

Model Project on Shrimp Papad

Submitted to - Directorate of Food Processing,
Government of West Bengal



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Table of Contents

| | | |
|------|---|---|
| 1.0 | Introduction | 1 |
| 2.0 | Objectives | 1 |
| 3.0 | Raw Material Availability | 1 |
| 4.0 | Market Opportunities..... | 1 |
| 5.0 | Project Description | 2 |
| 5.1 | Product And Its Uses..... | 2 |
| 5.2 | Capacity | 2 |
| 5.3 | Manufacturing Process With Flow Chart | 2 |
| 6.0 | Project Components..... | 2 |
| 7.0 | Project Cost | 4 |
| 8.0 | Mean of Finance | 4 |
| 9.0 | Working Capital Assesment | 4 |
| 10.0 | Manpower Requirement | 5 |
| 11.0 | Project Profitability | 5 |
| 11.1 | Installed Capacity and Capacity Utilization | 5 |
| 11.2 | Yield and Production..... | 5 |
| 11.3 | Sales Revenue | 5 |
| 11.4 | Profit Calculations..... | 6 |
| 12.0 | Financial Parameters..... | 6 |
| 12.1 | Cash Flow Statement | 6 |
| 12.2 | Break Even Analysis | 7 |
| 12.3 | Debt Service Coverage Ratio (DSCR)..... | 7 |
| 12.4 | Internal Rate Of Return (IRR)..... | 7 |
| 12.5 | Projected Balance Sheet | 8 |
| 13. | Assumptions..... | 8 |
| 13.0 | Address of Supplier of Plant and Machinery..... | 9 |

PROJECT PROFILE ON SHRIMP PAPAD

1.0 INTRODUCTION

Shrimp has emerged as an important item in world's sea food production. India is one among the global leaders in shrimp production. The shrimp continued to be the major export value product. The value addition of shrimp can further boost the demand and export of shrimp. India ranks second in terms of area under shrimp culture and production. West Bengal ranks second and third respectively in terms of area under shrimp culture and production. The development and adoption of scientific method of shrimp culture and production has increased the quality and the capacity of the shrimp production in West Bengal.

2.0 OBJECTIVES

The commercial shrimp papad manufacturing unit will have the following objectives:

- Production of convenient healthy sea product.
- Export of packaged shrimp papad.
- To meet the demand of the internal and the international markets.

3.0 RAW MATERIAL AVAILABILITY

As per the Marine Products Export Development Authority (MPEDA), the export of Shrimp from India is around 8.62 Lakh MT in the year 2012-13 of worth Rs.16597.23 crore. The production of Shrimp in West Bengal in the year 2011-12 is estimated as 9.22 MT. Hence there is ample of raw material availability for manufacturing of shrimp papad in the state of West Bengal.

4.0 MARKET OPPORTUNITIES

Due to urbanization and improvement in the standards of living in towns/cities in India, there is a huge demand for shrimp papad. As papad is one of the traditional Indian food items, it has got demand in foreign countries where Indian immigrants have settled down. Keeping this in view, it is envisaged that there is good scope for the development of shrimp papad making industry. This also generates employment opportunities in cottage industries of rural areas.

5.0 PROJECT DESCRIPTION

5.1 Product and its uses

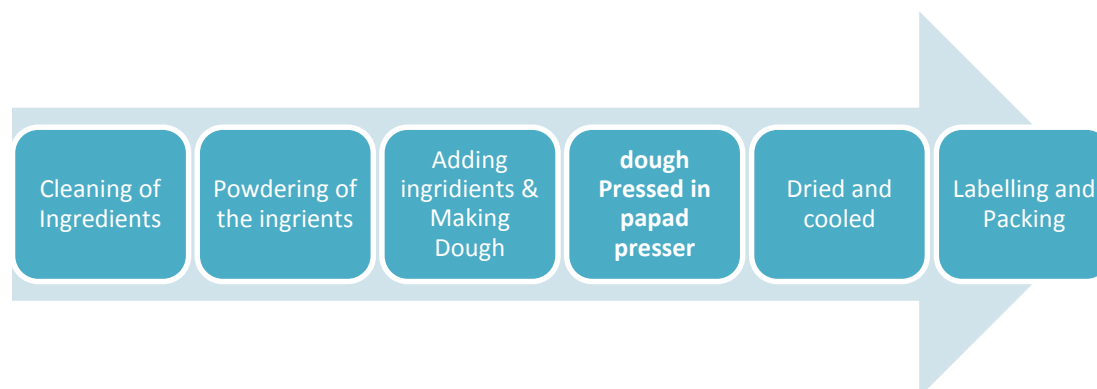
Shrimp is highly perishable in nature whereas dried shrimp can be preserved for a long duration without any loss in the quality. Shrimp papad would be instant product and could be deep fried in oil or in oven.

5.2 Capacity

Capacity of shrimp papad plant is considered as 180 MT per year

5.3 Manufacturing process with flow chart

The process of shrimp papad manufacturing is simple. The ingredients required are black gram dal powder, shrimp powder, spices, salt and sodium carbonate (optional). All ingredients are thoroughly mixed in a mixer to form a homogeneous dough. Small dough balls of 10gms are formed and pressed in a papad presser to form thin layer of papad. These are then dried and are packaged in polythene bags.



6.0 PROJECT COMPONENTS

6.1 Land: A plot of land of around 0.25 acre shall be required which would cost around Rs.1.3 Lakh. The cost of land development will be Rs1.25 Lakhs.

6.2 Civil Works

| Area allocation | Area in Sq. m |
|--------------------------------|---------------|
| Main building and storage Area | 250 sq. m |
| Other | 250 sq. m |

The construction cost is considered as Rs. 6000 per sq. meter for main building and Rs.1000/ sq. meter for other civil structures. Hence, the total construction cost for built up area is Rs. 17.50 Lakhs.

6.3 Plant and Machinery

| S. No. | Name of machinery | Quantity in Nos. | Cost per unit | Price in Rs. |
|--------|--|------------------|---------------|---------------|
| 1 | Grinder (50 kg) | 1 | 100000 | 100000 |
| 2 | Mixer (50 kg) | 1 | 65000 | 65000 |
| 3 | Pedal Operated Papad Press | 2 | 35000 | 70000 |
| 4 | Tray Dryer (48 Trays) | 1 | 25000 | 25000 |
| 6 | Weighing scale, Polythene Bag Sealing Machine, Packing Tables etc. | 1 | 55000 | 55000 |
| | Sub Total | | | 315000 |
| | Excise duty | 12.36% | | 39000 |
| | Total Invoice Value | | | 354000 |
| | Transportation Cost (Lump Sum) | | | 25000 |
| | VAT against C form | 2.0% | | 7000 |
| | Sub Total | | | 386000 |
| | Grand Total in INR Lakh | | | 3.86 |

6.4 Miscellaneous Fixed Assets

The cost of miscellaneous fixed assets like office furniture and other infrastructure, telephone installation, electrical infrastructure etc. is estimated as Rs. 0.7 Lakhs.

6.5 Preliminary Preoperative Expenses

Provision of Rs. 0.25 Lakh will be necessary to take care of the preoperative expenses like registration, travelling etc.

6.6 Contingency

Contingency charges are considered as 2 % of the cost of project excluding the pre-operative expenses and the land cost.

7.0 PROJECT COST

| S. No | Particulars | Qty. | Rate (Rs.) | Amount (INR. Lakh) |
|-------|---------------------------------------|------|------------|--------------------|
| 1 | Land in Acre | 0.25 | 500000 | 1.25 |
| 2 | Land Development Sq. Mt | 2000 | LS | 1.25 |
| 3 | Civil Work Sq. Mt. | 250 | 6000 | 15.00 |
| | Other Civil work Sq. Mt. | 250 | 1000 | 2.50 |
| 4 | Plant and Machinery | | | 3.86 |
| 5 | Miscellaneous Fixed Assets | | | 0.7 |
| 6 | Contingency | | | 0.47 |
| 7 | Working Capital Margin | | | 15.20 |
| 8 | Preliminary and Preoperative Expenses | | | 0.25 |
| | TOTAL | | | 40.53 |

8.0 MEAN OF FINANCE

| | | | |
|-----------|-----------|--------------|---------------|
| Equity | Share | 25% | 10.13 |
| Bank loan | Bank loan | 75% | 30.39 |
| | | Total | Equity |

9.0 WORKING CAPITAL ASSESMENT

Working capital required to run the plant is enlisted below:

| Working Capital Assessment | | | | |
|---|------|--------|--------|--------|
| Particulars | Days | Year 1 | Year 2 | Year 3 |
| Raw material | 10 | 3.56 | 4.00 | 4.00 |
| Work In Progress(WIP) | 5 | 1.90 | 2.14 | 2.14 |
| Finished Goods | 10 | 3.81 | 4.29 | 4.29 |
| Debtors | 15 | 5.93 | 6.64 | 6.64 |
| Total | | 15.20 | 17.07 | 17.07 |
| Creditors | | 0 | 0 | 0 |
| Total | | 0 | 0 | 0 |
| Working Capital Gap (WCG) | | 15.20 | 17.07 | 17.07 |
| Margin | 25% | 3.80 | 4.27 | 4.27 |
| Maximum Permissible Bank Finance (MPBF) | | 11.40 | 12.80 | 12.80 |
| Interest | 14% | 1.60 | 1.79 | 1.79 |

10.0 MANPOWER REQUIREMENT

Administrative and Supervisory

| Designation | Salary Per Month (In Rs.) | No: of Staff | Total in INR Lakh |
|---------------------------------|---------------------------|--------------|-------------------|
| Skilled workers | 5400 | 24 | 1.296 |
| Sales Man | 7500 | 12 | 0.9 |
| Semi-Skilled Worker | 4200 | 24 | 1.008 |
| Helper | 4200 | 48 | 2.016 |
| Total Salary in INR Lakh | | | 5.22 |

11.0 PROJECT PROFITABILITY

11.1 Installed Capacity and Capacity Utilization

The capacity of Shrimp papad manufacturing plant is estimated as 180 MT of Shrimp papad per year. During first year only 80% capacity will be utilized whereas 90% of the capacity will be utilized from second year onwards.

11.2 Yield and Production

At 90 % capacity utilization around 162 MT of Shrimp papad per year will be produced.

11.3 Sales Revenue

The sale revenue at 90% capacity utilization will be,

| Products | Price/MT (Rs) | Income (Rs in Lakhs) |
|--------------|---------------|----------------------|
| Shrimp Papad | 71500.00 | 115.83 |

11.4 Profit Calculations

| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--|---------------|---------------|---------------|---------------|---------------|
| Installed Capacity in MT | 180 | | | | |
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Capacity Utilisation in MT | 80% | 90% | 90% | 90% | 90% |
| Shrimp Papad | 144 | 162 | 162 | 162 | 162 |
| Total Utilised capacity in MT | 144 | 162 | 162 | 162 | 162 |
| Sales Value(In Rs. Lakhs) | | | | | |
| Shrimp Papad (In Rs. Lakhs) | 102.96 | 115.83 | 115.83 | 115.83 | 115.83 |
| Total income (In Rs. Lakhs) | 102.96 | 115.83 | 115.83 | 115.83 | 115.83 |
| Expenditure calculations | | | | | |
| Total expenditure (In Rs. Lakhs) | 89.63 | 100.42 | 100.44 | 100.49 | 100.54 |
| PBDIT | 13.33 | 15.41 | 15.39 | 15.34 | 15.29 |
| Depreciation | 2.39 | 2.13 | 1.89 | 1.68 | 1.50 |
| Interest on Term Loan | 3.64 | 3.64 | 3.12 | 2.60 | 2.08 |
| Interest On Working Capital | 1.60 | 1.79 | 1.79 | 1.79 | 1.79 |
| Intangible assets written off | 0.00 | 0.05 | 0.05 | 0.05 | 0.05 |
| Profit after depreciation and interest | 5.70 | 7.80 | 8.53 | 9.21 | 9.86 |
| Tax | 2.05 | 2.81 | 3.07 | 3.32 | 3.55 |
| Profit after depreciation interest and tax | 3.65 | 4.99 | 5.46 | 5.89 | 6.31 |
| Surplus Available For Repayment | 9.68 | 10.76 | 10.47 | 10.18 | 9.89 |
| Cash Accruals | 6.04 | 7.12 | 7.35 | 7.58 | 7.81 |
| Net Cash Accrual | 6.04 | 7.12 | 7.30 | 7.32 | 7.56 |

12.0 FINANCIAL PARAMETERS

12.1 Cash Flow Statement

The statement of cash flow shows flow of cash in and out of the business. Cash inflow means the source of cash which includes equity, loan from bank and the cash accruals from the business and cash outflow is a sum of cash required for the applications like increase in fixed assets, for repayment of term loan, preoperative expenses and cash required for the payment of dividend etc.

| Particulars | | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 |
|-----------------|-------|-------|------|-------|-------|-------|
| Cash inflow | 60.98 | 46.51 | 7.12 | 7.35 | 7.58 | 7.81 |
| Cash outflow | 40.22 | 40.47 | 4.34 | 4.34 | 4.54 | 4.54 |
| Opening Balance | 0 | 0.00 | 6.04 | 8.82 | 11.84 | 14.87 |
| Surplus | 20.76 | 6.04 | 2.78 | 3.01 | 3.04 | 3.27 |
| Closing Balance | 0.00 | 6.04 | 8.82 | 11.84 | 14.87 | 18.15 |

12.2 Break Even Analysis

| Particulars (Rs. In lakh) | | | | | |
|---------------------------|---------|----------|----------|----------|----------|
| | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 |
| Sales Revenue | 102.96 | 115.83 | 115.83 | 115.83 | 115.83 |
| Total Variable Cost | 85.71 | 96.42 | 96.42 | 96.42 | 96.42 |
| Total Fixed Cost | 7.56 | 7.61 | 7.08 | 6.55 | 6.03 |
| Contribution | 9582.96 | 10780.83 | 10780.83 | 10780.83 | 10780.83 |
| Break Even Point (%) | 43.83% | 39.23% | 36.50% | 33.78% | 31.06% |

12.3 Debt Service Coverage Ratio (DSCR)

| DSCR | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|--------------------|-------------|--------|--------|--------|--------|
| Coverage Available | 9.68 | 10.76 | 10.47 | 10.18 | 9.89 |
| Debt | 3.64 | 7.98 | 7.46 | 6.94 | 6.42 |
| Value | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| DSCR Ratio | 2.66 | 1.35 | 1.40 | 1.47 | 1.54 |
| Average DSCR Ratio | 1.50 | | | | |

The debt service coverage ratio based on the assumed techno economic parameters is found satisfactory. The average DSCR is 1.50.

12.4 Internal Rate of Return (IRR)

The financial indicators like Net Present worth (NPW), Benefit Cost Ratio (BCR), and Internal Rate of Return (IRR) etc. were analysed by discounting cash flow @15% discounting rate. The internal rate of return is found to be 52.25% and BCR is about 1.06.

12.5 Projected Balance Sheet

| Liabilities | | Yr 1 | Yr 2 | Yr 3 | Yr 4 | Yr 5 |
|------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Equity | 10.12 | 10.12 | 10.12 | 10.12 | 10.12 | 10.12 |
| Term Loan | 30.36 | 30.36 | 26.02 | 21.68 | 17.35 | 13.01 |
| Reserve & Surpluses | | 3.65 | 8.64 | 14.05 | 19.69 | 25.75 |
| Total | 40.47 | 44.12 | 44.78 | 45.85 | 47.16 | 48.88 |
| Gross Fixed Assets | | 40.22 | 40.22 | 40.22 | 40.22 | 40.22 |
| Less Depreciation | | 2.39 | 4.52 | 6.41 | 8.09 | 9.59 |
| Net Fixed Assets | | 37.83 | 35.71 | 33.81 | 32.13 | 30.63 |
| Intangible Assets | | 0.25 | 0.25 | 0.20 | 0.15 | 0.10 |
| Cash & Bank Balance | | 6.04 | 8.82 | 11.84 | 14.87 | 18.15 |
| Total | | 44.12 | 44.78 | 45.85 | 47.16 | 48.88 |
| TNW | 50.59 | 54.24 | 54.90 | 55.97 | 57.27 | 59.00 |
| TOL | 30.36 | 30.36 | 26.02 | 21.68 | 17.35 | 13.01 |
| TOL/TNW | 0.60 | 0.56 | 0.47 | 0.39 | 0.30 | 0.22 |

13. ASSUMPTIONS

- The unit will work for 8 hours a day for 225 days per annum.
- Capacity utilization: First year –80%, Second year onwards - 90%.
- The wages for unskilled workers are taken as per prevailing rates in this type of industry.
- Interest rate for term loan is 12% per annum and that is for working capital is 14% per annum.
- Margin money considered at 25% of the financial outlay.
- Insurance charges for the fixed assets considered as 0.5% of the depreciated cost of the assets.
- Repayment period of 8 years with one year grace period for repayment of principal.
- Costs of machinery and equipment are based on average prices of machinery manufacturers.
- Power cost is considered as Rs. 6.0 per unit and that for the fuel is Rs. 55 per litre.
- The cost of water is considered as 36 paise per litre.
- Depreciation rate of 10%, 13.91% and 15% has been considered for civil structures, plant & machineries and miscellaneous fixed assets respectively.

- l. Repair and maintenance is considered as a percentage of total project cost excluding preliminary preoperative expenses, land and land development cost. The percentages are 0.10, 0.25 and 0.5 for first three years respectively and 0.75 for fourth year onwards.
- m. The administrative expenses will be considered as Lump sum Rs. 10 thousand per annum.
- n. The 0.5% of total income would be considered to take care of promotion and marketing expenses.
- o. Insurance of the fixed assets is a function of their depreciated cost. It is considered as a 0.5% of depreciated cost (WDV method) of assets.
- p. Land cost is considered as Rs.5 Lakh per acre.

13.0 ADDRESS OF SUPPLIER OF PLANT AND MACHINERY

1. Zoy Impex

E - 1, Sector - 22, U. P. S. I. D. C.,
Industrial Area, Meerut Road,
Near Samtel Device Limited,
Ghaziabad - 201001, Uttar Pradesh, India

2. Hisense Infratech Private Limited

138 - A, Taimoor Nagar Maharani Bagh,
New Delhi - 110025, Delhi, India

3. Food Tech Equipment's Company

52- A, IInd Floor, Opposite PNB, Dilshad Garden Industrial Area,
Delhi - 110095, Delhi, India

4. Mark 1 Packaging Systems Pvt Ltd

No. 75, Hasti Industrial Estate, Shilphatta Road,
Mahape, Navi Mumbai - 400 707,
Maharashtra, India