

PROJECT REPORT

Of

BANANA PAPER

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Banana paper 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 GLANCE

| | |
|--------------------------------------|---------------------------------------|
| 1 Name of Proprietor/Director | XXXXXXXXXX |
| 2 Firm Name | XXXXXXXXXX |
| 3 Registered Address | XXXXXXXXXX |
| 4 Nature of Activity | XXXXXXXXXX |
| 5 Category of Applicant | XXXXXXXXXX |
| 6 Location of Unit | XXXXXXXXXX |
| 7 Cost of Project | 16.47 Rs. In Lakhs |
| 8 Means of Finance | |
| i) Own Contribution | 1.65 Rs. In Lakhs |
| ii) Term Loan | 11.93 Rs. In Lakhs |
| iii) Working Capital | 2.90 Rs. In Lakhs |
| 9 Debt Service Coverage Ratio | 2.97 |
| 10 Break Even Point | 33% |
| 11 Power Requirement | 30 KW |
| 12 Employment | 8 Persons |
| 13 Major Raw Materials | Stem part of banana tree,oily solvent |

14 Details of Cost of Project & Means of Finance

| Cost of Project | Amount in Lacs |
|-----------------------------|-----------------------|
| Particulars | Amount |
| Land and building | Owned/Leased |
| Plant & Machinery | 12.00 |
| Furniture & Fixture | 0.75 |
| Other Misc Assets | 0.50 |
| Working Capital Requirement | 3.22 |
| Total | 16.47 |

| Means of Finance | Amount |
|-------------------------|---------------|
| Particulars | Amount |
| Own Contribution | 1.65 |
| Term Loan | 11.93 |
| Working capital Loan | 2.90 |
| Total | 16.47 |

BANANA PAPER MANUFACTURING UNIT

1. INTRODUCTION



Banana, fruit of the genus *Musa*, of the family Musaceae, one of the most important fruit crops of the world. The banana is grown in the tropics, and, though it is most widely consumed in this region, it is valued worldwide for its flavour, nutritional value, and availability throughout the year. Cavendish, or dessert, bananas are most commonly eaten fresh, though they may be fried or mashed and chilled in pies or puddings. Banana may also be used to flavour muffins, cakes, or breads. Banana plants thrive naturally

on deep, loose, well-drained soils in humid tropical climates, and they are grown successfully under irrigation in such semiarid regions as southern Jamaica. Suckers and divisions of the rhizome are used as planting material; the first crop ripens within 10 to 15 months, and thereafter fruit production is more or less continuous. Banana paper is a type of paper created from banana plant bark or banana peel fibres. Banana paper has a lower density, higher stiffness, higher disposability, higher renewability, and higher tensile strength compared to traditional paper. These qualities are due to the cellular composition of banana fibre, which consists of cellulose, hemi cellulose, and lignin.

2. PRODUCT DESCRIPTION

2.1 PRODUCT USES

- Banana Paper helps prevent excessive pollution of the eco-system's rivers and forests.
- Banana paper is used in lights, artwork, sketching and can be turned into beautiful journals and Note books well.
- The Banana paper is used screen print and ink jet friendly and available from 30 to 380 GSM.

2.2 MANUFACTURING PROCESS

This process can be broken down into the following steps:

- Raw material procurement
- Production Process

Raw Material Procurement: Procurement is the connection process of purchasing and arranging in bound movement of all items, supplies, materials, parts, finished inventory and general support services from the suppliers into manufacturing process or assembly plants or warehouses.

Production Process

Steps involved in the manufacturing of Banana Paper:

- ✓ **Collecting of Banana stem:** The collection of banana stem take place before proceed to cutting operation.
- ✓ **Cutting of materials:** The banana stem is collecting and cutting down in a small part so that proper semi liquid product can be made.
- ✓ **Pulping of stem:** The process carried to remove fibre present in the process before going to remove moisture from it.
- ✓ **Beating process for paper:** The removal of water from semi liquid product done by pressing of the residue to remove water content.
- ✓ **Screening of residue:** The semi liquid product can be placed over this plate and solidification take place.
- ✓ **Removal of residual moisture:** The residual moisture can be removed by putting plate in a vertical position so that water totally removed.
- ✓ **Packaging of paper:** Banana paper are proceeded for packaging process according to standards customer requirement.

3. PROJECT COMPONENTS

3.1 Land /Civil Work

The land required for this manufacturing unit will be approx. around 800-1000 square feet. Land Purchase and Building Civil Work Cost have not been considered as part of

the cost of project. It is expected that the premises will be on rental and approximate rentals assumed of the same will be Rs. 15,000 per month.

- Workshop Area- This area includes the setup and foundation space for all equipment's, work floor area, etc. Total workshop area is approx. 450 Sqft.
- Inventory Area- This area includes the storage space for all the raw materials and finished goods. Total inventory area is approx. 300 Sqft.
- Office Area – This space includes staff working region, their accommodation space. Total workshop area is approx. 150 Sqft. This may be considered above the ground floor.
- Parking Space, Electric Mounting Space, and Others. This could be approx. 100 Sqft.

Land and building requirement may vary depending on the size of project

3.2 Plant & Machinery

Machines-

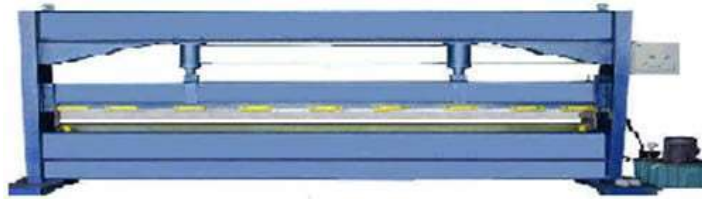
Stem Cutter: The stem cutter is used to cut the large portion of Banana stem into small parts.



- ✓ **Pulp bater:** The pulp machine is used to convert the solid input product of banana tree into the semi liquid removing fibre from it.



- ✓ **Hydraulic Press:** The hydraulic press is used to remove moisture from the pulp during the process.



- ✓ **Screen Plate:** The screen plate is used to solidify the semi liquid product of the banana stem into a thin sheet after removing moisture.



Cost of Plant & machinery

| S No. | Name of the machineries | Unit Price | Qty | Cost (INR) |
|--------------|-------------------------|------------|-----|------------------|
| 1. | Stem Cutter | 75,000 | 2 | 1,50,000 |
| 2. | Pulp Beater | 3,00,000 | 1 | 3,00,000 |
| 3. | Hydraulic Press | 4,15,000 | 1 | 4,15,000 |
| 4. | Screen plate | 2,50,000 | 1 | 2,50,000 |
| 5. | Other Equipment | | | 85,000 |
| TOTAL | | | | 12,00,000 |

Note: The aforesaid cost of Plant and Machinery is inclusive of GST and other transportation cost.

4. LICENSE AND APPROVALS

1. MSME Udyam online registration.
2. GST Registration
3. BIS Certification
4. NOC from the Pollution Department

PROJECTED BALANCE SHEET**(in Lacs)**

| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| <u>Liabilities</u> | | | | | |
| Capital | | | | | |
| Opening Balance | | 4.68 | 6.68 | 8.30 | 10.32 |
| Add:- Own Capital | 1.65 | | | | |
| Add:- Retained Profit | 5.03 | 6.01 | 6.86 | 7.78 | 8.73 |
| Less:- Drawings | 2.00 | 4.00 | 5.25 | 5.75 | 6.50 |
| Closing Balance | 4.68 | 6.68 | 8.30 | 10.32 | 12.55 |
| Term Loan | 10.60 | 7.95 | 5.30 | 2.65 | - |
| Working Capital Limit | 2.89 | 2.89 | 2.89 | 2.89 | 2.89 |
| Sundry Creditors | 1.52 | 1.81 | 1.83 | 2.05 | 2.14 |
| Provisions & Other Liabilities | 1.00 | 1.50 | 1.80 | 2.16 | 2.59 |
| TOTAL : | 20.69 | 20.84 | 20.12 | 20.07 | 20.18 |
| <u>Assets</u> | | | | | |
| Fixed Assets (Gross) | 13.25 | 13.25 | 13.25 | 13.25 | 13.25 |
| Gross Depreciation | 1.96 | 3.63 | 5.06 | 6.27 | 7.30 |
| Net Fixed Assets | 11.29 | 9.62 | 8.19 | 6.98 | 5.95 |
| Current Assets | | | | | |
| Sundry Debtors | 2.16 | 2.63 | 3.96 | 4.51 | 4.80 |
| Stock in Hand | 2.57 | 3.13 | 3.60 | 4.10 | 4.62 |
| Cash and Bank | 0.67 | 0.46 | 0.87 | 0.48 | 0.30 |
| Loans and advances/other current assets | 4.00 | 5.00 | 3.50 | 4.00 | 4.50 |
| TOTAL : | 20.69 | 20.84 | 20.12 | 20.07 | 20.18 |

| <u>PROJECTED PROFITABILITY STATEMENT</u> | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| (in Lacs) | | | | | |
| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
| Capacity Utilisation % | 50% | 55% | 60% | 65% | 70% |
| <u>SALES</u> | | | | | |
| BANANA PAPER | 49.88 | 60.77 | 69.91 | 79.64 | 89.98 |
| Total | 49.88 | 60.77 | 69.91 | 79.64 | 89.98 |
| <u>COST OF SALES</u> | | | | | |
| Raw material cost | 24.00 | 27.19 | 30.55 | 34.09 | 37.82 |
| Electricity Expenses | 3.60 | 3.96 | 4.32 | 4.68 | 5.04 |
| Depreciation | 1.96 | 1.67 | 1.42 | 1.21 | 1.03 |
| Wages & labour | 9.54 | 11.26 | 13.28 | 15.67 | 18.50 |
| Repair & maintenance | 0.25 | 0.61 | 0.87 | 1.19 | 1.35 |
| Consumables | 0.75 | 0.91 | 1.05 | 1.19 | 1.35 |
| Packaging cost | 0.62 | 1.06 | 1.47 | 1.99 | 2.52 |
| Cost of Production | 40.72 | 46.66 | 52.97 | 60.04 | 67.60 |
| Add: Opening Stock | - | 2.49 | 3.04 | 3.50 | 3.98 |
| Less: Closing Stock | 2.49 | 3.04 | 3.50 | 3.98 | 4.50 |
| Cost of Sales | 38.23 | 46.12 | 52.51 | 59.55 | 67.09 |
| GROSS PROFIT | 11.65 | 14.65 | 17.39 | 20.09 | 22.89 |
| Salary to Staff | 2.40 | 2.88 | 3.46 | 4.15 | 4.98 |
| Interest on Term Loan | 1.17 | 1.03 | 0.74 | 0.45 | 0.16 |
| Interest on working Capital | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Rent | 1.44 | 1.73 | 2.07 | 2.49 | 2.99 |
| Selling & Administration Expenses | 1.12 | 2.28 | 3.32 | 4.06 | 4.63 |
| TOTAL | 6.45 | 8.24 | 9.91 | 11.46 | 13.07 |
| NET PROFIT | 5.19 | 6.42 | 7.48 | 8.63 | 9.82 |
| Taxation | 0.16 | 0.41 | 0.62 | 0.85 | 1.09 |
| PROFIT (After Tax) | 5.03 | 6.01 | 6.86 | 7.78 | 8.73 |

PROJECTED CASH FLOW STATEMENT**(in Lacs)**

| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|
| <u>SOURCES OF FUND</u> | | | | | |
| Own Margin | 1.65 | | | | |
| Net Profit | 5.19 | 6.42 | 7.48 | 8.63 | 9.82 |
| Depriciation & Exp. W/off | 1.96 | 1.67 | 1.42 | 1.21 | 1.03 |
| Increase in Cash Credit | 2.89 | - | - | - | - |
| Increase In Term Loan | 11.93 | - | - | - | - |
| Increase in Creditors | 1.52 | 0.29 | 0.02 | 0.21 | 0.10 |
| Increase in Provisions & Other liabilities | 1.00 | 0.50 | 0.30 | 0.36 | 0.43 |
| TOTAL : | 26.14 | 8.88 | 9.23 | 10.41 | 11.38 |
| <u>APPLICATION OF FUND</u> | | | | | |
| Increase in Fixed Assets | 13.25 | | | | |
| Increase in Stock | 2.57 | 0.56 | 0.47 | 0.50 | 0.53 |
| Increase in Debtors | 2.16 | 0.47 | 1.33 | 0.55 | 0.29 |
| Increase in loans and advances | 4.00 | 1.00 | 1.50 | 0.50 | 0.50 |
| Repayment of Term Loan | 1.33 | 2.65 | 2.65 | 2.65 | 2.65 |
| Drawings | 2.00 | 4.00 | 5.25 | 5.75 | 6.50 |
| Taxation | 0.16 | 0.41 | 0.62 | 0.85 | 1.09 |
| TOTAL : | 25.47 | 9.09 | 8.82 | 10.80 | 11.55 |
| Opening Cash & Bank Balance | - | 0.67 | 0.46 | 0.87 | 0.48 |
| Add : Surplus | 0.67 | -0.21 | 0.41 | -0.39 | -0.17 |
| Closing Cash & Bank Balance | 0.67 | 0.46 | 0.87 | 0.48 | 0.30 |

CALCULATION OF D.S.C.R

| PARTICULARS | 1st year | 2nd year | 3rd year | 4th year | 5th year |
|------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | | | | |
| CASH ACCRUALS | 6.99 | 7.68 | 8.29 | 8.99 | 9.76 |
| Interest on Term Loan | 1.17 | 1.03 | 0.74 | 0.45 | 0.16 |
| Total | 8.16 | 8.71 | 9.03 | 9.44 | 9.92 |
| | | | | | |
| REPAYMENT | | | | | |
| Instalment of Term Loan | 1.33 | 2.65 | 2.65 | 2.65 | 2.65 |
| Interest on Term Loan | 1.17 | 1.03 | 0.74 | 0.45 | 0.16 |
| | | | | | |
| Total | 2.50 | 3.68 | 3.39 | 3.10 | 2.81 |
| | | | | | |
| DEBT SERVICE COVERAGE RATIO | 3.27 | 2.37 | 2.66 | 3.04 | 3.53 |
| AVERAGE D.S.C.R. | | | | | 2.97 |

| REPAYMENT SCHEDULE OF TERM LOAN | | | | | | | | |
|---------------------------------|-----------------|--------|----------|-------|-------------|-------------|-----------------|--------|
| | | | | | | | Interest | 11.00% |
| Year | Particulars | Amount | Addition | Total | Interest | Repayment | Closing Balance | |
| 1st | Opening Balance | - | | | | | | |
| | 1st month | | 11.93 | 11.93 | - | | 11.93 | |
| | 2nd month | 11.93 | - | 11.93 | 0.11 | - | 11.93 | |
| | 3rd month | 11.93 | - | 11.93 | 0.11 | - | 11.93 | |
| | 4th month | 11.93 | - | 11.93 | 0.11 | - | 11.93 | |
| | 5th month | 11.93 | - | 11.93 | 0.11 | - | 11.93 | |
| | 6th month | 11.93 | - | 11.93 | 0.11 | - | 11.93 | |
| | 7th month | 11.93 | - | 11.93 | 0.11 | 0.22 | 11.70 | |
| | 8th month | 11.70 | - | 11.70 | 0.11 | 0.22 | 11.48 | |
| | 9th month | 11.48 | - | 11.48 | 0.11 | 0.22 | 11.26 | |
| | 10th month | 11.26 | - | 11.26 | 0.10 | 0.22 | 11.04 | |
| | 11th month | 11.04 | - | 11.04 | 0.10 | 0.22 | 10.82 | |
| | 12th month | 10.82 | - | 10.82 | 0.10 | 0.22 | 10.60 | |
| | | | | | 1.17 | 1.33 | | |
| 2nd | Opening Balance | | | | | | | |
| | 1st month | 10.60 | - | 10.60 | 0.10 | 0.22 | 10.38 | |
| | 2nd month | 10.38 | - | 10.38 | 0.10 | 0.22 | 10.16 | |
| | 3rd month | 10.16 | - | 10.16 | 0.09 | 0.22 | 9.94 | |
| | 4th month | 9.94 | - | 9.94 | 0.09 | 0.22 | 9.72 | |
| | 5th month | 9.72 | - | 9.72 | 0.09 | 0.22 | 9.50 | |
| | 6th month | 9.50 | - | 9.50 | 0.09 | 0.22 | 9.28 | |
| | 7th month | 9.28 | - | 9.28 | 0.09 | 0.22 | 9.05 | |
| | 8th month | 9.05 | - | 9.05 | 0.08 | 0.22 | 8.83 | |
| | 9th month | 8.83 | - | 8.83 | 0.08 | 0.22 | 8.61 | |
| | 10th month | 8.61 | - | 8.61 | 0.08 | 0.22 | 8.39 | |
| | 11th month | 8.39 | - | 8.39 | 0.08 | 0.22 | 8.17 | |
| | 12th month | 8.17 | - | 8.17 | 0.07 | 0.22 | 7.95 | |
| | | | | | 1.03 | 2.65 | | |
| 3rd | Opening Balance | | | | | | | |
| | 1st month | 7.95 | - | 7.95 | 0.07 | 0.22 | 7.73 | |
| | 2nd month | 7.73 | - | 7.73 | 0.07 | 0.22 | 7.51 | |
| | 3rd month | 7.51 | - | 7.51 | 0.07 | 0.22 | 7.29 | |
| | 4th month | 7.29 | - | 7.29 | 0.07 | 0.22 | 7.07 | |
| | 5th month | 7.07 | - | 7.07 | 0.06 | 0.22 | 6.85 | |
| | 6th month | 6.85 | - | 6.85 | 0.06 | 0.22 | 6.63 | |
| | 7th month | 6.63 | - | 6.63 | 0.06 | 0.22 | 6.40 | |
| | 8th month | 6.40 | - | 6.40 | 0.06 | 0.22 | 6.18 | |
| | 9th month | 6.18 | - | 6.18 | 0.06 | 0.22 | 5.96 | |
| | 10th month | 5.96 | - | 5.96 | 0.05 | 0.22 | 5.74 | |
| | 11th month | 5.74 | - | 5.74 | 0.05 | 0.22 | 5.52 | |

| | | | | | | | |
|------------|-------------------|------|--------|------|-------------|-------------|------|
| | 12th month | 5.52 | - | 5.52 | 0.05 | 0.22 | 5.30 |
| | | | | | 0.74 | 2.65 | |
| 4th | Opening Balance | | | | | | |
| | 1st month | 5.30 | - | 5.30 | 0.05 | 0.22 | 5.08 |
| | 2nd month | 5.08 | - | 5.08 | 0.05 | 0.22 | 4.86 |
| | 3rd month | 4.86 | - | 4.86 | 0.04 | 0.22 | 4.64 |
| | 4th month | 4.64 | - | 4.64 | 0.04 | 0.22 | 4.42 |
| | 5th month | 4.42 | - | 4.42 | 0.04 | 0.22 | 4.20 |
| | 6th month | 4.20 | - | 4.20 | 0.04 | 0.22 | 3.98 |
| | 7th month | 3.98 | - | 3.98 | 0.04 | 0.22 | 3.75 |
| | 8th month | 3.75 | - | 3.75 | 0.03 | 0.22 | 3.53 |
| | 9th month | 3.53 | - | 3.53 | 0.03 | 0.22 | 3.31 |
| | 10th month | 3.31 | - | 3.31 | 0.03 | 0.22 | 3.09 |
| | 11th month | 3.09 | - | 3.09 | 0.03 | 0.22 | 2.87 |
| | 12th month | 2.87 | - | 2.87 | 0.03 | 0.22 | 2.65 |
| | | | | | 0.45 | 2.65 | |
| 5th | Opening Balance | | | | | | |
| | 1st month | 2.65 | - | 2.65 | 0.02 | 0.22 | 2.43 |
| | 2nd month | 2.43 | - | 2.43 | 0.02 | 0.22 | 2.21 |
| | 3rd month | 2.21 | - | 2.21 | 0.02 | 0.22 | 1.99 |
| | 4th month | 1.99 | - | 1.99 | 0.02 | 0.22 | 1.77 |
| | 5th month | 1.77 | - | 1.77 | 0.02 | 0.22 | 1.55 |
| | 6th month | 1.55 | - | 1.55 | 0.01 | 0.22 | 1.33 |
| | 7th month | 1.33 | - | 1.33 | 0.01 | 0.22 | 1.10 |
| | 8th month | 1.10 | - | 1.10 | 0.01 | 0.22 | 0.88 |
| | 9th month | 0.88 | - | 0.88 | 0.01 | 0.22 | 0.66 |
| | 10th month | 0.66 | - | 0.66 | 0.01 | 0.22 | 0.44 |
| | 11th month | 0.44 | - | 0.44 | 0.00 | 0.22 | 0.22 |
| | 12th month | 0.22 | - | 0.22 | 0.00 | 0.22 | - |
| | | | | | 0.16 | 2.65 | |
| | DOOR TO DOOR | 60 | MONTHS | | | | |
| | MORATORIUM PERIOD | 6 | MONTHS | | | | |
| | REPAYMENT PERIOD | 54 | MONTHS | | | | |

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