles that are too large.

10. Homogenizer



This equipment is used in the production of liquid mixtures in which the said mixture, is forced through a small passage at high velocity. This machine reduces solute globule size to a very small size in order to prevent aggregate formation.

11. Soymilk Plate Heat Exchanger Machine



Soy milk Plate Heat Exchanger Equipment is a pasteurization process to improve soy milk's shelf life. Using Soy milk Plate Heat Exchanger Equipment destroys bacteria and improves soy milk's quality. Soy milk Plate Heat Exchanger Equipment is suitable for the production of soy milk (Long Life soy milk) or juice.

12. Soymilk Filling and Sealing Equipment



This machine is used to fill the finished product in pouches or cans of different sizes and the product is ready for sale in the market.

Cost of Machines:

S No.	Machine	Unit	Price
1.	Soyabean soaking and washing machine	1	2,00,000
2.	Plate Heat Exchanger	1	60000
3.	Homogenizer(Capacity 300 Ltr/hr.)	1	195000
4.	Soyabean Transferring Machine	1	175000
5.	Soyamilk storage Tank(Capacity 1000-10000ltr.)	1	80000
6.	Sugar Dissolving Machine	1	150000
7.	Soyamilk Filling and sealing equipment(Capacity 1500-2200 pouch/hour)	1	150000
8.	Grinding and separating machine	1	100000
9.	Okara Transporation Machine	1	90000
10.	Soy Milk cooking Machine	1	170000
11.	Soy Milk Twin Filter Machine	1	20000
12.	Other Machineries		40000

RAW MATERIAL COMPONENTS:

Basic Raw material requirement are as follows:

1. Soya bean
2. Chemicals, flavors, color and other material etc.
3. Packaging material for milk
4. Sugar

Manufacturing Process:

Soya milk is made from whole soya beans or full-fat soya flour. The dry beans are soaked in water for a minimum of three hours up to overnight depending on the temperature of the water. The rehydrated beans then undergo wet grinding with enough added water to give the desired solids content to the final product which has a protein content of 1–4%, depending on the method of production. The ratio of water to beans on a weight basis is 10:1 for traditional soya milk. The resulting slurry or purée is brought to a boil in order to improve its taste properties by heat inactivating soybean trypsin inhibitor, improve its flavor, and to sterilize the product. Heating at or near the boiling point is continued for a period of time, 15–20 minutes, followed by the removal of insoluble residues (soya pulp fiber) by filtration. Processing requires the use of an anti-foaming agent or natural defoamer during the boiling step. Bringing filtered soya milk to a boil avoids the problem of foaming. It is generally opaque, white or off-white in color, and approximately the same consistency as cow's milk. Raw soya milk may be sweetened, flavored, and fortified with micronutrients. Once fully processed, soya milk products are typically sold in plastic bottles or plastic-coated cartons, such as tetra packs.

Process Flow:



Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and auxiliary like Generator setup. 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 industrial setup is 1000 to 1200Sqft. Civil work will cost around 4 Lac (approx.)

Power Requirement –The power consumption required to run all the machinery could be approximated as 30 hp.

Manpower Requirement- There are requirement of skilled machine operators to run the machine set. Experience quality engineers are required for desired quality control. Some helpers are also required to transfer the material from one work station to other. Office staffs are required to maintain the documentation. The approximate manpower required is 8 including 1 Supervisor, 1 Plant operator, 1 Unskilled worker, 1 Helper and security Guard. 3 Skilled worker including Accountant, Manager and sales personal each.

Approvals & Registration Requirement:

Basic registration required in this project:

- GST Registration
- Udyog Aadhar Registration (Optional)
- Choice of a Brand Name of the product and secure the name with Trademark if require
- FSSAI Licence

Bank Term Loan: Rate of Interest is assumed to be at 11%

Depreciation: Depreciation has been calculated as per the Provisions of Income Tax Act, 1961

Implementation Schedule:

S No.	Activity	Time required
1.	Acquisition of premises	1-2 Months
2.	Procurement & installation of Plant & Machinery	1-2 Months
3.	Arrangement of Finance	1.5-2 Months
4.	Requirement of required Manpower	1 Month
5.	Commercial Trial Runs	1 Month
	Total time Required (some activities shall run concurrently)	5-6 Months

FINANCIALS

<u>PROJECTED CASH FLOW STATEMENT</u>					
PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	2.09	-			
Reserve & Surplus	2.95	6.10	8.10	10.54	13.12
Depriciation & Exp. W/off	2.70	2.32	2.00	1.72	1.48
Increase In Cash Credit	1.00				
Increase In Term Loan	17.82	-	-	-	-
Increase in Creditors	0.18	0.03	0.02	0.02	0.02
TOTAL :	26.74	8.45	10.12	12.28	14.62

<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	19.80	-	-	-	-
Increase in Stock	0.46	0.08	0.08	0.08	0.09
Increase in Debtors	1.26	0.24	0.23	0.25	0.26
Repayment of Term Loan	1.98	3.96	3.96	3.96	3.96
Taxation	-	0.61	1.21	2.64	3.28
Drawings	2.50	3.00	4.00	5.00	6.00
TOTAL :	26.00	7.88	9.48	11.92	13.59
Opening Cash & Bank Balance	-	0.74	1.31	1.94	2.30
Add : Surplus	0.74	0.57	0.63	0.36	1.04
Closing Cash & Bank Balance	0.74	1.31	1.94	2.30	3.33

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Capital Account					
Opening Balance	-	2.54	5.03	7.91	10.82
Add: Additions	2.09	-	-	-	-
Add: Net Profit	2.95	5.49	6.88	7.91	9.84
Less: Drawings	2.50	3.00	4.00	5.00	6.00
Closing Balance	2.54	5.03	7.91	10.82	14.66
CC Limit	1.00	1.00	1.00	1.00	1.00
Term Loan	15.84	11.88	7.92	3.96	-
Sundry Creditors	0.18	0.21	0.24	0.26	0.28
TOTAL :	19.56	18.12	17.07	16.04	15.94
<u>APPLICATION OF FUND</u>					

Fixed Assets (Gross)	19.80	19.80	19.80	19.80	19.80
Gross Dep.	2.70	5.01	7.01	8.73	10.21
Net Fixed Assets	17.11	14.79	12.79	11.07	9.59
Current Assets					
Sundry Debtors	1.26	1.50	1.73	1.98	2.24
Stock in Hand	0.46	0.53	0.61	0.69	0.77
Cash and Bank	0.74	1.31	1.94	2.30	3.33
TOTAL :	19.56	18.12	17.07	16.04	15.94

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PROJECTED PROFITABILITY STATEMENT					
PARTICULARS	I	II	III	IV	V
<u>A) SALES</u>					
Gross Sale	25.22	29.95	34.60	39.55	44.79
Total (A)	25.22	29.95	34.60	39.55	44.79
B) COST OF SALES					
Raw Material Consumed	5.51	6.43	7.07	7.72	8.36
Electricity Expenses	2.05	2.28	2.51	2.74	2.97
Repair & Maintenance	1.26	1.80	2.59	3.16	3.58
Labour & Wages	4.79	5.08	5.53	6.09	6.69
Depreciation	2.70	2.32	2.00	1.72	1.48
Cost of Production	16.31	17.91	19.71	21.42	23.09
Add: Opening Stock /WIP	-	0.11	0.43	0.49	0.56
Less: Closing Stock /WIP	0.11	0.43	0.49	0.56	0.64
Cost of Sales (B)	16.20	17.59	19.64	21.35	23.01
C) GROSS PROFIT (A-B)	9.02	12.36	14.96	18.19	21.78

	35.77%	41.27%	43.23%	46.00%	48.62%
D) Bank Interest (Term Loan)	1.93	1.58	1.14	0.71	0 .27
ii) Interest On Working Capital	0.11	0.11	0.11	0.11	0 .11
E) Salary to Staff	3.78	3.97	4.56	5.25	6 .04
F) Selling & Adm Expenses Exp.	0.25	0.60	1.04	1.58	2 .24
TOTAL (D+E)	6.08	6.26	6.86	7.65	8 .66
H) NET PROFIT	2.95	6.10	8.10	10.54	13.12
	11.7%	20.4%	23.4%	26.7%	29.3%
I) Taxation		0.61	1.21	2.64	3 .28
J) PROFIT (After Tax)	2.95	5.49	6.88	7.91	9 .84
Raw Material Consumed	Capacity		Amount (Rs.)		
	Utilisation				
I	45%		5.51		
II	50%		6.43	5% Increase in Cost	
III	55%		7.07	5% Increase in Cost	
IV	60%		7.72	5% Increase in Cost	

V	65%		8.36	5% Increase in Cost	

<u>COMPUTATION OF MAKING OF SOYA MILK</u>			
Item to be Manufactured Soya milk			
Manufacturing Capacity per day		100	kg
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		30,000	kg
Total Production per Annum		1,50,000	Can of 200gm each
Year		Capacity	SOYA MILK
		Utilisation	

I		45%	67,500.00
II		50%	75,000.00
III		55%	82,500.00
IV		60%	90,000.00
V		65%	97,500.00

COMPUTATION OF RAW MATERIAL

Item Name		Quantity of Raw Material	Unit	Unit Rate of	Total CostPer Annum (100%)
Soyabean		7,500.00	kg	90	6,75,000.00
Sugar		7,500.00	kg	20	1,50,000.00
Packing material		1,50,000.00	pcs	2	3,00,000.00
Additives & Flavours					1,00,000.00
Total					12,25,000.00

Total Raw material in Rs lacs					12.25
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<u>COMPUTATION OF SALE</u>					
Particulars	I	II	III	IV	V
Op Stock	-	1,125.00	1,250.00	1,375.00	1,500.00
Production	67,500.00	75,000.00	82,500.00	90,000.00	97,500.00

	67,500.00	76,125.00	83,750.00	91,375.00	99,000.00
Less : Closing Stock(5 Days)	1,125.00	1,250.00	1,375.00	1,500.00	1,625.00
Net Sale	66,375.00	74,875.00	82,375.00	89,875.00	97,375.00
Sale Price per tin	38.00	40.00	42.00	44.00	46.00
Sale (in Lacs)	25.22	29.95	34.60	39.55	44.79

<u>COMPUTATION OF CLOSING STOCK & WORKING CAPITAL</u>					
PARTICULARS	I	II	III	IV	V
<u>Finished Goods</u>					
(5 Days requirement)	0.36	0.43	0.49	0.56	0.64
<u>Raw Material</u>					
(5 Days requirement)	0.09	0.11	0.12	0.13	0.14
Closing Stock	0.46	0.53	0.61	0.69	0.77

COMPUTATION OF WORKING CAPITAL REQUIREMENT			
Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	0.46		
Less:			
Sundry Creditors	0.18		
Paid Stock	0.27	0.03	0.24
Sundry Debtors	1.26	0.13	1.14
Working Capital Requirement			1.38
Margin			0.15

MPBF			1.38
Working Capital Demand			1.00

<u>BREAK UP OF LABOUR</u>				
Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Supervisor		12,000.00	1	12,000.00
Plant Operator		10,000.00	1	10,000.00
Unskilled Worker		6,000.00	1	6,000.00
Helper		4,000.00	1	4,000.00
Security Guard		6,000.00	1	6,000.00

				38,000.00
Add: 5% Fringe Benefit				1,900.00
Total Labour Cost Per Month				39,900.00
Total Labour Cost for the year (In Rs. is) Lak			5	4.79
<u>BREAK UP OF SALARY</u>				
Particulars		Salary	No of	Total
		Per Month	Employees	Salary
Manager		12,000.00	1	12,000.00
Accountant cum store keeper		10,000.00	1	10,000.00
Sales		8,000.00	1	8,000.00
Total Salary Per Month				30,000.00

Add: 5% Fringe Benefit				1,500.00
Total Salary for the month				31,500.00
Total Salary for the year (In Rs. Lakhs)			3	3.78

<u>COMPUTATION OF DEPRECIATION</u>					
Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased		-	-	-
Addition	-	4 .00	14.30	1 .50	19.80

	-	4.00	14.30	1.50	19.80
		-	-	-	
TOTAL		4.00	14.30	1.50	19.80
Less : Depreciation	-	0.40	2.15	0.15	2.70
WDV at end of Ist year	-	3.60	12.16	1.35	17.11
Additions During The Year	-	-	-	-	-
	-	3.60	12.16	1.35	17.11
Less : Depreciation	-	0.36	1.82	0.14	2.32
WDV at end of IInd Year	-	3.24	10.33	1.22	14.79
Additions During The Year	-	-	-	-	-
	-	3.24	10.33	1.22	14.79
Less : Depreciation	-	0.32	1.55	0.12	2.00
WDV at end of IIIrd year	-	2.92	8.78	1.09	12.79

Additions During The Year	-	-	-	-	-
	-	2.92	8.78	1.09	12.79
Less : Depreciation	-	0.29	1.32	0.11	1.72
WDV at end of IV year	-	2.62	7.46	0.98	11.07
Additions During The Year	-	-	-	-	-
	-	2.62	7.46	0.98	11.07
Less : Depreciation	-	0.26	1.12	0.10	1.48
WDV at end of Vth year	-	2.36	6.34	0.89	9.59

REPAYMENT SCHEDULE OF TERM LOAN						11.0%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	17.82	-	17.82	0.49	-	17.82

	IInd Quarter	17.82	-	17.82	0.49	-	17.82
	IIIRD Quarter	17.82	-	17.82	0.49	0.99	16.83
	Ivth Quarter	16.83	-	16.83	0.46	0.99	15.84
					1.93	1.98	
II	Opening Balance						
	Ist Quarter	15.84	-	15.84	0.44	0.99	14.85
	IInd Quarter	14.85	-	14.85	0.41	0.99	13.86
	IIIRD Quarter	13.86	-	13.86	0.38	0.99	12.87
	Ivth Quarter	12.87		12.87	0.35	0.99	11.88
					1.58	3.96	
III	Opening Balance						
	Ist Quarter	11.88	-	11.88	0.33	0.99	10.89
	IInd Quarter	10.89	-	10.89	0.30	0.99	9.90

	IIIrd Quarter	9 .90	-	9.90	0.27	0.99	8.91
	Ivth Quarter	8 .91		8.91	0.25	0.99	7.92
					1.14	3.96	
IV	Opening Balance						
	Ist Quarter	7 .92	-	7.92	0.22	0.99	6.93
	Iind Quarter	6 .93	-	6.93	0.19	0.99	5.94
	IIIrd Quarter	5 .94	-	5.94	0.16	0.99	4.95
	Ivth Quarter	4 .95		4.95	0.14	0.99	3.96
					0.71	3.96	
V	Opening Balance						
	Ist Quarter	3 .96	-	3.96	0.11	0.99	2.97
	Iind Quarter	2 .97	-	2.97	0.08	0.99	1.98
	IIIrd Quarter	1 .98	-	1.98	0.05	0.99	0.99

	Ivth Quarter	0		0.99	0.03	0.99	-	0.00
					0.27	3.96		

Door to Door Period 60 Months
Moratorium Period 6 Months
Repayment Period 54 Months

CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
<u>CASH ACCRUALS</u>	5.64	.81 ⁷	8.88	9.62	11.32
Interest on Term Loan	1.93	1.58	.14 ¹	0.71	0.27

Total	7.57	9.39	0.02 ¹	10.33	11.59
<u>REPAYMENT</u>					
Repayment of Term Loan	1.98	3.96	3.96	3.96	3.96
Interest on Term Loan	1.93	1.58	1.14	0.71	0.27
Total	3.91	5.54	5.10	4.67	4.23
DEBT SERVICE COVERAGE RATIO	1.94	1.70	1.96	2.21	2.74

AVERAGE D.S.C.R.			2.09		

<u>COMPUTATION OF ELECTRICITY</u>				
<u>(A) POWER CONNECTION</u>				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	30	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
Electricity Charges				4,02,840.00
Add : Minimim Charges (@ 10%)				

<u>(B) DG set</u>				
No. of Working Days			300	days
No of Working Hours			0.3	Hour per day
Total no of Hour			90	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			720	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			0.47	
Add : Lube Cost @15%			0.07	
Total			0.54	

Total cost of Power & Fuel at 100%				4.57
Year		Capacity		Amount
				(in Lacs)
I		45%		2.05
II		50%		2.28
III		55%		2.51
IV		60%		2.74
V		65%		2.97

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