## Of

## BAMBOO SHOOT PRODUCTS

## (PICKLE AND CANNED SHOOT)

## PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Bamboo shoot products.

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.]

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## BAMBOO SHOOT PICKLE AND CANNED BAMBOO SHOOT



## INTRODUCTION

One extensive use of bamboo is the usage of young shoots as food. Bamboo shoots are the young, edible bamboo plants that have just emerged from the ground. Bamboo shoots are low in fat and calories but rich in fibre with about $90 \%$ water. Fresh shoots have a crisp and sweet flavour with limited shelf life and have to be sold immediately. The peak availability period is June to October. The shoots are usually harvested when they attain the height of 1516 cm .

Bamboo shoot is consumed either raw or processed because of its exotic taste and flavour. Many nutritious and active materials-such as vitamins, amino acids and anti-oxidants such as flavones, phenols and steroids are present in the bamboo shoots. They are valuable in pharmaceutical and food processing industries and can be processed into beverages, medicines, additives or health foods.

Being a lesser-known food product, bamboo shoot processing has potential to be developed as an innovative and promising enterprise.

Considering the potential market opportunity of such units, the present detail project report has been developed. The main objective of such initiative is to productively utilize the abundantly available resources of the local area and to enable uninterrupted supply of the products to market throughout the year.

## PROJECT DESCRIPTION

The proposed project is that of setting up of a Bamboo Shoot Processing unit at suitable location.
The key products of the proposed project are as follows;

- Bamboo Shoot Pickle
- Canned Bamboo Shoot

Bamboo shoots are gaining popularity among the people all over the world.

Despite huge scope of value addition, the preparation of various bamboo shoot based products is traditional, local and unorganized. This calls for development of appropriate technologies and enterprises for preservation of bamboo shoots in different forms. It will not only address the economic and ecological aspects related to bamboo but also the food security and nutritional concerns of the region.
The proposed project would procure the raw materials locally. After processing, the products would be supplied to the market through distributors/ wholesalers/retailers.

## MARKET PROSPECT

Bamboo shoots either processed or raw, have a high demand in the markets. There is a ready market as there are very few processing units whereas demand is increasing. Apart from individual households, processed bamboo shoots have very good demand from restaurants, caterers, other caterers etc. Product can be sold through provisional stores and super markets in consumer packs and to bulk buyers in large packing.

The NE region being the largest producer of bamboos in India has a bright prospect for bamboo shoot industry but presently bamboo shoot production is predominantly for fulfilling the local needs only.

The local bamboo shoot industry if properly established will not only help in socioeconomic upliftment of the region but also generate huge income for the country. But effective marketing strategies should be formulated to extract maximum profits by making bamboo shoot products available to many potential customers within and outside the country.

The proposed business may utilise media such as broadcast, newspapers and also social network platforms at certain interval of time to introduce the products and also attract more customers. Placement of the product at strategic outlets and publicity in local media would boost sales. It may also carry door to door services in the initial years to introduce the product and attract more customers.

Marketing plan of the proposed project may include good quality maintenance, promotional campaign like offering special discounts, referrals, advertisement and tying up with buying houses.

## TECHNOLOGICAL PROCESS

The process flow diagram is as follows:


Bamboo Shoot Pickle: Bamboo shoots Pickle processing starts with thorough washing followed by peeling off the skin, shredding, slicing and cutting into small pieces. Next, they are boiled for about 10 min to remove bitterness and unwanted matter. This is followed by storing in brine solution with $5 \%$ salt and $1 \%$ citric acid. After that, necessary ingredients and oil are added and mixed thoroughly before packaging in suitable jars. The process flow diagram is as follows:

Canning of Bamboo Shoot: High moisture content of bamboo shoots makes them prone to growth of undesirable micro-organisms. Process of canning is effective in abating rancidity and preventing the growth of micro-organisms in bamboo shoots, thus preventing the products for a longer period of time. Fresh bamboo shoots are cut from head and tail. After chopping, slicing and grading, the bamboo shoots are boiled, drained and canned. Salt solution is added to the cans and is kept to evaporate. Cans are sealed and are processed through retort at a temperature of 100-21230-degree C. After cooling of cans, labelling and packing is done.

## QUALITY CONTROL AND STANDARDS

The Containers made of plastic materials should conform to the following Indian Standards Specification, used as appliances or receptacles for packing or storing whether partly or wholly, food articles namely;
(i) IS : 10146 (Specification for Polyethylene in contact with foodstuffs);
(ii) IS : 10142 (Specification for Styrene Polymers in contact with foodstuffs);
(iii) IS : 10151 (Specification for Polyvinyl Chloride (PVC), in contact with foodstuffs);
(iv) IS : 10910 (Specification for Polypropylene in contact with foodstuffs);
(v) IS : 11434 (Specification for Ionomer Resins in contact with foodstuffs);

General packaging requirements for canned products;
(i) All containers shall be securely packed and sealed.
(ii) The exterior of the cans shall be free from major dents, rust, perforations and seam distortions and
(iii) Cans shall be free from leaks.

FSSAI LICENSE: FSSAI License is issued by the Food Safety and Standards Authority of India (FSSAI), Ministry of Family Health \& Welfare, Government of India. Application to commence a food business must be made to the FSSAI in the prescribed format. Based on the application and supporting documents, FSSAI will accord approval. The Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations 2011 introduced to improve the hygiene and quality of food has brought about tremendous changes in the food industry. As per the Act, no person shall commence or
carry on any food business except under a FSSAI license or FSSAI registration. Therefore, any food manufacturing or processing or packaging or distributing entity is now required to obtain a FSSAI License or Registration.

POLLTUION CONTROL: There is no major pollution problem associated with this industry except for disposal of waste which should be managed appropriately. However, waste water resulting from washing of ginger \& lime treated ginger water may be safely dispersed over a large area of land for irrigation purpose. The promoter is advised to take "No Objection Certificate" from the State Pollution Control Board.

EFFLUENT DISPOSAL: Disposal of any effluent out of the project unit should be treated with recycling facility or dumped in such a way that these does not cause hazard in the vicinity of the site.

ENERGY CONSERVATION: Proper care should be taken in running the machineries and equipment to avoid over run and high electricity consumption. The machineries selected for the plant should be most energy efficient for economical production.

## CONSUMABLES, POWER AND UTILITY

The major consumables required are as follows;

1. Raw Bamboo Shoot
2. Ingredients like Salt, Mustard Seed, Mustard Oil, Spices, Vinegar and Preservatives.
3. Packaging Materials

POWER:
The total requirement of power for the project is 15 KW .
UTILITY:
WATER: Constant flow of water would be necessary in the operation of the plant. Water would be obtained from bore well and can be stored in an overhead tank, from where it will be supplied to the required areas. Process water should be free of mud and suspended particles. It should be available at a pressure of $3 \mathrm{Kg} / \mathrm{sq} . \mathrm{cm}$.

OTHER UTILITIES: Other utilities includes LPG cylinders and fuel those should be locally available

## INSTALLED CAPACITY

In assessing the proposed plant capacity, due consideration has been given to technological and financial factors, marketing considerations, availability of consumables, infrastructure facilities and economic viability. The detailed requirement of the plant and machineries to achieve the plant capacity is assessed by the unit technician. While arriving at the requirement of various type of equipment and machinery required for the unit, due considerations has been given to the following points.
a) Minimum Wastage
b) High Productivity
c) Maximum flexibility in operation
d) Adequate stock by provision wherever necessary

The installed production capacity of the unit per annum is as follows;

| Bamboo Shoot Pickle | - | 100 Ton |
| :--- | :--- | :--- |
| Canned Bamboo Shoot | - | 150 Ton |

For the purpose of carrying out this economic viability of the proposed project, it is assumed that the plant will operate at following efficiencies during the first 5(Five) years.@50\% In first year with increase of 10\% PA and so on.

## BASIS AND PRESUMPTIONS

- While deriving figures and projections in this Project report, following Basis and Presumptions have been made.
- The project is based on a single shift basis and 300 days of working schedule in a year, working for 8 hours a day, 25 days a month.
- The project cost and other projections etc. have been made on present market conditions and the sources available within our sources only and therefore it may vary on account of market fluctuations and with different suppliers and qualities.
- The cost of machinery and equipment/materials indicated refer to a particular make and the prices are approximate to these prevailing at the time of preparation of this report.
- Power rate is assumed at Rs.8.00 per unit and monthly fixed rental charges.
- Water would be made available through bore well facility at the project site.
- Manpower requirement for the project has been planned considering the size of the unit.
- Interest rates considered is $11.50 \%$ on term loan and Working capital loan for financial assistance.
- For repayment, a period of 5 years is planned with moratorium period of one year.
- Insurance charges have been considered Lump Sum.
- Repair and maintenance have been calculated at reasonably.
- Depreciation shown has been calculated on Straight Line Method.
- At the plant site, availability of unskilled labour is not a problem. Skilled and unskilled labour can be recruited for operating the plant. Initial training will be required for smooth and efficient running of the plant. It is felt that the skilled manpower available locally having some experience in operation can be recruited to satisfy the manpower need.
- Project would be set up at a site that is well connected by road and there is adequate supply of power and water.
$\square$


## PROJECT AT A GLANCE

1 Name of the Entreprenuer
2 Constitution (legal Status)
3 Father's/Spouce's Name
4 Unit Address

5 Product and By Product

6 Name of the project / business activity proposed:
7 Cost of Project
8 Means of Finance Term Loan KVIC Margin Money Own Capital
Working Capital
9 Debt Service Coverage Ratio
10 Pay Back Period
11 Project Implementation Period
12 Break Even Point

13 Employment
14 Power Requirement
15
Major Raw materials
Estimated Annual Sales Turnover
6 Detailed Cost of Project \& Means of Finance COST OF PROJECT

|  | (Rs. In Lacs) |
| :--- | ---: |
| Particulars | Amount |
| Land | Leased/Owned |
| Building \& Civil Work (2000Sq Ft) | 5.00 |
| Plant \& Machinery | 7.55 |
| Furniture \& Fixtures | 0.73 |
| Pre-operative Expenses | 0.75 |
| Working Capital Requirement | 5.97 |
| Total | $\mathbf{2 0 . 0 0}$ |

MEANS OF FINANCE

| Particulars | Amount |
| :--- | ---: |
| Own Contribution @10\% | 2.00 |
| Term Loan | 12.63 |
| Working Capital Finance | 5.37 |
| Total | $\mathbf{2 0 . 0 0}$ |


|  | General | Special |
| :--- | :--- | :--- |
| Beneficiary's Margin Monery | $10 \%$ | $5 \%$ |
| (\% of Project Cost) |  |  |

PLANT \& MACHINERY

|  | PARTICULARS | QTY. | RATE | AMOUNT IN RS. |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Washing Tanks of 1000 Litre Capacity | 2 |  |  |
| 2 | Slicing Machine | 1 |  |  |
| 3 | Boiler with accessories | 1 |  |  |
| 5 | Mixer/Grinder | 2 |  |  |
| 6 | Bottle Washing and Filling Machine | 1 |  |  |
| 7 | Cap Sealing Machine | 1 |  |  |
| 8 | Automatic Form Fill and Sealing Machine | 1 |  |  |
| 9 | Burner Stove | 1 |  | 650,000.00 |
| 10 | SS Utensils, Weighing Scales, Hand Gloves, MiscellaneousTools and Equipment | LS |  | 80,000.00 |
| 11 | Testing Equipment | LS |  | 25,000.00 |
|  | Total |  |  | 755,000.00 |



PARTICULARS $\quad$ IST YEAR IIND YEAR IIIRD YEAR IVTH YEAR VTH YEAR


PARTICULARS
IST YEAR IIND YEAR IIIRD YEAR IVTH YEAR VTH YEAR

SOURCES OF FUND

| Share Capital | 2.00 | - |  |  |  |
| :--- | ---: | :---: | :---: | :---: | :---: |
| Reserve \& Surplus | 8.37 | 11.17 | 14.84 | 18.39 | 21.80 |
| Depriciation \& Exp. W/off | 1.67 | 1.48 | 1.29 | 1.12 | 0.97 |
| Increase in Cash Credit | 5.37 | - | - | - | - |
| Increase In Term Loan | 12.63 | - | - | - | - |
| Increase in Creditors | 3.43 | 0.69 | 0.69 | 0.69 | 0.69 |
| Increase in Provisions | 0.36 | 0.04 | 0.04 | 0.04 | 0.05 |
| $\quad$ |  |  |  |  |  |
| TOTAL: | $\mathbf{3 3 . 8 2}$ | $\mathbf{1 3 . 3 7}$ | $\mathbf{1 6 . 8 5}$ | $\mathbf{2 0 . 2 3}$ | $\mathbf{2 3 . 5 0}$ |
|  |  |  |  |  |  |

APPLICATION OF FUND

| Increase in Fixed Assets | 13.28 | - | - | - | - |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Increase in Stock | 7.27 | 1.45 | 1.45 | 1.45 | 1.45 |
| Increase in Debtors | 2.13 | 0.54 | 0.45 | 0.45 | 0.45 |
| Increase in Deposits \& Adv | 2.50 | 0.25 | 0.28 | 0.30 | 0.33 |
| Repayment of Term Loan | - | 3.16 | 3.16 | 3.16 | 2.68 |
| Taxation | 0.84 | 1.12 | 1.48 | 1.84 | 2.18 |
| TOTAL: | 26.01 | 6.51 | 6.82 | 7.20 | 7.09 |
| Opening Cash \& Bank Balance | - | 7.81 | 14.67 | 24.70 | 37.74 |
| Add : Surplus | 7.81 | 6.85 | 10.03 | 13.03 | 16.41 |
| Closing Cash \& Bank Balance | 7.81 | 14.67 | 24.70 | 37.74 | 54.14 |




BREAK UP OF LABOUR

| Particulars |  | Wages | No of | Total |
| :--- | :--- | ---: | ---: | ---: |
|  |  | Per Month | Employees | Salary |
|  |  |  |  |  |
| Skilled Worker |  | $9,000.00$ | 2 | $18,000.00$ |
| Unskilled Worker |  | $6,000.00$ | 4 | $24,000.00$ |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  | $42,000.00$ |
| Add: 10\% Fringe Benefit |  |  |  | $4,200.00$ |
| Total Labour Cost Per Month |  |  |  | $46,200.00$ |
| Total Labour Cost for the year (In Rs. Lakhs) |  | 5.00 | 5.54 |  |

BREAK UP OF SALARY

| Particulars |  | Salary | No of | Total |  |
| :--- | :--- | ---: | ---: | ---: | :---: |
|  |  | Per Month | Employees | Salary |  |
|  |  |  |  |  |  |
| Accountant |  | $8,000.00$ | 1 | $8,000.00$ |  |
| Sales |  | $10,000.00$ | 2 | $20,000.00$ |  |
| Total Salary Per Month |  |  |  | $28,000.00$ |  |
|  |  |  |  | $2,800.00$ |  |
| Add: 10\% Fringe Benefit |  |  |  | $30,800.00$ |  |
| Total Salary for the month |  |  | 3.70 |  |  |
|  |  |  |  |  |  |
| Total Salary for the year ( In Rs. Lakhs) |  |  | 2.00 |  |  |

## COMPUTATION OF DEPRECIATION

| Description | Land | Building/shed | Plant \& | Furniture | TOTAL |
| :--- | :---: | ---: | ---: | ---: | ---: |
|  |  |  | Machinery |  |  |
|  |  |  |  |  |  |
| Rate of Depreciation |  | $\mathbf{1 0 . 0 0} \%$ | $\mathbf{1 5 . 0 0} \%$ | $\mathbf{1 0 . 0 0} \%$ |  |
| Opening Balance | Leased | - | - | - | - |
| Addition | - | 5.00 | 7.55 | 0.73 | 13.28 |
|  | - | 5.00 | 7.55 | 0.73 | 13.28 |
| Less : Depreciation | - | 0.50 | 1.13 | 0.04 | 1.67 |
| WDV at end of Ist year | - | 4.50 | 6.42 | 0.69 | 11.61 |
| Additions During The Year | - | - | - | - | - |
|  | - | 4.50 | 6.42 | 0.69 | 11.61 |
| Less : Depreciation | - | 0.45 | 0.96 | 0.07 | 1.48 |
| WDV at end of IInd Year | - | 4.05 | 5.45 | 0.62 | 10.13 |
| Additions During The Year | - | - | - | - | - |
|  | - | 4.05 | 5.45 | 0.62 | 10.13 |
| Less : Depreciation | - | 0.41 | 0.82 | 0.06 | 1.29 |
| WDV at end of IIIrd year | - | 3.65 | 4.64 | 0.56 | 8.84 |
| Additions During The Year | - | - | - | - | - |
|  | - | 3.65 | 4.64 | 0.56 | 8.84 |
| Less : Depreciation | - | 0.36 | 0.70 | 0.06 | 1.12 |
| WDV at end of IV year | - | 3.28 | 3.94 | 0.51 | 7.73 |
| Additions During The Year | - | - | - | - | - |
|  | - | 3.28 | 3.94 | 0.51 | 7.73 |
| Less : Depreciation | - | 0.33 | 0.59 | 0.05 | 0.97 |
| WDV at end of Vth year |  | - | 2.95 | 3.35 | 0.46 |


| REPAYMENT SCHEDULE OF TERM LOAN |  |  |  |  | 11.5\% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Particulars | Amount | Addition | Total | Interest | Repayment | Cl Balance |
| IST YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | - | 12.63 | 12.63 | - | - | 12.63 |
|  | Iind Quarter | 12.63 | - | 12.63 | 0.36 | - | 12.63 |
|  | IIIrd Quarter | 12.63 | - | 12.63 | 0.36 | - | 12.63 |
|  | Ivth Quarter | 12.63 | - | 12.63 | 0.36 | - | 12.63 |
|  |  |  |  |  | 1.09 | - |  |
| IIND YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 12.63 | - | 12.63 | 0.36 | 0.79 | 11.84 |
|  | Iind Quarter | 11.84 | - | 11.84 | 0.34 | 0.79 | 11.05 |
|  | IIIrd Quarter | 11.05 | - | 11.05 | 0.32 | 0.79 | 10.26 |
|  | Ivth Quarter | 10.26 |  | 10.26 | 0.29 | 0.79 | 9.47 |
|  |  |  |  |  | 1.32 | 3.16 |  |
| IIIRD YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 9.47 | - | 9.47 | 0.27 | 0.79 | 8.68 |
|  | Iind Quarter | 8.68 | - | 8.68 | 0.25 | 0.79 | 7.89 |
|  | IIIrd Quarter | 7.89 | - | 7.89 | 0.23 | 0.79 | 7.10 |
|  | Ivth Quarter | 7.10 |  | 7.10 | 0.20 | 0.79 | 6.31 |
|  |  |  |  |  | 0.95 | 3.16 |  |
| IVTH YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 6.31 | - | 6.31 | 0.18 | 0.79 | 5.52 |
|  | Iind Quarter | 5.52 | - | 5.52 | 0.16 | 0.79 | 4.74 |
|  | IIIrd Quarter | 4.74 | - | 4.74 | 0.14 | 0.79 | 3.95 |
|  | Ivth Quarter | 3.95 |  | 3.95 | 0.11 | 0.79 | 3.16 |
|  |  |  |  |  | 0.59 | 3.16 |  |
| VTH YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 3.16 | - | 3.16 | 0.09 | 0.79 | 2.37 |
|  | Iind Quarter | 2.37 | - | 2.37 | 0.07 | 0.79 | 1.58 |
|  | IIIrd Quarter | 1.58 | - | 1.58 | 0.05 | 0.55 | 1.03 |
|  | Ivth Quarter | 1.03 |  | 1.03 | 0.03 | 0.55 | 0.48 |
|  |  |  |  |  | 0.23 | 2.68 |  |

CALCULATION OF D.S.C.R

| PARTICULARS | IST YEAR | IIND YEAR | IIIRD YEAR | IVTH YEAR | VTH YEAR |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| CASH ACCRUALS | 9.20 | 11.53 | 14.64 | 17.67 | 20.59 |
|  |  |  |  |  |  |
| Interest on Term Loan | 1.09 | 1.32 | 0.95 | 0.59 | 0.23 |
|  |  |  |  |  |  |
| Total | 10.29 | 12.85 | 15.60 | 18.26 | 20.82 |
|  |  |  |  |  |  |
| REPAYMENT |  |  |  |  |  |
| Instalment of Term Loan | 3.16 | 3.16 | 3.16 | 2.68 | 2.68 |
| Interest on Term Loan | 1.09 | 1.32 | 0.95 | 0.59 | 0.23 |
|  |  |  |  |  |  |
| Total | 4.25 | 4.47 | 4.11 | 3.27 | 2.91 |
|  |  |  |  |  |  |
| DEBT SERVICE COVERAGE RATI | 2.42 | 2.87 | 3.79 | 5.59 | 7.15 |
|  |  |  |  |  |  |
| AVERAGE D.S.C.R. |  |  | 4.37 |  |  |

COMPUTATION OF SALE

| Particulars |  | IST YEAR | IIND YEAR | IIIRD YEAR | IVTH YEAR | VTH YEAR |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| Op Stock |  | - | 6.00 | 7.20 | 8.40 | 9.60 |
| Production |  | 120.00 | 144.00 | 168.00 | 192.00 | 216.00 |
|  |  | 120.00 | 150.00 | 175.20 | 200.40 | 225.60 |
| Less : Closing Stock |  | 6.00 | 7.20 | 8.40 | 9.60 | 10.80 |
| Net Sale |  | 114.00 | 142.80 | 166.80 | 190.80 | 214.80 |
| Average Sale Price per MT(bamboo pickle and canned) | $80,000.00$ | $80,000.00$ | $80,000.00$ | $80,000.00$ | $80,000.00$ |  |
| Sale (in Lacs) | $\mathbf{9 1 . 2 0}$ | $\mathbf{1 1 4 . 2 4}$ | $\mathbf{1 3 3 . 4 4}$ | $\mathbf{1 5 2 . 6 4}$ | $\mathbf{1 7 1 . 8 4}$ |  |
|  |  |  |  |  |  |  |



## BREAK EVEN POINT ANALYSIS

| Year | I | II | III | IV | V |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Net Sales \& Other Income | 91.20 | 114.24 | 133.44 | 152.64 | 171.84 |
| Less : Op. WIP Goods | - | 3.84 | 4.61 | 5.38 | 6.14 |
| Add : Cl. WIP Goods | 3.84 | 4.61 | 5.38 | 6.14 | 6.91 |
| Total Sales | 95.04 | 115.01 | 134.21 | 153.41 | 172.61 |
| Variable \& Semi Variable Exp. |  |  |  |  |  |
| Raw Material \& Tax | 68.50 | 82.20 | 95.90 | 109.60 | 123.30 |
| Electricity Exp/Coal Consumption at 85\% | 0.91 | 1.10 | 1.28 | 1.46 | 1.64 |
| Manufacturing Expenses 80\% | 2.19 | 3.66 | 4.27 | 4.88 | 5.50 |
| Wages \& Salary at 60\% | 5.54 | 6.10 | 6.71 | 7.38 | 8.12 |
| Selling \& adminstrative Expenses 80\% | 1.46 | 1.83 | 2.14 | 2.44 | 2.75 |
| Intt. On Working Capital Loan | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 |
| Total Variable \& Semi Variable Exp | 79.14 | 95.41 | 110.83 | 126.30 | 141.85 |
| Contribution | 15.90 | 19.59 | 23.38 | 27.10 | 30.76 |
| Fixed \& Semi Fixed Expenses |  |  |  |  |  |
| Manufacturing Expenses 20\% | 0.55 | 0.91 | 1.07 | 1.22 | 1.37 |
| Electricity Exp/Coal Consumption at 15\% | 0.16 | 0.19 | 0.23 | 0.26 | 0.29 |
| Wages \& Salary at 40\% | 3.70 | 4.07 | 4.47 | 4.92 | 5.41 |
| Interest on Term Loan | 1.09 | 1.32 | 0.95 | 0.59 | 0.23 |
| Depreciation | 1.67 | 1.48 | 1.29 | 1.12 | 0.97 |
| Selling \& adminstrative Expenses 20\% | 0.36 | 0.46 | 0.53 | 0.61 | 0.69 |
| Total Fixed Expenses | 7.53 | 8.43 | 8.54 | 8.71 | 8.97 |
| Capacity Utilization | 50\% | 60\% | 70\% | 80\% | 90\% |
| OPERATING PROFIT | 8.37 | 11.17 | 14.84 | 18.39 | 21.80 |
| BREAK EVEN POINT | 24\% | 26\% | 26\% | 26\% | 26\% |
| BREAK EVEN SALES | 45.00 | 49.47 | 49.01 | 49.33 | 50.31 |

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| SOURCES OF FUND |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Share Capital | 2.50 | - |  |  |  |
| Reserve \& Surplus | 5.92 | 8.48 | 11.63 | 14.62 | 17.43 |
| Depriciation \& Exp. W/off | 2.58 | 2.21 | 1.89 | 1.62 | 1.38 |
| Increase in Cash Credit | 5.95 | - | - | - | - |
| Increase In Term Loan | 16.56 | - | - | - | - |
| Increase in Creditors | 0.37 | 0.06 | 0.06 | 0.06 | 0.06 |
| Increase in Provisions | 0.36 | 0.04 | 0.04 | 0.04 | 0.05 |
| TOTAL : | 34.24 | 10.79 | 13.62 | 16.34 | 18.92 |
| APPLICATION OF FUND |  |  |  |  |  |
| Increase in Fixed Assets | 18.00 | - | - | - | - |
| Increase in Stock | 5.04 | 0.84 | 0.84 | 0.84 | 0.84 |
| Increase in Debtors | 1.94 | 0.54 | 0.36 | 0.36 | 0.36 |
| Increase in Deposits \& Adv | 2.50 | 0.25 | 0.28 | 0.30 | 0.33 |
| Repayment of Term Loan | - | 4.14 | 4.14 | 4.14 | 3.17 |
| Taxation | 0.59 | 0.85 | 2.33 | 2.92 | 3.49 |
| TOTAL : | 28.08 | 6.62 | 7.94 | 8.57 | 8.19 |
| Opening Cash \& Bank Balance | - | 6.16 | 10.33 | 16.01 | 23.78 |
| Add : Surplus | 6.16 | 4.17 | 5.68 | 7.77 | 10.73 |
| Closing Cash \& Bank Balance | 6.16 | 10.33 | 16.01 | 23.78 | 34.51 |


| PROJECTED BALANCE SHEET |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PARTICULARS | IST YEAR | IIND YEAR | IIIRD YEAR | IVTH YEAR | VTH Year |
| SOURCES OF FUND |  |  |  |  |  |
| Capital Account | 2.50 | 2.50 | 2.50 | 2.50 | 2.50 |
| Retained Profit | 5.33 | 12.96 | 22.26 | 33.95 | 47.89 |
| Term Loan | 16.56 | 12.42 | 8.28 | 4.14 | 0.97 |
| Cash Credit | 5.95 | 5.95 | 5.95 | 5.95 | 5.95 |
| Sundry Creditors | 0.37 | 0.43 | 0.49 | 0.55 | 0.62 |
| Provisions \& Other Liab | 0.36 | 0.40 | 0.44 | 0.48 | 0.53 |
| TOTAL: | 31.07 | 34.66 | 39.92 | 47.58 | 58.46 |
| APPLICATION OF FUND |  |  |  |  |  |
| Fixed Assets (Gross) | 18.00 | 18.00 | 18.00 | 18.00 | 18.00 |
| Gross Dep. | 2.58 | 4.79 | 6.68 | 8.29 | 9.67 |
| Net Fixed Assets | 15.43 | 13.21 | 11.32 | 9.71 | 8.33 |
| Current Assets |  |  |  |  |  |
| Sundry Debtors | 1.94 | 2.48 | 2.84 | 3.20 | 3.56 |
| Stock in Hand | 5.04 | 5.88 | 6.72 | 7.56 | 8.40 |
| Cash and Bank | 6.16 | 10.33 | 16.01 | 23.78 | 34.51 |
| Deposits \& Advances | 2.50 | 2.75 | 3.03 | 3.33 | 3.66 |
| TOTAL: | 31.07 | 34.66 | 39.92 | 47.58 | 58.46 |
|  | - | - | - | - | - |




|  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| COMPUTATION OF CLOSING STOCK \& WORKING CAPITAL |  |  |  |  |  |  |
| PARTICULARS | IST YEAR | IIND YEAR | IIIRD YEAR | IVTH YEAR | VTH YEAR |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Finished Goods |  |  |  |  |  |  |
| (30Days requirement) | 3.46 | 4.03 | 4.61 | 5.18 | 5.76 |  |
| Raw Material |  |  |  |  |  |  |
| (30 Days requirement) | 1.58 | 1.85 | 2.11 | 2.38 | 2.64 |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Closing Stock | 5.04 | 5.88 | 6.72 |  | 7.56 |  |

COMPUTATION OF WORKING CAPITAL REQUIREMENT

| Particulars |  |  | Total |
| :--- | :--- | :--- | ---: |
|  |  |  | Amount |
| Stock in Hand |  |  | 5.04 |
|  |  |  |  |
| Sundry Debtors |  |  | 1.94 |
|  |  | Total | 6.98 |
| Sundry Creditors |  |  | 0.37 |
|  |  |  |  |
| Working Capital Requirement |  |  | $\mathbf{6 . 6 1}$ |
|  |  |  | 0.66 |
| Margin |  |  |  |
|  |  |  | $\mathbf{5 . 9 5}$ |
| Working Capital Finance |  |  |  |



## BREAK UP OF SALARY

| Particulars |  | Salary | No of | Total |
| :--- | :--- | ---: | ---: | ---: |
|  |  | Per Month | Employees | Salary |
|  |  |  |  | - |
| Accountant |  | $9,000.00$ | 1 | $9,000.00$ |
| Sales |  | $10,000.00$ | 2 | $20,000.00$ |
| Total Salary Per Month |  |  |  | $29,000.00$ |
|  |  |  |  | $2,900.00$ |
| Add: 10\% Fringe Benefit |  |  |  | $31,900.00$ |
| Total Salary for the month |  |  |  |  |
| 3 |  |  |  |  |
| Total Salary for the year ( In Rs. Lakhs) |  |  | 3.83 |  |

## COMPUTATION OF DEPRECIATION

| Description | Land | Building/shed | Plant \& Machinery | Furniture | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Rate of Depreciation |  | 10.00\% | 15.00\% | 10.00\% |  |
| Opening Balance | Leased | - | - | - | - |
| Addition | - | 2.00 | 15.75 | 0.25 | 18.00 |
|  | - | 2.00 | 15.75 | 0.25 | 18.00 |
| Less: Depreciation | - | 0.20 | 2.36 | 0.01 | 2.58 |
| WDV at end of Ist year | - | 1.80 | 13.39 | 0.24 | 15.43 |
| Additions During The Year | - | - | - | - | - |
|  | - | 1.80 | 13.39 | 0.24 | 15.43 |
| Less: Depreciation | - | 0.18 | 2.01 | 0.02 | 2.21 |
| WDV at end of IInd Year | - | 1.62 | 11.38 | 0.21 | 13.21 |
| Additions During The Year | - | - | - | - | - |
|  | - | 1.62 | 11.38 | 0.21 | 13.21 |
| Less: Depreciation | - | 0.16 | 1.71 | 0.02 | 1.89 |
| WDV at end of IIIrd year | - | 1.46 | 9.67 | 0.19 | 11.32 |
| Additions During The Year | - | - | - | - | - |
|  | - | 1.46 | 9.67 | 0.19 | 11.32 |
| Less: Depreciation | - | 0.15 | 1.45 | 0.02 | 1.62 |
| WDV at end of IV year | - | 1.31 | 8.22 | 0.17 | 9.71 |
| Additions During The Year | - | - | - | - | - |
|  | - | 1.31 | 8.22 | 0.17 | 9.71 |
| Less: Depreciation | - | 0.13 | 1.23 | 0.02 | 1.38 |
| WDV at end of Vth year | - | 1.18 | 6.99 | 0.16 | 8.33 |


| REPAYMENT SCHEDULE OF TERM LOAN |  |  |  |  | 11.5\% |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Particulars | Amount | Addition | Total | Interest | Repayment | Cl Balance |
| IST YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | - | 16.56 | 16.56 | - | - | 16.56 |
|  | Ind Quarter | 16.56 | - | 16.56 | 0.48 | - | 16.56 |
|  | IIIrd Quarter | 16.56 | - | 16.56 | 0.48 | - | 16.56 |
|  | Ivth Quarter | 16.56 | - | 16.56 | 0.48 | - | 16.56 |
|  |  |  |  |  | 1.43 | - |  |
| IIND YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 16.56 | - | 16.56 | 0.48 | 1.04 | 15.53 |
|  | Ind Quarter | 15.53 | - | 15.53 | 0.45 | 1.04 | 14.49 |
|  | IIIrd Quarter | 14.49 | - | 14.49 | 0.42 | 1.04 | 13.46 |
|  | Ivth Quarter | 13.46 |  | 13.46 | 0.39 | 1.04 | 12.42 |
|  |  |  |  |  | 1.73 | 4.14 |  |
| IIIRD YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 12.42 | - | 12.42 | 0.36 | 1.04 | 11.39 |
|  | Iind Quarter | 11.39 | - | 11.39 | 0.33 | 1.04 | 10.35 |
|  | IIIrd Quarter | 10.35 | - | 10.35 | 0.30 | 1.04 | 9.32 |
|  | Ivth Quarter | 9.32 |  | 9.32 | 0.27 | 1.04 | 8.28 |
|  |  |  |  |  | 1.25 | 4.14 |  |
| IVTH YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 8.28 | - | 8.28 | 0.24 | 1.04 | 7.25 |
|  | Iind Quarter | 7.25 | - | 7.25 | 0.21 | 1.04 | 6.21 |
|  | IIIrd Quarter | 6.21 | - | 6.21 | 0.18 | 1.04 | 5.18 |
|  | Ivth Quarter | 5.18 |  | 5.18 | 0.15 | 1.04 | 4.14 |
|  |  |  |  |  | 0.77 | 4.14 |  |
| VTH YEAR | Opening Balance |  |  |  |  |  |  |
|  | Ist Quarter | 4.14 | - | 4.14 | 0.12 | 1.04 | 3.11 |
|  | Iind Quarter | 3.11 | - | 3.11 | 0.09 | 1.04 | 2.07 |
|  | IIIrd Quarter | 2.07 | - | 2.07 | 0.06 | 0.55 | 1.52 |
|  | Ivth Quarter | 1.52 |  | 1.52 | 0.04 | 0.55 | 0.97 |
|  |  |  |  |  | 0.31 | 3.17 |  |

CALCULATION OF D.S.C.R

| PARTICULARS | IST YEAR | IIND YEAR | IIIRD YEAR | IVTH YEAR | VTH YEAR |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| CASH ACCRUALS | 7.90 | 9.84 | 11.19 | 13.31 | 15.32 |
|  |  |  |  |  | 0.77 |
| Interest on Term Loan | 1.43 | 1.73 | 1.25 | 0.31 |  |
|  |  |  |  |  | 14.08 |
| Total | 9.33 | 11.57 | 12.44 | 15.64 |  |
|  |  |  |  |  |  |
| REPAYMENT | 4.14 | 4.14 | 4.14 | 3.17 | 3.17 |
| Instalment of Term Loan | 1.43 | 1.73 | 1.25 | 0.77 | 0.31 |
| Interest on Term Loan |  |  |  |  |  |
|  | 5.57 | 5.87 | 5.39 | 3.94 | 3.48 |
| Total |  |  |  |  |  |
|  | $\mathbf{1 . 6 8}$ | $\mathbf{1 . 9 7}$ | $\mathbf{2 . 3 1}$ |  | $\mathbf{3 . 5 7}$ |
| DEBT SERVICE COVERAGE RAT] |  |  |  |  | $\mathbf{4 . 4 9}$ |
|  |  |  | $\mathbf{2 . 8 0}$ |  |  |
| AVERAGE D.S.C.R. |  |  |  |  |  |



COMPUTATION OF ELECTRICITY


## BREAK EVEN POINT ANALYSIS

| Year | I | II | III | IV | V |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Net Sales \& Other Income | 38.88 | 49.68 | 56.88 | 64.08 | 71.28 |
| Less : Op. WIP Goods | - | 3.46 | 4.03 | 4.61 | 5.18 |
| Add : Cl. WIP Goods | 3.46 | 4.03 | 4.61 | 5.18 | 5.76 |
| Total Sales | 42.34 | 50.26 | 57.46 | 64.66 | 71.86 |
| Variable \& Semi Variable Exp. |  |  |  |  |  |
| Raw Material \& Tax | 15.84 | 18.48 | 21.12 | 23.76 | 26.40 |
| Electricity Exp/Coal Consumption at 85\% | 2.63 | 3.07 | 3.51 | 3.94 | 4.38 |
| Manufacturing Expenses 80\% | 1.56 | 2.38 | 2.73 | 3.08 | 3.42 |
| Wages \& Salary at 60\% | 6.10 | 6.71 | 7.38 | 8.12 | 8.93 |
| Selling \& adminstrative Expenses 80\% | 0.62 | 0.79 | 0.91 | 1.03 | 1.14 |
| Intt. On Working Capital Loan | 0.60 | 0.60 | 0.60 | 0.60 | 0.60 |
| Total Variable \& Semi Variable Exp | 27.34 | 32.03 | 36.24 | 40.52 | 44.87 |
| Contribution | 15.00 | 18.22 | 21.22 | 24.14 | 26.99 |
| Fixed \& Semi Fixed Expenses |  |  |  |  |  |
| Manufacturing Expenses 20\% | 0.39 | 0.60 | 0.68 | 0.77 | 0.86 |
| Electricity Exp/Coal Consumption at 15\% | 0.46 | 0.54 | 0.62 | 0.70 | 0.77 |
| Wages \& Salary at 40\% | 4.07 | 4.47 | 4.92 | 5.41 | 5.95 |
| Interest on Term Loan | 1.43 | 1.73 | 1.25 | 0.77 | 0.31 |
| Depreciation | 2.58 | 2.21 | 1.89 | 1.62 | 1.38 |
| Selling \& adminstrative Expenses 20\% | 0.16 | 0.20 | 0.23 | 0.26 | 0.29 |
| Total Fixed Expenses | 9.08 | 9.75 | 9.59 | 9.52 | 9.56 |
| Capacity Utilization | 60\% | 70\% | 80\% | 90\% | 100\% |
| OPERATING PROFIT | 5.92 | 8.48 | 11.63 | 14.62 | 17.43 |
| BREAK EVEN POINT | 36\% | 37\% | 36\% | 36\% | 35\% |
| BREAK EVEN SALES | 25.63 | 26.88 | 25.97 | 25.51 | 25.45 |

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