PROJECT PROFILE
SATOO / BESAN

1. INTRODUCTION

Satoo is made by processing gram. Gram is a commonly used pulse and dal or curry is made out of it which is a very popular item in majority of the Indian households. De husked grams are cleaned, roasted and pulverized to convert them in powder or flour form and this is known as Satoo. It is used in many vegetarian food and snack preparations. West Bengal is an ideal location as there are many dal mills in the region. Hence, selection of appropriate location has to be made after considering raw material sources as well as market potential. This is a very popular item of Bihar and Jharkhand.

2. OBJECTIVES

The objective of the profiles is to encourage and assist prospective entrepreneurs in MSME sector in and guiding making them aware of the opportunities of this sector. It is also being developed by the Directorate of the Food Processing Industries, Government of West Bengal to help entrepreneurs with knowledge about raw materials availability, knowledge of market, source of technology and plant and machinery suppliers. M/s ITV Agro & Food Technologies Pvt. Ltd., New Delhi has helped in developing the project profile.

3. RAW MATERIAL AVAILABILITY

The only raw material required will be gram. The annual requirement even at 100% will not be more than 95 tons. Price of gram would go up during off-season and therefore availability during this season has to be ensured. Different packing will require different size of plastic bags and for bulk packing of 10 kgs. and above gunny bags with liners shall be needed.

4. MARKET OPPORTUNITIES

a) Demand and supply

Gram is an integral part of the diet of Indians and apart from use in making curry or dal, its powder is used in preparing many vegetarian preparations. It is mixed in wheat flour in making rotis and a popular snacks item known as " Litti". The market for this product is scattered covering urban, semi urban and rural areas.

b) Marketing Strategy

Ideally, a small manufacturer should concentrate on such bulk consumers by undertaking direct supplies as the selling expenses are minimal and this benefit can be passed on to the buyer by way of discount .Bulk packing also results in saving of packing costs and assured orders bring down the per unit fixed costs over a period of time. Urban markets are saturated by some established manufacturers and thus for retailing, the concentration has to be on rural and semi-urban areas. Sattu is considered as staple diet in the region and hence there is a considerable demand.

5. PROJECT DESCRIPTION

a) Product & Its uses

Sattu is regularly used in many households and restaurants & eateries. It is used in many food and snack preparations especially during summer and is an item of mass consumption. Since it is made from gram, it has certain nutritional values as well.

b) Capacity

The proposed capacity of the plant is to manufacture 90 MT / annum of sattu/ besan.

c) Manufacturing process

Gram dal is cleaned with the help of pulse-cleaning machine and then roasted in an electrically operated roaster. It is then ground to obtain finer mesh size. Finally, it is

passed through sieves to remove any foreign material or coarse powder and then packed. The process loss is 4-5%.

6. PROJECT COMPONENTS & COST

a) Land & Building

A building of around 80 sq. mtrs. is adequate and hence instead of buying land and undertaking construction, a readymade premise is considered to save time as well as cost. The main processing area would require around 40 sq. mtrs, whereas balance space can be utilized for storage and packing. Cost of building is taken at Rs. 4.80 lacs.

b) Plant & Machinery

Rated production capacity to manufacture 90 tons / annum of sattu with 300 working days would require the following machine :

Item	**Qty**	**Price (Rs. in lacs)**
Dal Cleaning Machine	1	1.20
Grinder of 25 Kgs/Hr Capacity	1	3.10
Electrically –operated Roaster (20 kgs/hour roasting capacity)	1	4.50
Screen type Sieves	3	0.75
Bag Sealing Machine, weighing scales etc.	-	1.30
	Total	**10.85**

c) Miscellaneous Assets.

Some other assets like furniture and fixtures, appropriate storage facilities, working tables etc. shall be required for which a provision of Rs. 1.80 lacs is made.

d) Utilities

Power requirement shall be 20 HP whereas water will be required for potable and sanitation purposes and the requirement will be about 5000 ltrs. every day. The cost of utilities is estimated to be 2.30 lacs.

e) Prel. & Pre Operative Expenses

Expenses like registration, establishment & administrative, market survey expenditure, travelling, interest during implementation, trial run expenses etc. will be incurred prior to the commencement of commercial production for which a sum of Rs. 1.70 lacs is provided.

f) Working Capital Assessment

Capacity utilization in the first year is assumed to be 60%. To achieve this level, the working capital needs shall be as under :

(Rs. in lacs)

Particulars	**Period**	**Margin**	**Total**	**Bank**	**Promoters**
Stock of Raw material & packing material	½ month	30%	0.79	0.55	0.24
Stock of Finished Goods	½ month	25%	1.38	1.03	0.35
Receivable	½ month	25%	1.91	1.43	0.48
Total			4.08	3.01	1.07

g) Project cost & Means of finance

Item	**Amount (Rs. in lacs)**
Land and Building	4.80
Plant and Machinery	10.85
Miscellaneous Assets	1.80

P & P Expenses	1.70
Contingencies @ 10% on building and plant & machinery	1.56
Working capital margin	1.07
Total	21.78
Means of Finance	
Promoters' contribution	8.71
Term loan from Bank /FI	13.07
Total	21.78
Debt Equity Ratio	1.5:1
Promoters contribution	40%

Financial assistance in the form of grant is available from the Ministry of Food Processing Industries, Govt. of India, towards expenditure on technical civil works and plant and machinery for eligible projects subject to certain terms and conditions.

7) PROJECTED PROFITABILITY

a) Production Capacity

The rated production capacity of the plant is 90 tonnes per year whereas actual capacity utilization is expected to be 60% and 75% during 1st year and 2nd year respectively

b) Sales Revenue at 100%

It is assumed that the promoters would concentrate on bulk buyers at least during the first couple of years and then gradually increase retailing. Hence average sales realization is taken at Rs. 85,000 per ton. In other words sales value of 90 tonnes will be Rs. 76.50 lacs.

c) Raw Material Required at 100%

Assuming 5% process loss, the annual requirement of gram at 100% would be 95 tonnes. Considering the average purchase price of Rs. 33,000/- per ton , the total value will be Rs. 31.30 lacs whereas packing material cost will be Rs. 20,000/-

d) Projected Profitability **(Rs. in lacs)**

S. No.	**Particulars**	**1st year**	**2nd year**
A.	**Installed capacity**	**90 Tonnes**	
	Capacity Utilisation	60%	75%
	Sales Realisation	45.90	57.37
B.	**Cost of Production**		
	Raw material & packing materials	18.90	23.62
	Utilities	1.36	1.72
	Salaries	4.20	4.62
	Stores and Spares	1.40	1.74
	Repairs and Maintenance	1.60	2.00
	Selling Expenses @ 10%	4.59	5.73
	Administrative Expenses	1.20	1.50
	Total	**33.25**	**40.93**
C.	**Profit before Interest & Depreciation**	**12.65**	**16.44**
	Interest on Term Loan	1.30	1.05
	Interest on Working Capital	0.36	0.45
	Depreciation.	1.56	1.40
	Profit before tax	9.43	13.54
	Income-tax @ 20%	1.88	2.70
	Profit after tax	7.55	11.00
	Cash Accruals	9.11	12.40
	Repayment of Term Loan	Nil	2.50

e) Break Even Point Analysis *(Rs. in lacs)*

S. No.	Particulars	Amount	
(A)	**Sales**		**57.37**
(B)	**Variable Costs**		
	Raw material & Packing material	23.62	
	Utilities(70%)	1.20	
	Salaries (75%)	3.45	
	Stores and Spares	1.74	
	Selling Exps (70%)	3.43	
	Admn. Expenses (50%)	0.75	
	Interest on WC	0.45	**34.66**
(C)	**Contribution (A) – (B)**		**22.71**
(D)	**Fixed Costs**		**7.77**
(E)	**Break Even Point**		**35%**

f) Debt Service Coverage Ratio (DSCR) *(Rs. in lacs)*

Particulars	1st year	2nd year	3rd year
Cash Accruals	9.11	12.40	14.87
Interest on TL	1.30	1.05	0.80
Total (A)	10.41	13.45	15.67
Interest on TL	1.30	1.05	0.80
Repayment of TL	1.30	2.50	2.50
Total (B)	Nil	3.55	3.30
DSCR (A) / (B)	8.00	3.78	4.74
Average DSCR	5.50		

g) Internal Rate of Return (IRR)

Cost of the project is Rs. 21.78lacs

(Rs. in lacs)

Year	**Cash Accruals**	**36%**
1	9.11	6.65
2	12.40	6.60
3	14.87	5.70
4	14.82	4.20
Total		**22.16**

The IRR is around 36%

h) Manpower requirement

Particulars	**Nos.**	**Monthly**	**Total Monthly Salary (Rs.)**
Skilled workers	2	7500	15,000
Helpers	4	5000	20,000
		Total	**35,000**

8. ASSUMPTIONS

- The plant will work for 300 days in a year. :
- The operating capacity is 60% , 75%, 90 % during 1st year , 2nd year and 3rd year respectively.
- The interest on term loan is taken at 10% per annum and on working capital it is 12% per annum.
- Price of raw material and selling price of finished products is taken at Rs. 33,000 / ton and Rs. 85,000 respectively.

9. SOURCES OF TECHNOLOGY

CFTRI, Mysore, has successfully developed the technical know-how for the product. BIS has laid down the quality standard. The compliance under FSSAI act is a must.

10. PLANT & MACHINERY SUPPLIERS

1. Gurunanak Engg. Works (P) Ltd.
   C-33, Sector – 88, Phase – II, Gautam Budh Nagar (UP)
   Ph. : 9810378448 / 120-243674

2. Kailash Engg. Works
   H1-81, Napasar RIICO Industrial Area,
   Bikaner (Rajasthan)
   Ph. 151-2762534

3. Pagariya Food Products P. Ltd.
   15/1, 3rd cross, Kasturbanagar,
   Mysore Road, Bengalore – 560026
   Ph. 09953361350
   www. indiamart.com