

# UP MSME 1-Connect

## PROJECT REPORT

Planning to Start Your MSME Journey! Uncover Valuable Insights for your Business—Explore Now !!

PROJECT:

Paper Straw Unit

# **PROJECT REPORT**

## **Of**

# **PAPER STRAW**

## **PURPOSE OF THE DOCUMENT**

This particular pre-feasibility is regarding **Paper Straw**.

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.]



# PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx  
 Pin: xxxxxxxx  
 Mobile : xxxxxxxx  
 State: xxxxxxxxx
- 5 Product and By Product : PAPER STRAW
- 6 Name of the project / business activity proposed : PAPER STRAW MAKING UNIT
- 7 Cost of Project : Rs.19.44 Lakhs
- Means of Finance  
 Term Loan Rs.13.5 Lakhs  
 Own Capital Rs.1.94 Lakhs  
 Working capital Rs.4 Lakhs
- 9 Debt Service Coverage Ratio : 2.74
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 32%
- 13 Employment : 8 Persons
- 14 Power Requirement : 30.00 HP
- 15 Major Raw materials : Food Grade Paper, Food grade gum powder,Packing material
- 16 Estimated Annual Sales Turnover (Max Capacity) : 85.67 Lakhs
- 17 Detailed Cost of Project & Means of Finance

## COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Building /Shed 1000 Sq ft	4.00
Plant & Machinery	9.50
Furniture & Fixtures	1.50
Working Capital	4.44
Total	19.44

## MEANS OF FINANCE

Particulars	Amount
Own Contribution	1.94
Working Capital(Finance)	4.00
Term Loan	13.50
Total	19.44

# **PAPER STRAW**

**Introduction:** A paper drinking straw or drinking tube is a small pipe that allows its user to more conveniently consume a beverage. A thin tube of paper is used by placing one end in the mouth and the other in the beverage. Drinking straws can be straight or have an angle-adjustable bellows segment. Some companies have voluntarily banned or reduced the number of plastic straws distributed from their premises. Paper straw is gathering momentum due to ban imposed on the use of single use plastics. Manufacturing paper straws is a completely different process to producing plastic straws. Typically constructed of 3 plies of paper, the plies are bonded together with a small amount of water-based adhesive using a core-winding machine, or hot melt adhesives using a slot nozzle machine for very fast production lines. The choice of the paper and adhesive quality has a fundamental impact on the performance of the paper straw and the efficiency of manufacture.



**Uses & Market Potential:** Paper drinking straw is expected to have the high market growth due to rising demand of the paper drinking straw as the packaging industry is witnessing shift towards non-plastic sustainable

materials from plastic products. Consumers are widely using the paper drinking straws at home, parties, on-the-go drinks, concession stands, food service, schools, institutional and others. The global drinking straw market is segmented based on type as plastic drinking straw, and paper drinking straw. Paper drinking straw is expected to have the high market growth due to rising demand of the paper drinking straw as the packaging industry is witnessing shift towards non-plastic sustainable materials from plastic products. Consumers are widely using the paper drinking straws at home, parties, on the- go drinks, concession stands, food service, schools, institutional and others. Plastic drinking straw segment is expected to have the negative market growth over the forecasted period due to the banning of the plastic straws. Corporations, municipalities, and governments are imposing bans on the plastic straws.

**Raw Material:** Major raw material are as follows:

1. Food Grade Paper
2. Food Grade Gum Powder
3. Packing material

**Machine Requirement:** Major machinery and equipments are as follows:

Description	Quantity	Rate	Value
Paper straw making machine	1	900000	900000
Other equipments & hand tools	Ls		50000
<b>Total Amount</b>			<b>950000</b>

**Manufacturing Process:** The good quality of food grade paper rollis procured from the local authorized vendor and stored in the inventory. The paper straw could be in one colour of more than one colour. As per requirement of colour, the paper rolls are mounted over the roller stand of the machine.

The paper is fed through rollers and sends into the gluing section. Food grade glue is mounted over the corners of the paper. After this, the paper gets reminded through a set of rollers as per required dimension. The inner diameter of the straw could vary from 4.7mm to 20 mm. The paper strips are stitched over one another precisely and glued together.

After this, the straws are fed into the cutting section where the cutters are mounted. The straws are cut down as per the desired length and collected into the bins. After this, they are packed and dispatched as per the required quantity.

**Area:** The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and auxiliary like Generator setup. Also some of the area of building is required for office staff facilities, documentation, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1500 to 2000Sqft. Civil work cost will be Rs 4 Lac (Approx.)

**Power Requirement:** The power consumption required to run all the machinery could be approximated as 30 Hp

**Manpower Requirement:** There are requirement of skilled machine operators to run the machine set. Experience quality engineers are required for desired quality control. Some helpers are also required to transfer the material from one work station to other. Office staffs are required to maintain the documentation. The approximate manpower required is 8 including 1 Supervisor, 1 Plant operator, 1 unskilled worker, 1 Helper and 1 Security guard. 3 Skilled worker including Accountant, Manager and Sales person.

**Bank Term Loan:** Rate of Interest is assumed to be at 11%

**Depreciation:** Depreciation has been calculated as per the Provisions of Income Tax Act, 1961

**Approvals & Registration Requirement:**

Basic registration required in this project:

- GST Registration
- Udyog Aadhar Registration (Optional)
- Choice of a Brand Name of the product and secure the name with Trademark if require.
- NOC from State Pollution Control Board

**Implementation Schedule:**

S No.	Activity	Time required
1.	Acquisition of premises	1-2 Months
2.	Procurement & installation of Plant & Machinery	1-2 Months
3.	Arrangement of Finance	1.5-2 Months
4.	Requirement of required Manpower	1 Month
5.	Commercial Trial Runs	1 Month
	Total time Required (some activities shall run concurrently)	5-6 Months

**FINANCIALS**



<b>PROJECTED BALANCE SHEET</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>SOURCES OF FUND</u></b>					
<b><u>Capital Account</u></b>					
Opening Balance	-	3.48	5.60	8.08	11.13
Add: Additions	1.94	-	-	-	-
Add: Net Profit	4.54	6.12	7.49	9.05	9.64
Less: Drawings	3.00	4.00	5.00	6.00	6.50
<b>Closing Balance</b>	<b>3.48</b>	<b>5.60</b>	<b>8.08</b>	<b>11.13</b>	<b>14.27</b>
CC Limit	4.00	4.00	4.00	4.00	4.00
Term Loan	12.00	9.00	6.00	3.00	-
Sundry Creditors	0.70	0.80	0.86	0.93	1.00
<b>TOTAL :</b>	<b>20.18</b>	<b>19.40</b>	<b>18.95</b>	<b>19.06</b>	<b>19.27</b>
<b><u>APPLICATION OF FUND</u></b>					
<b>Fixed Assets (Gross)</b>	<b>15.00</b>	<b>15.00</b>	<b>15.00</b>	<b>15.00</b>	<b>15.00</b>
Gross Dep.	1.98	3.68	5.16	6.43	7.54
Net Fixed Assets	13.03	11.32	9.84	8.57	7.46
<b>Current Assets</b>					
Sundry Debtors	2.58	3.04	3.43	3.85	4.28
Stock in Hand	3.01	3.44	3.80	4.18	4.57
Cash and Bank	1.56	1.60	1.87	2.47	2.95
<b>TOTAL :</b>	<b>20.18</b>	<b>19.40</b>	<b>18.95</b>	<b>19.06</b>	<b>19.27</b>

- - - - -

<b>PROJECTED PROFITABILITY STATEMENT</b>					
PARTICULARS	I	II	III	IV	V
<b><u>A) SALES</u></b>					
Gross Sale	51.68	60.74	68.62	76.93	85.67
<b>Total (A)</b>	<b>51.68</b>	<b>60.74</b>	<b>68.62</b>	<b>76.93</b>	<b>85.67</b>
<b><u>B) COST OF SALES</u></b>					
Raw Material Consumed	29.87	34.21	37.06	39.91	42.76
Electricity Expenses	2.51	2.74	2.97	3.20	3.42
Repair & Maintenance	0.52	0.61	1.37	1.54	2.57
Labour & Wages	6.55	6.88	8.26	9.91	11.89
Depreciation	1.98	1.71	1.48	1.28	1.10
<b>Cost of Production</b>	<b>41.42</b>	<b>46.14</b>	<b>51.13</b>	<b>55.83</b>	<b>61.75</b>
<b>Add: Opening Stock /WIP</b>	<b>-</b>	<b>1.51</b>	<b>1.73</b>	<b>1.95</b>	<b>2.18</b>
<b>Less: Closing Stock /WIP</b>	<b>1.51</b>	<b>1.73</b>	<b>1.95</b>	<b>2.18</b>	<b>2.43</b>
Cost of Sales (B)	39.91	45.93	50.91	55.59	61.50
<b>C) GROSS PROFIT (A-B)</b>	<b>11.77</b>	<b>14.81</b>	<b>17.71</b>	<b>21.34</b>	<b>24.17</b>
	<b>22.78%</b>	<b>24.38%</b>	<b>25.81%</b>	<b>27.73%</b>	<b>28.21%</b>
D) Bank Interest (Term Loan )	1.46	1.20	0.87	0.54	0.21
ii) Interest On Working Capital	0.44	0.44	0.44	0.44	0.44
E) Salary to Staff	3.78	4.16	4.99	5.99	7.19
F) Selling & Adm Expenses Exp.	1.55	1.82	2.06	2.31	2.57
<b>TOTAL (D+E)</b>	<b>7.23</b>	<b>7.62</b>	<b>8.35</b>	<b>9.27</b>	<b>10.40</b>
<b>H) NET PROFIT</b>	<b>4.54</b>	<b>7.20</b>	<b>9.36</b>	<b>12.06</b>	<b>13.77</b>
	<b>8.8%</b>	<b>11.8%</b>	<b>13.6%</b>	<b>15.7%</b>	<b>16.1%</b>
I) Taxation	-	1.08	1.87	3.02	4.13
<b>J) PROFIT (After Tax)</b>	<b>4.54</b>	<b>6.12</b>	<b>7.49</b>	<b>9.05</b>	<b>9.64</b>

<b>PROJECTED CASH FLOW STATEMENT</b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>SOURCES OF FUND</u></b>					
Own Contribution	1.94	-			
Reserve & Surplus	4.54	7.20	9.36	12.06	13.77
Depriciation & Exp. W/off	1.98	1.71	1.48	1.28	1.10
Increase In Cash Credit	4.00				
Increase In Term Loan	13.50	-	-	-	-
Increase in Creditors	0.70	0.10	0.07	0.07	0.07
<b>TOTAL :</b>	<b>26.65</b>	<b>9.00</b>	<b>10.90</b>	<b>13.41</b>	<b>14.94</b>
<b><u>APPLICATION OF FUND</u></b>					
Increase in Fixed Assets	15.00	-	-	-	-
Increase in Stock	3.01	0.43	0.37	0.38	0.39
Increase in Debtors	2.58	0.45	0.39	0.42	0.44
Repayment of Term Loan	1.50	3.00	3.00	3.00	3.00
Taxation	-	1.08	1.87	3.02	4.13
Drawings	3.00	4.00	5.00	6.00	6.50
<b>TOTAL :</b>	<b>25.09</b>	<b>8.96</b>	<b>10.63</b>	<b>12.81</b>	<b>14.46</b>
Opening Cash & Bank Balance	-	1.56	1.60	1.87	2.47
Add : Surplus	1.56	0.04	0.27	0.60	0.48
Closing Cash & Bank Balance	<b>1.56</b>	<b>1.60</b>	<b>1.87</b>	<b>2.47</b>	<b>2.95</b>

<u>COMPUTATION OF MAKING OF PAPER STRAW</u>			
<b>Item to be Manufactured Paper Straw</b>			
Manufacturing Capacity per day		720	Packets
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		2,16,000	Pcs
Total Production per Annum		2,16,000	Packet of 100 each
Year		Capacity	PAPER STRAW
		Utilisation	
I		55%	1,18,800.00
II		60%	1,29,600.00
III		65%	1,40,400.00
IV		70%	1,51,200.00
V		75%	1,62,000.00

<u>COMPUTATION OF RAW MATERIAL</u>					
Item Name		Quantity of Raw Material	Unit	Unit Rate	Total CostPer Annum (100%)
Food Grade Paper		30,000.00	Kg	150.00	45,00,000.00
Food grade gum powder		4,500.00	Kg	180.00	8,10,000.00
Packing material					1,20,000.00
					-
Total					<b>54,30,000.00</b>
Total Raw material in Rs lacs					54.30

Raw Material Consumed	Capacity		Amount (Rs.)		
	Utilisation				
I	55%		29.87		
II	60%		34.21	5% Increase in Cost	
III	65%		37.06	5% Increase in Cost	
IV	70%		39.91	5% Increase in Cost	
V	75%		42.76	5% Increase in Cost	

<b><u>COMPUTATION OF SALE</u></b>					
Particulars	I	II	III	IV	V
Op Stock	-	3,960.00	4,320.00	4,680.00	5,040.00
Production	1,18,800.00	1,29,600.00	1,40,400.00	1,51,200.00	1,62,000.00
	1,18,800.00	1,33,560.00	1,44,720.00	1,55,880.00	1,67,040.00
Less : Closing Stock(10 Days)	3,960.00	4,320.00	4,680.00	5,040.00	5,400.00
Net Sale	1,14,840.00	1,29,240.00	1,40,040.00	1,50,840.00	1,61,640.00
Sale Price per Packet	45.00	47.00	49.00	51.00	53.00
<b>Sale (in Lacs)</b>	<b>51.68</b>	<b>60.74</b>	<b>68.62</b>	<b>76.93</b>	<b>85.67</b>

<u>COMPUTATION OF CLOSING STOCK &amp; WORKING CAPITAL</u>					
PARTICULARS	I	II	III	IV	V
<u>Finished Goods</u>					
(10 Days requirement)	1.51	1.73	1.95	2.18	2.43
<u>Raw Material</u>					
(15 Days requirement)	1.49	1.71	1.85	2.00	2.14
<b>Closing Stock</b>	<b>3.01</b>	<b>3.44</b>	<b>3.80</b>	<b>4.18</b>	<b>4.57</b>

<u>COMPUTATION OF WORKING CAPITAL REQUIREMENT</u>			
Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	3.01		
Less:			
Sundry Creditors	0.70		
<b>Paid Stock</b>	<b>2.31</b>	<b>0.23</b>	<b>2.08</b>
Sundry Debtors	2.58	0.26	2.33
<b>Working Capital Requirement</b>			<b>4.41</b>
<b>Margin</b>			<b>0.49</b>
<b>MPBF</b>			<b>4.41</b>
<b>Working Capital Demand</b>			<b>4.00</b>

<b><u>BREAK UP OF LABOUR</u></b>				
Particulars		Wages	No of	Total
		Per Month	Employees	Salary
Supervisor		16,000.00	1	16,000.00
Plant Operator		12,000.00	1	12,000.00
Unskilled Worker		10,000.00	1	10,000.00
Helper		8,000.00	1	8,000.00
Security Guard		6,000.00	1	6,000.00
				52,000.00
Add: 5% Fringe Benefit				2,600.00
Total Labour Cost Per Month				54,600.00
Total Labour Cost for the year ( In Rs. Lakhs)			5	6.55

<b><u>BREAK UP OF SALARY</u></b>				
Particulars		Salary	No of	Total
		Per Month	Employees	Salary
Manager		12,000.00	1	12,000.00
Accountant cum store keeper		10,000.00	1	10,000.00
Sales		8,000.00	1	8,000.00
Total Salary Per Month				30,000.00
Add: 5% Fringe Benefit				1,500.00
Total Salary for the month				31,500.00
Total Salary for the year ( In Rs. Lakhs)			3	3.78

<b>COMPUTATION OF DEPRECIATION</b>					
Description	Land	Building/shed	Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased		-	-	-
Addition	-	4.00	9.50	1.50	15.00
	-	4.00	9.50	1.50	15.00
		-	-	-	
TOTAL		4.00	9.50	1.50	15.00
Less : Depreciation	-	0.40	1.43	0.15	1.98
WDV at end of Ist year	-	3.60	8.08	1.35	13.03
Additions During The Year	-	-	-	-	-
	-	3.60	8.08	1.35	13.03
Less : Depreciation	-	0.36	1.21	0.14	1.71
WDV at end of IIInd Year	-	3.24	6.86	1.22	11.32
Additions During The Year	-	-	-	-	-
	-	3.24	6.86	1.22	11.32
Less : Depreciation	-	0.32	1.03	0.12	1.48
WDV at end of IIIrd year	-	2.92	5.83	1.09	9.84
Additions During The Year	-	-	-	-	-
	-	2.92	5.83	1.09	9.84
Less : Depreciation	-	0.29	0.88	0.11	1.28
WDV at end of IV year	-	2.62	4.96	0.98	8.57
Additions During The Year	-	-	-	-	-
	-	2.62	4.96	0.98	8.57
Less : Depreciation	-	0.26	0.74	0.10	1.10
WDV at end of Vth year	-	2.36	4.22	0.89	7.46



REPAYMENT SCHEDULE OF TERM LOAN						11.0%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	13.50	13.50	0.37	-	13.50
	IInd Quarter	13.50	-	13.50	0.37	-	13.50
	IIIRD Quarter	13.50	-	13.50	0.37	0.75	12.75
	Ivth Quarter	12.75	-	12.75	0.35	0.75	12.00
					1.46	1.50	
II	Opening Balance						
	Ist Quarter	12.00	-	12.00	0.33	0.75	11.25
	IInd Quarter	11.25	-	11.25	0.31	0.75	10.50
	IIIRD Quarter	10.50	-	10.50	0.29	0.75	9.75
	Ivth Quarter	9.75		9.75	0.27	0.75	9.00
					1.20	3.00	
III	Opening Balance						
	Ist Quarter	9.00	-	9.00	0.25	0.75	8.25
	IInd Quarter	8.25	-	8.25	0.23	0.75	7.50
	IIIRD Quarter	7.50	-	7.50	0.21	0.75	6.75
	Ivth Quarter	6.75		6.75	0.19	0.75	6.00
					0.87	3.00	
IV	Opening Balance						
	Ist Quarter	6.00	-	6.00	0.17	0.75	5.25
	IInd Quarter	5.25	-	5.25	0.14	0.75	4.50
	IIIRD Quarter	4.50	-	4.50	0.12	0.75	3.75
	Ivth Quarter	3.75		3.75	0.10	0.75	3.00
					0.54	3.00	
V	Opening Balance						
	Ist Quarter	3.00	-	3.00	0.08	0.75	2.25
	IInd Quarter	2.25	-	2.25	0.06	0.75	1.50
	IIIRD Quarter	1.50	-	1.50	0.04	0.75	0.75
	Ivth Quarter	0.75		0.75	0.02	0.75	-
					0.21	3.00	

Door to Door Period            60 Months  
Moratorium Period                6 Months  
Repayment Period                54 Months

<b><u>CALCULATION OF D.S.C.R</u></b>					
<b>PARTICULARS</b>	<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>
<b><u>CASH ACCRUALS</u></b>	6.51	7.82	8.96	10.32	10.74
Interest on Term Loan	1.46	1.20	0.87	0.54	0.21
Total	7.98	9.02	9.83	10.86	10.95
<b><u>REPAYMENT</u></b>					
Repayment of Term Loan	1.50	3.00	3.00	3.00	3.00
Interest on Term Loan	1.46	1.20	0.87	0.54	0.21
Total	2.96	4.20	3.87	3.54	3.21
DEBT SERVICE COVERAGE RATIO	2.69	2.15	2.54	3.07	3.41
<b><u>AVERAGE D.S.C.R.</u></b>			2.74		

<b>COMPUTATION OF ELECTRICITY</b>				
<b>(A) POWER CONNECTION</b>				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	30	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
<b>Electricity Charges</b>				4,02,840.00
Add : Minimim Charges (@ 10%)				
<b>(B) DG set</b>				
No. of Working Days			300	days
No of Working Hours			0.3	Hour per day
Total no of Hour			90	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			720	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			0.47	
Add : Lube Cost @15%			0.07	
Total			0.54	
Total cost of Power & Fuel at 100%				4.57
<b>Year</b>		<b>Capacity</b>		<b>Amount</b>
				<b>(in Lacs)</b>
I		55%		2.51
II		60%		2.74
III		65%		2.97
IV		70%		3.20
V		75%		3.42

### **DISCLAIMER**

The views expressed in this Project Report are advisory in nature. UP MSME assume no financial liability to anyone using the content for any purpose. All the materials and content contained in Project report is for educational purpose and reflect the views of the industry which are drawn from various research material sources from internet, experts, suppliers and various other sources. The actual cost of the project or industry will have to be taken on case to case basis considering specific requirement of the project, capacity and type of plant and other specific factors/cost directly related to the implementation of project. It is intended for general guidance only and must not be considered a substitute for a competent legal advice provided by a licensed industry professional. UP MSME hereby disclaims any and all liability to any party for any direct, indirect, implied, punitive, special, incidental or other consequential damages arising directly or indirectly from any use of the Project Report Content, which is provided as is, and without warranties.