

PROJECT REPORT

Of

PLASTIC EGG TRAY

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Plastic Egg Tray Manufacturing 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.]



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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **PLASTIC EGG TRAY**
- 6 Name of the project / business activity proposed : **PLASTIC EGG TRAY MANUFACTURING UNIT**
- 7 Cost of Project : Rs.17.41 Lakhs
- 8 Means of Finance
- Term Loan Rs.10.8 Lakhs
- Own Capital Rs.1.74 Lakhs
- Working Capital Rs.4.87 Lakhs
- 9 Debt Service Coverage Ratio : 2.73
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 48%
- 13 Employment : 11 Persons
- 14 Power Requirement : 20.00 HP
- 15 Major Raw materials : PVC, Pigments and Fillers
- 16 Estimated Annual Sales Turnover (Max Capacity) : 100.49 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

| Particulars | Amount |
|----------------------|--------------|
| Land | Own/Rented |
| Plant & Machinery | 11.50 |
| Furniture & Fixtures | 0.50 |
| Working Capital | 5.41 |
| Total | 17.41 |

MEANS OF FINANCE

| Particulars | Amount |
|--------------------------|--------------|
| Own Contribution | 1.74 |
| Working Capital(Finance) | 4.87 |
| Term Loan | 10.80 |
| Total | 17.41 |

PLASTIC EGG TRAY MANUFACTURING UNIT

Introduction:

Egg trays are tray-shaped material with a pocket used to hold and protect eggs from damage in the transportation process. Egg trays are designed primarily for the shipment of multiple numbers and varieties of eggs. The primary material used for trays fabrication is dimpled foam, but technology advancement introduces new materials such as plastics into this field. These materials allow the eggs to be easily stored. The primary use of the egg tray is for packaging and storing purposes. The egg trays are made up of plastics, which mainly include polyvinyl chloride polymers (PVC), polypropylene (PP), or sometimes polystyrene (PS).



Uses & Market Potential:

Egg trays are used to transport, carry, provide protection and keep them separate from each other. Increasing demand for nutritious food, including eggs, due to the rise in health awareness is the primary factor in escalating market growth. Eggs are

a quickly cooked and healthy edible option for many populations. In India, eggs per capita consumption has risen to 68 from 30 eggs per annum. Eggs are considered a few of the primary sources of proteins, vitamins, and minerals and can provide 1/5th of the individual's daily requirement. Due to their multiple health benefits, they are consumed as breakfast in households and restaurants in several countries. The growing production of eggs for the growing consumer (APAC records) demands also leads to egg trays production load. China is a leading giant in the production of eggs worldwide, as it produced more than 300 billion eggs in 2016 along with it the price of packaging products for eggs rose by 1.62 times during 2000-2018. For example, an egg tray cost 7.42\$ in 2000. The price of the tray went up to 12.10\$ in 2018.

Product:

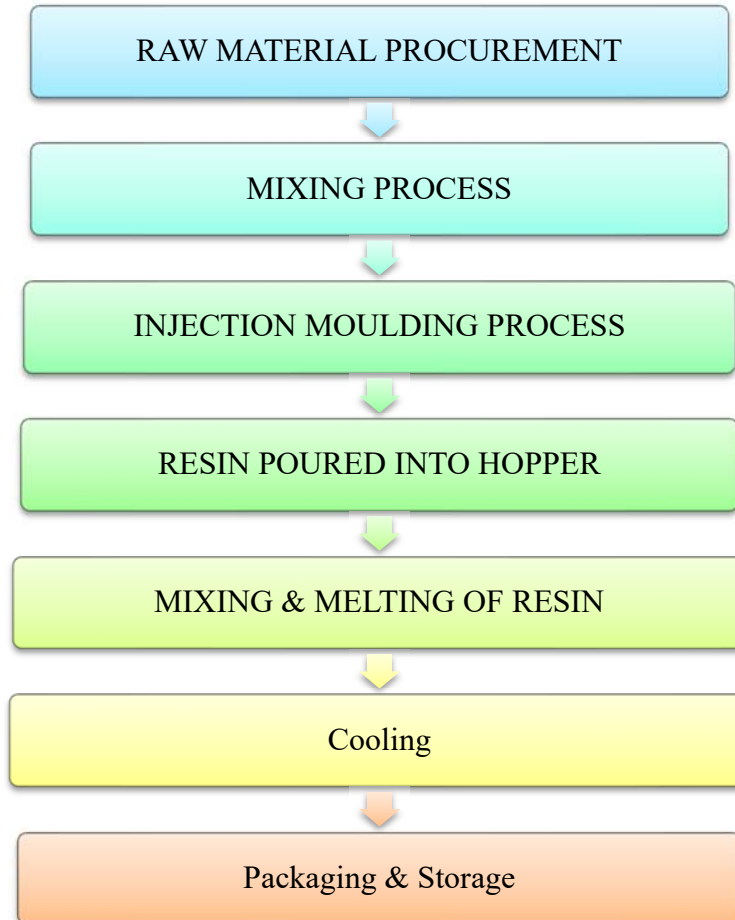
Plastic Egg Trays

Raw Material:

Basic raw materials are:

- PVC (polyvinylchloride), polypropylene (PP), polystyrene (PS) are few of the main component which can be used for production of product. Generally, PVC is preferred over others due to the easy molding process and low cost. It consists of a vinyl chloride monomer. The resin of PVC looks like a white powdery substance.
- Pigments such as organic and inorganic pigments are added in the form of powder.
- Fillers such as talc and calcium carbonate in the form of power.

Manufacturing Process:



Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and polishing area. Also, some of the area of building is required for office staff facilities, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1500-2000Sqft.

Cost of Machines:

| Machine | Unit | Rate | Price |
|----------------------------|-------------|-------------|----------------|
| Injection Moulding Machine | 1 | 1000000 | 1000000 |
| Cooling Tower | 1 | 75000 | 75000 |
| Scrap Tower | 1 | 75000 | 75000 |
| Total Amount | | | 1150000 |

Power Requirement- The estimated Power requirement is taken at 20 HP.

Manpower Requirement- Following manpower is required:

- Machine operator-2
- Skilled/unskilled worker-3
- Helper-4
- Manager cum Accountant-1
- Sales Personnel-1

FINANCIALS

PROJECTED BALANCE SHEET

| PARTICULARS | I | II | III | IV | V |
|-----------------------------------|--------------|--------------|--------------|--------------|--------------|
| | | | | | |
| | | | | | |
| <u>SOURCES OF FUND</u> | | | | | |
| <u>Capital Account</u> | | | | | |
| Opening Balance | - | 2.58 | 3.71 | 5.07 | 6.85 |
| Add: Additions | 1.74 | - | - | - | - |
| Add: Net Profit | 4.04 | 4.93 | 5.66 | 6.57 | 7.53 |
| Less: Drawings | 3.20 | 3.80 | 4.30 | 4.80 | 5.20 |
| Closing Balance | 2.58 | 3.71 | 5.07 | 6.85 | 9.17 |
| CC Limit | 4.87 | 4.87 | 4.87 | 4.87 | 4.87 |
| Term Loan | 9.60 | 7.20 | 4.80 | 2.40 | - |
| Sundry Creditors | 1.62 | 1.79 | 1.97 | 2.15 | 2.34 |
| | | | | | |
| TOTAL : | 18.67 | 17.57 | 16.71 | 16.27 | 16.38 |
| | | | | | |
| | | | | | |
| | | | | | |
| <u>APPLICATION OF FUND</u> | | | | | |
| | | | | | |
| Fixed Assets (Gross) | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| Gross Dep. | 1.78 | 3.29 | 4.57 | 5.67 | 6.60 |
| Net Fixed Assets | 10.23 | 8.71 | 7.43 | 6.33 | 5.40 |
| | | | | | |
| Current Assets | | | | | |
| Sundry Debtors | 2.87 | 3.40 | 3.81 | 4.24 | 4.69 |
| Stock in Hand | 4.16 | 4.63 | 5.13 | 5.65 | 6.18 |
| Cash and Bank | 1.42 | 0.83 | 0.34 | 0.05 | 0.11 |
| | | | | | |
| TOTAL : | 18.67 | 17.57 | 16.71 | 16.27 | 16.38 |
| | | | | | |
| | - | - | - | - | - |

PROJECTED PROFITABILITY STATEMENT

| PARTICULARS | I | II | III | IV | V |
|----------------------------------|---------------|---------------|---------------|---------------|---------------|
| <u>A) SALES</u> | | | | | |
| Gross Sale | 61.56 | 72.84 | 81.61 | 90.82 | 100.49 |
| Total (A) | 61.56 | 72.84 | 81.61 | 90.82 | 100.49 |
| <u>B) COST OF SALES</u> | | | | | |
| Raw Material Consumed | 32.40 | 35.80 | 39.31 | 42.96 | 46.73 |
| Electricity Expenses | 2.69 | 2.91 | 3.13 | 3.36 | 3.58 |
| Repair & Maintenance | 1.54 | 1.82 | 2.04 | 2.27 | 2.51 |
| Labour & Wages | 12.35 | 14.82 | 17.48 | 20.28 | 23.12 |
| Depreciation | 1.78 | 1.51 | 1.29 | 1.10 | 0.93 |
| Cost of Production | 50.75 | 56.86 | 63.26 | 69.97 | 76.88 |
| Add: Opening Stock /WIP | - | 2.54 | 2.84 | 3.16 | 3.50 |
| Less: Closing Stock /WIP | 2.54 | 2.84 | 3.16 | 3.50 | 3.84 |
| Cost of Sales (B) | 48.21 | 56.56 | 62.94 | 69.63 | 76.53 |
| C) GROSS PROFIT (A-B) | 13.35 | 16.29 | 18.67 | 21.19 | 23.95 |
| | 21.69% | 22.36% | 22.88% | 23.33% | 23.84% |
| D) Bank Interest i) (Term Loan) | 1.17 | 0.96 | 0.69 | 0.43 | 0.17 |
| ii) Interest On Working Capital | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 |
| E) Salary to Staff | 6.68 | 7.68 | 8.83 | 9.89 | 10.88 |
| F) Selling & Adm Expenses Exp. | 0.92 | 2.04 | 2.61 | 3.18 | 4.02 |
| G) TOTAL (D+E+F) | 9.31 | 11.21 | 12.67 | 14.03 | 15.60 |
| H) NET PROFIT | 4.04 | 5.08 | 6.00 | 7.15 | 8.35 |
| | 6.6% | 7.0% | 7.4% | 7.9% | 8.3% |
| I) Taxation | - | 0.15 | 0.34 | 0.58 | 0.83 |
| J) PROFIT (After Tax) | 4.04 | 4.93 | 5.66 | 6.57 | 7.53 |

PROJECTED CASH FLOW STATEMENT

| PARTICULARS | I | II | III | IV | V |
|-----------------------------------|--------------|-------------|-------------|-------------|-------------|
| <u>SOURCES OF FUND</u> | | | | | |
| Own Contribution | 1.74 | - | - | - | - |
| Reserve & Surplus | 4.04 | 5.08 | 6.00 | 7.15 | 8.35 |
| Depreciation & Exp. W/off | 1.78 | 1.51 | 1.29 | 1.10 | 0.93 |
| Increase In Cash Credit | 4.87 | - | - | - | - |
| Increase In Term Loan | 10.80 | - | - | - | - |
| Increase in Creditors | 1.62 | 0.17 | 0.18 | 0.18 | 0.19 |
| TOTAL : | 24.85 | 6.76 | 7.46 | 8.43 | 9.48 |
| <u>APPLICATION OF FUND</u> | | | | | |
| Increase in Fixed Assets | 12.00 | - | - | - | - |
| Increase in Stock | 4.16 | 0.48 | 0.50 | 0.52 | 0.53 |
| Increase in Debtors | 2.87 | 0.53 | 0.41 | 0.43 | 0.45 |
| Repayment of Term Loan | 1.20 | 2.40 | 2.40 | 2.40 | 2.40 |
| Taxation | - | 0.15 | 0.34 | 0.58 | 0.83 |
| Drawings | 3.20 | 3.80 | 4.30 | 4.80 | 5.20 |
| TOTAL : | 23.43 | 7.35 | 7.94 | 8.73 | 9.41 |
| Opening Cash & Bank Balance | - | 1.42 | 0.83 | 0.34 | 0.05 |
| Add : Surplus | 1.42 | - 0.59 | - 0.48 | - 0.29 | 0.06 |
| Closing Cash & Bank Balance | 1.42 | 0.83 | 0.34 | 0.05 | 0.11 |

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

| PARTICULARS | I | II | III | IV | V |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| | | | | | |
| | | | | | |
| <u>Finished Goods</u> | | | | | |
| (15 Days requirement) | 2.54 | 2.84 | 3.16 | 3.50 | 3.84 |
| <u>Raw Material</u> | | | | | |
| (15 Days requirement) | 1.62 | 1.79 | 1.97 | 2.15 | 2.34 |
| | | | | | |
| Closing Stock | 4.16 | 4.63 | 5.13 | 5.65 | 6.18 |

COMPUTATION OF WORKING CAPITAL REQUIREMENT

| Particulars | Amount | Margin(10%) | Net Amount |
|------------------------------------|---------------|--------------------|-----------------------|
| Stock in Hand | 4.16 | | |
| Less: | | | |
| Sundry Creditors | 1.62 | | |
| Paid Stock | 2.54 | 0.25 | 2.28 |
| | | | |
| Sundry Debtors | 2.87 | 0.29 | 2.59 |
| Working Capital Requirement | | | 4.87 |
| | | | |
| Margin | | | 0.54 |
| | | | |
| MPBF | | | 4.87 |
| Working Capital Demand | | | 4.87 |

BREAK UP OF LABOUR

| Particulars | Wages | No of | Total |
|--|------------------|------------------|---------------|
| | Per Month | Employees | Salary |
| Machine Operator | 15,000.00 | 2 | 30,000.00 |
| Skilled/Unskilled Worker | 12,000.00 | 3 | 36,000.00 |
| Helper | 8,000.00 | 4 | 32,000.00 |
| | | | - |
| | | | 98,000.00 |
| Add: 5% Fringe Benefit | | | 4,900.00 |
| Total Labour Cost Per Month | | | 1,02,900.00 |
| Total Labour Cost for the year (In Rs. Lakhs) | | 9 | 12.35 |

BREAK UP OF SALARY

| Particulars | Salary | No of | Total |
|---|------------------|------------------|---------------|
| | Per Month | Employees | Salary |
| Manager cum Accountant | 28,000.00 | 1 | 28,000.00 |
| Sales personnel | 25,000.00 | 1 | 25,000.00 |
| | | | - |
| Total Salary Per Month | | | 53,000.00 |
| Add: 5% Fringe Benefit | | | 2,650.00 |
| Total Salary for the month | | | 55,650.00 |
| | | | |
| Total Salary for the year (In Rs. Lakhs) | | 2 | 6.68 |

REPAYMENT SCHEDULE OF TERM LOAN

11.0%

| Year | Particulars | Amount | Addition | Total | Interest | Repayment | CI Balance |
|------------|-----------------|--------|----------|-------|----------|-----------|------------|
| I | Opening Balance | | | | | | |
| | Ist Quarter | - | 10.80 | 10.80 | 0.30 | - | 10.80 |
| | Iind Quarter | 10.80 | - | 10.80 | 0.30 | - | 10.80 |
| | IIIrd Quarter | 10.80 | - | 10.80 | 0.30 | 0.60 | 10.20 |
| | Ivth Quarter | 10.20 | - | 10.20 | 0.28 | 0.60 | 9.60 |
| | | | | | 1.17 | 1.20 | |
| II | Opening Balance | | | | | | |
| | Ist Quarter | 9.60 | - | 9.60 | 0.26 | 0.60 | 9.00 |
| | Iind Quarter | 9.00 | - | 9.00 | 0.25 | 0.60 | 8.40 |
| | IIIrd Quarter | 8.40 | - | 8.40 | 0.23 | 0.60 | 7.80 |
| | Ivth Quarter | 7.80 | | 7.80 | 0.21 | 0.60 | 7.20 |
| | | | | | 0.96 | 2.40 | |
| III | Opening Balance | | | | | | |
| | Ist Quarter | 7.20 | - | 7.20 | 0.20 | 0.60 | 6.60 |
| | Iind Quarter | 6.60 | - | 6.60 | 0.18 | 0.60 | 6.00 |
| | IIIrd Quarter | 6.00 | - | 6.00 | 0.17 | 0.60 | 5.40 |
| | Ivth Quarter | 5.40 | | 5.40 | 0.15 | 0.60 | 4.80 |
| | | | | | 0.69 | 2.40 | |
| IV | Opening Balance | | | | | | |
| | Ist Quarter | 4.80 | - | 4.80 | 0.13 | 0.60 | 4.20 |
| | Iind Quarter | 4.20 | - | 4.20 | 0.12 | 0.60 | 3.60 |
| | IIIrd Quarter | 3.60 | - | 3.60 | 0.10 | 0.60 | 3.00 |
| | Ivth Quarter | 3.00 | | 3.00 | 0.08 | 0.60 | 2.40 |
| | | | | | 0.43 | 2.40 | |
| V | Opening Balance | | | | | | |
| | Ist Quarter | 2.40 | - | 2.40 | 0.07 | 0.60 | 1.80 |
| | Iind Quarter | 1.80 | - | 1.80 | 0.05 | 0.60 | 1.20 |
| | IIIrd Quarter | 1.20 | - | 1.20 | 0.03 | 0.60 | 0.60 |
| | Ivth Quarter | 0.60 | | 0.60 | 0.02 | 0.60 | 0.00 |
| | | | | | 0.17 | 2.40 | |

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> | 5.82 | 6.44 | 6.95 | 7.67 | 8.46 |
| | | | | | |
| Interest on Term Loan | 1.17 | 0.96 | 0.69 | 0.43 | 0.17 |
| | | | | | |
| Total | 6.99 | 7.40 | 7.64 | 8.10 | 8.62 |
| | | | | | |
| <u>REPAYMENT</u> | | | | | |
| Repayment of Term Loan | 1.20 | 2.40 | 2.40 | 2.40 | 2.40 |
| Interest on Term Loan | 1.17 | 0.96 | 0.69 | 0.43 | 0.17 |
| | | | | | |
| Total | 2.37 | 3.36 | 3.09 | 2.83 | 2.57 |
| | | | | | |
| DEBT SERVICE COVERAGE RATIO | 2.95 | 2.20 | 2.47 | 2.86 | 3.36 |
| | | | | | |
| AVERAGE D.S.C.R. | | | 2.73 | | |

Assumptions:

1. Production Capacity of Plastic egg tray manufacturing unit is taken at 1500 Pcs per day. First year, Capacity has been taken @ 60%.
2. Working shift of 10 hours per day has been considered.
3. Raw Material stock and Finished goods closing stock has been taken for 15 days.
4. Credit period to Sundry Debtors has been given for 14 days.
5. Credit period by the Sundry Creditors has been provided for 15 days.
6. Depreciation and Income tax has been taken as per the Income tax Act,1961.
7. Interest on working Capital Loan and Term loan has been taken at 11%.
8. Salary and wages rates are taken as per the Current Market Scenario.
9. Power Consumption has been taken at 20 HP.
10. Selling Prices & Raw material costing has been increased by 3% & 2% respectively in the subsequent years.

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