PROJECT PROFILE

RICE FLAKES

1. INTRODUCTION

Rice flakes are prepared from paddy. It is also popularly known as Poha. It is a fast moving consumer item and generally eaten as breakfast item. It can be fried with spices and chilly to make a hot and tasty food item. Milk or curd is mixed with it and then eaten. It is also used in large quantities for making Chevda (farsan item) and many caterers use it for thickness of gravy. Since it is made from paddy, it is easily digestible. Most of its preparations can be made at a short notice and hence bulk of the households store it on regular basis. With proper storage its shelf life is 2-3 months. This is a common product and can be produced anywhere in the country. This note envisages West Bengal as the proposed location.

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 most critical material will be good quality paddy. It is grown in many parts of West Bengal but the location should be chosen carefully to ensure adequate supply round the year. Hence areas where 2 crops are taken in West Bengal are ideal. 1 Kg, 2 kg and 5 kgs capacity polythene bags and 25 kgs. capacity gunny bags (for bulk supply) shall be required for packing.

4. MARKET OPPORTUNITIES

a) Demand and supply

Rice flakes or poha is an important breakfast in semi-urban and rural areas and middle class families of urban India. Spicy or sweet preparation made from it are not only easy to make but they can be made at a short notice as well. Therefore it is extensively used all over the country round the year.

b) Marketing Strategy

Apart from households, its spicy preparations are sold in restaurants, roadside dhabas or eateries, canteens etc. There is also a fairly large bulk market. Farsan makers use it to make Chevda and it is also used to increase thickness of gravies. Thus, the manufacturer has to cater to both these segments.

5. PROJECT DESCRIPTION

a) Product & Its uses

Rice flakes are made from paddy and hence they are easy to digest. Spicy as well as sweet preparations are made from them in the category of fast food items. Since the manufacturing process involves roasting of rice, the shelf life of flakes is longer.

b) Capacity

The proposed capacity of the plant is to process 450 MT / annum of rice.

c) Manufacturing process

It is very well established and simple. Paddy is cleaned and graded to remove impurities and then it is soaked in hot water for about 45 minutes. Then it is dried and roasted. Subsequently, it is taken to mill for processing and flakes are passed through sieves to separate bran and broken flakes and to obtain flakes of fairly even size. During this process, yield of good quality flakes is around 80%, process loss and wastage are about 10% and balance 10% is bran which is used by cattle feed producers.

6. PROJECT COMPONENTS & COST

a) Land & Building

A plot of land of about 250 sq.mtrs with built-up area of 75 sq. mtrs. is adequate. Land may cost Rs. 1.25 lacs, whereas building will cost around Rs. 4.50 lacs . The main production area would require about 40 sq. mtrs. and godown, packing and other facilities can be accommodated in the remaining 35 sq.mtrs.

b) Plant & Machinery

It is suggested to install machinery to process around 450 tonnes of paddy every year with 300 working days.

Item	**Qty**	**Price (Rs. in lacs)**
Poha mill with accessories and electric motors	2	3.50
Electrically operated roaster	1	2.10
Coal-fired furnace	1	0.60
Paddy soaking tanks of 200 kg. cap	4	0.50
Sieves	4	0.30
Sealing machine, weighing scales etc.	-	0.50
	Total	**7.50**

c) Miscellaneous Assets

A provision of Rs. 1.30 lacs would take care of other items like furniture and fixtures, storage facilities, packing table etc.

d) Utilities

25 HP power connection shall be required whereas per day water requirement for processing and other purposes will be 10,000 litres. Hard coke of around 14-15 tons will be required per year for furnace . The cost of utilities is estimated at Rs. 2.30 lacs.

e) Prel. & Pre Operative Expenses

There will be many pre-production expenses like registration, administrative and travelling charges, interest during implementation, trial run expenses etc. for which a provision of Rs. 1.40 lacs is made.

f) Working Capital Assessment

(Rs. in lacs)

Particulars	**Period**	**Margin**	**Total**	**Bank**	**Promoters**
Stock of Raw Material & packing material	½ month	30%	1.82	1.27	0.55
Stock of Finished Goods	¼ month	25%	2.56	1.92	0.64
Receivable	½ month	25%	3.19	2.39	0.80
	Total		**7.57**	**5.58**	**1.99**

g) Project cost & Means of finance

(Rs. in lacs)

Item	**Amount**
Land and Building	5.75
Plant and Machinery	7.50
Miscellaneous Assets	1.30
P & P Expenses	1.40
Contingencies @ 10% on building and plant & machinery	1.20
Working capital margin	1.99

Total	19.14
Means of Finance	
Promoters' contribution	7.65
Term loan from Bank /FI	11.49
Total	19.14
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

As against the rated production capacity of 450 tons per year , actual utilization is envisaged to be 60% in the first year and 75% from second year onwards.

b) Sales Revenue at 100%

Product	**Qty (Tons)**	**Selling Price (Rs. / Ton)**	**Sales (Rs. in lacs)**
Rice flakes	360	35000	126.00
Rice Bran	45	4000	1.80
		Total	**127.80**

c) Raw Material Required at 100%

Details of raw material required are as under :

(Rs. in lacs)

Product	**Qty (Tonnes)**	**Rate (Rs./ Ton)**	**Value**
Paddy	450	15,000	67.50
Packing material	-	-	5.40
	Total		**72.90**

d) Projected Profitability

(Rs. in lacs)

S. No.	Particulars	1st year	2nd year
A.	**Installed capacity**	**450 Tonnes**	
	Capacity Utilisation	60%	75%
	Sales Realisation	76.68	95.85
B.	**Cost of Production**		
	Raw material & packing material	43.74	54.67
	Utilities	1.38	1.72
	Salaries	5.46	6.00
	Stores and Spares	1.20	1.50
	Repairs and Maintenance	0.90	1.12
	Selling Expenses @ 10%	7.68	9.58
	Administrative Expenses	1.20	1.50
	Total	61.56	76.09
C.	**Profit before Interest & Depreciation**	**15.12**	**19.76**
	Interest on Term Loan	1.14	0.90
	Interest on Working Capital	0.67	0.84
	Depreciation.	1.20	1.00

	Profit before tax	12.11	17.02
	Income-tax @ 20%	2.42	3.40
	Profit after tax	9.69	13.62
	Cash Accruals	10.89	14.62
	Repayment of Term Loan	Nil	2.50

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

S. No.	**Particulars**	**Amount**	
(A)	**Sales**		**95.85**
(B)	**Variable Costs**		
	Raw material & packing material	54.67	
	Utilities(70%)	1.03	
	Salaries (60%)	3.90	
	Stores and Spares	1.50	
	Selling Exps (70%)	6.27	
	Admn Expenses (50%)	0.75	
	Interest on WC	0.84	68.96
(C)	**Contribution (A) – (B)**		**26.89**
(D)	**Fixed Costs**		**8.87**
(E)	**Break Even Point**		**33%**

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

Particulars	1st year	2nd year	3rd year
Cash Accruals	10.89	14.62	17.54
Interest on TL	1.14	0.90	0.65
Total (A)	12.03	15.52	18.19
Interest on TL	1.14	0.90	0.65
Repayment of TL	Nil	2.50	2.50

Total	**1.14**	**3.40**	**3.15**
DSCR (A) / (B)	10.55	4.56	5.77
Average DSCR	6.96		

g) Internal Rate of Return (IRR)

Cost of the project is Rs. 19.14 lacs

(Rs. in lacs)

Year	**Cash Accruals**	**32%**	**50%**
1	10.89	8.25	7.18
2	14.62	8.39	6.43
3	17.54	7.62	5.08
4	17.54	5.77	3.33
Total		**30.03**	**21.04**

The IRR is around 50%

h) Manpower requirement

Particulars	**Nos.**	**Monthly**	**Total Monthly Salary (Rs.)**
Skilled workers	3	7,500	22,500
Semi Skilled Workers	3	5,000	15,000
Salesman	1	8,000	8,000
		Total	**45,500/-**

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. 15,000/- ton and Rs. 35,000 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