PROJECT REPORT

Of

GARBAGE BAGS

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Garbage bags 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**	XXXXXXXX	
2	**Firm Name**	XXXXXXXX	
3	**Registered Address**	XXXXXXXX	
4	**Nature of Activity**	XXXXXXXX	
5	**Category of Applicant**	XXXXXXXX	
6	**Location of Unit**	XXXXXXXX	
7	**Cost of Project**	17.69	Rs. In Lakhs
8	**Means of Finance**		
i)	**Own Contribution**	1.77	Rs. In Lakhs
ii)	**Term Loan**	11.97	Rs. In Lakhs
iii)	**Working Capital**	3.95	Rs. In Lakhs
9	**Debt Service Coverage Ratio**	3.43	
10	**Break Even Point**	43%	
11	**Power Requiremnet**	30	KW
12	**Employment**	10	Persons
13	**Major Raw Materials**	Polyethylene pellets, additives and packaging material	

14 Details of Cost of Project & Means of Finance

Cost of Project **Amount in Lacs**

Particulars	**Amount**
Land and building	Owned/Leased
Plant & Machinery	11.80
Furniture & Fixture	-
Other Misc Assets	1.50
Working Capital Requirement	4.39
Total	**17.69**

Means of Finance

Particulars	**Amount**
Own Contribution	1.77
Term Loan	11.97
Working capital Loan	3.95
Total	**17.69**

1. INTRODUCTION

A garbage bag is a material used for the assortment, storage, removal, and handling of waste or garbage. Plastic garbage bags are light in weight and are especially useful for untidy or wet rubbish, as is usually the situation with food waste, and are likewise useful for wrapping up trash to minimize odor. Garbage bags are regularly utilized for lining litter or waste compartments or receptacles. Garbage bags are utilized in all homes and business organizations; whether throwing off kitchen squanders or used paper, everything gets put away in garbage bags, which are subsequently by the waste management department. Garbage bags are generally available in black colors. Garbage bags are generally made of low-density polyethylene that is delicate, adaptable, waterproof, and airtight. High-density polyethylene can be utilized to make heavy-duty bags. Garbage bags are also known as trash bags, refuse sacks, trash can liners, and bin liners, they serve a very important purpose in keeping our garbage in one place. This serves to keep the container sanitary by avoiding container contact with the garbage. After the bag in the container is filled with litter, the bag can be pulled out by its edges, closed, and tied with minimal contact with the

waste matter. Garbage bags are mostly found in black, clear, or white colors, but garbage bags are available in several colors. Some people use different colors to differentiate recyclable garbage from non-recyclable trash. Many people choose to use clear trash bags to help them identify any object in the bag that may need to be recycled or saved instead of discarded. Other people and companies choose to use black garbage bags for the opposite reason people use clear bags. They do not want people to see the contents of the bag. Some color garbage bags can likewise assist with detouring UV rays from breaking down the contents of the bag. While there are exemptions for this, garbage bags normally come in small (0-9 gallons), medium (10-29 gallons), and large sizes (30+ gallons). The most well-known method for producing garbage bags is blown film extrusion, also called the tubular film process.

2. PRODUCT DESCRIPTION

2.1 PRODUCT USES

Garbage bags are widely used in the retail, industrial, and institutional segments. A garbage bag is a material utilized for the collection, storage, disposal, and handling of the garbage.

2.2 MANUFACTURING PROCESS

This process can be broken down into the following steps-

Raw material procurement

Production Process

Testing

Raw Material Procurement

To ensure complete quality control, all raw materials are checked strictly as per established quality standards and requirements. Individual supplier assessment and supplier rating are done depending upon the rejection levels at the incoming quality control stage. After quality control, sorting of raw material will be done. In the sorting procedure, the different types of materials will be sorted out and they will be stored in a neat storage area.

Production Process

1. Extrusion/Raw material processing: Polyethylene pellets are put in big hoppers. The hopper feeds the resin into the extruder. By this machine, polythene granules are melted.

   They are melted at 200 degrees and pressed. Once the pellets are heated and thoroughly

mixed by the extruder the remaining raw plastic mixture is then pushed through a die. A die, or a special tool to cut or shape material, forms the plastic into a ring. The molten poly flows evenly up and over the circular die. As the molten poly emerges from the die, the machine operator: a. Grabs it wearing protective gloves. b. Pinches the molten poly together. c. Ties a rope to the top of the molten poly. The rope leads upward to a pulley system. d. Pulls the other end of the rope to move the molten poly upwards. At the same time, the air ring blows cool air upwards, which solidifies the molten poly. The ring is then blown into a bubble.

2. Blowing: The polyethylene is blown to form a bubble or balloon. Plastic balloons are made with help of air and dye. As the tubular shape moves up, the machine operator inserts and air gun through the poly film to blow in additional air. This step is repeated until the diameter of the tubular poly film reaches the required bag size.
3. Film-forming: The plastic tube gradually cools down. It is several hundred feet long, and it has a minimum thickness of two ten-thousands of an inch. A machine compresses the bubble to flatten it out. It becomes a thin film and is divided into multiple webs. The film will be folded or rolled and takes the form of a plastic roll. The film is fed to a bag-making machine continuously and momentarily stops it at the correct position with the aid of optical sensors for simultaneous sealing and cutting operations.
4. Cutting: It is then cut out into bags of various sizes. For roll cutting; a cutting machine is used. The roll is delivered to the cutting blades sequentially through the roller sensor and during the cutting process; one side of the bag was sealed automatically. The bottoms of the bags are separated. At this point, printing can also be done by the printing machine.
5. Packing: Bags are folded and stacked. Bags will be folded manually and packed for shipping.

Testing

Quality Control: Strength, Density can be tested. The QC time of the bag is proportional tothe area. Additionally, extra time is required when a defective bag is to be removed from the bundle. It is also proportional to the area of the bag since the difficulty in handling increases as the size of the bag increases.

3 PROJECT COMPONENTS

3.1 Land & Building

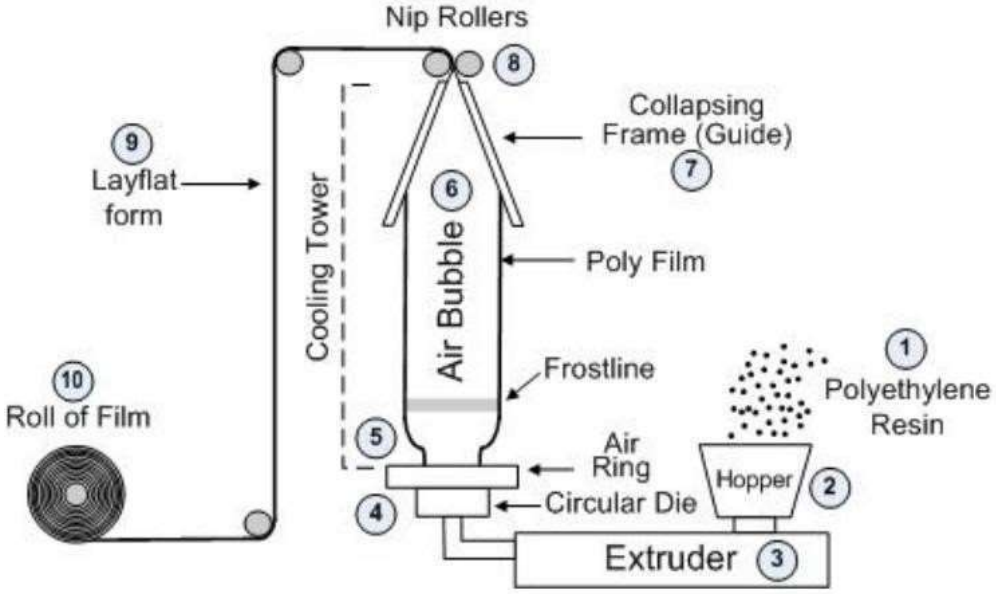
The land required for this manufacturing unit will be approx. around 3000 square feet. Land Purchase and Building Civil Work Cost have not been considered as part of the cost of project. It is expected that the premises will be on rental and approximate rentals assumed of the same will be Rs.30,000 per month.

- Workshop Area- This area includes the setup and foundation space for all equipment's, work floor area, etc. Total workshop area is approx.1500 Sqft.
- Inventory Area- This area includes the storage space for all the raw materials and finished goods. Total inventory area is approx. 1000 Sqft.
- Office Area – This space includes staff working region, their accommodation space. Total workshop area is approx. 300 Sqft. This may be considered above the ground floor.
- Parking Space, Electric Mounting Space, and Others. This could be approx. 200 Sqft.

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

3.2 Plant & Machinery

- **Automatic Garbage Bag Making Machine:** The automatic garbage bag-making machine is used for garbage bags production. This automatic machine has features such as an extruder, blower, gusset, pressing, rolling, cutting and sealing machine, etc. An extruder is a pump for very thick fluids. The extruder contains a rotating screw that mixes and melts the material. Frostline (or freeze line) is The point where molten polyethylene solidifies into a film. The gusset is an Indentation in the sides of plastic bags that allow the bag to lay flat when stored but expand when opened. The plastic pellets will be fed to an extruder machine for melting and blowing will be done by the blower. Film pressing and rolling aredone by a pressing and rolling machine. The final bag cutting and sealing will be done bya cutting and sealing machine.



- **Testing Equipment's:** Testing equipment is used for quality checking of products. Here tensile strength, density, color, etc. will be tested.

Machine	Quantity	Price
Automatic Garbage Bag Making Machine	1	10,00,000
Testing Equipment's	1	1,00,000
Miscellaneous	1	80,000
TOTAL		**11,80,000**

Note: Total Machinery cost shall be Rs 11.80 lakhs (Approx.) excluding GST and Transportation Cost.

4 LICENSE & APPROVALS

Basic registration required in this project:

- MSME Udyam registration
- GST registration
- NOC for fire safety board and from Pollution Control Board
- Trade License
- Factory License (Optional)
- BIS certification
- Choice of a Brand Name of the product and secure the name with Trademark if required.

Projected Profitability

PROJECTED PROFITABILITY STATEMENT					(in Lacs)
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
Capacity Utilisation %	**60%**	**65%**	**70%**	**75%**	**80%**
SALES					
Gross Sale					
Garbage Bag	105.48	122.63	138.37	156.36	175.42
Total	**105.48**	**122.63**	**138.37**	**156.36**	**175.42**
COST OF SALES					
Raw Material Consumed	75.60	86.58	98.28	110.70	123.84
Electricity Expenses	3.46	3.74	4.03	4.32	4.61
Depreciation	2.00	1.70	1.44	1.23	1.04
Wages & labour	8.16	8.98	9.87	10.86	11.95
Repair & maintenance	1.58	1.84	2.08	2.35	2.63
Packaging	0.53	0.61	0.69	0.78	0.88
Cost of Production	91.32	103.45	116.39	130.23	144.94
Add: Opening Stock	-	2.13	2.41	2.72	3.04
Less: Closing Stock	2.13	2.41	2.72	3.04	3.38
Cost of Sales	89.19	103.17	116.09	129.91	144.60
GROSS PROFIT	**16.29**	**19.46**	**22.28**	**26.45**	**30.82**
	15.44%	**15.87%**	**16.10%**	**16.91%**	**17.57%**
Salary to Staff	4.92	5.17	5.79	6.65	7.19
Interest on Term Loan	1.18	1.04	0.74	0.45	0.16
Interest on working Capital	0.43	0.43	0.43	0.43	0.43
Rent	3.60	4.14	4.76	5.48	6.30
Selling & Administrative Exp.	1.05	1.84	2.08	2.35	2.63
TOTAL	**11.19**	**12.62**	**13.80**	**15.36**	**16.71**
NET PROFIT	5.10	6.85	8.48	11.09	14.12
	4.84%	**5.58%**	**6.13%**	**7.09%**	**8.05%**
Taxation	0.02	0.38	0.72	0.65	1.60
PROFIT (After Tax)	5.08	6.46	7.75	10.44	12.52

Projected Balance Sheet

PROJECTED BALANCE SHEET					(in Lacs)
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
Liabilities					
Capital					
Opening balance		3.35	5.12	7.37	9.60
Add:- Own Capital	1.77				
Add:- Retained Profit	5.08	6.46	7.75	10.44	12.52
Less:- Drawings	3.50	4.70	5.50	8.20	9.85
Closing Balance	**3.35**	**5.12**	**7.37**	**9.60**	**12.27**
Term Loan	10.64	7.98	5.32	2.66	-
Working Capital Limit	3.95	3.95	3.95	3.95	3.95
Sundry Creditors	2.52	2.89	3.28	3.69	4.13
Provisions & Other Liability	0.40	0.48	0.58	0.80	0.96
TOTAL :	**20.86**	**20.41**	**20.49**	**20.70**	**21.31**
Assets					
Fixed Assets (Gross)	13.30	13.30	13.30	13.30	13.30
Gross Dep.	2.00	3.69	5.13	6.36	7.40
Net Fixed Assets	**11.31**	**9.61**	**8.17**	**6.94**	**5.90**
Current Assets					
Sundry Debtors	3.52	4.09	4.61	5.21	5.85
Stock in Hand	3.39	3.86	4.35	4.88	5.45
Cash and Bank	0.15	0.16	0.15	0.16	0.11
Loans & Advances /Other Current Assets	2.50	2.70	3.20	3.50	4.00
TOTAL :	**20.86**	**20.41**	**20.49**	**20.70**	**21.31**

Projected Cash Flow Statement

PROJECTED CASH FLOW STATEMENT					(in Lacs)
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
SOURCES OF FUND					
Own Margin	1.77				
Net Profit	5.10	6.85	8.48	11.09	14.12
Depreciation & Exp. W/off	2.00	1.70	1.44	1.23	1.04
Increase in Cash Credit	3.95	-	-	-	-
Increase In Term Loan	11.97	-	-	-	-
Increase in Creditors	2.52	0.37	0.39	0.41	0.44
Increase in Provisions & Oth labilities	0.40	0.08	0.10	0.22	0.16
	-				
TOTAL :	**27.71**	**8.99**	**10.40**	**12.95**	**15.75**
APPLICATION OF FUND					
Increase in Fixed Assets	13.30				
Increase in Stock	3.39	0.47	0.50	0.53	0.56
Increase in Debtors	3.52	0.57	0.52	0.60	0.64
Repayment of Term Loan	1.33	2.66	2.66	2.66	2.66
Loans & Advances /Other Current Assets	2.50	0.20	0.50	0.30	0.50
Drawings	3.50	4.70	5.50	8.20	9.85
Taxation	0.02	0.38	0.72	0.65	1.60
TOTAL :	**27.56**	**8.98**	**10.40**	**12.94**	**15.80**
Opening Cash & Bank Balance	-	0.15	0.16	0.15	0.16
Add : Surplus	0.15	0.01	(0.00)	0.01	(0.05)
Closing Cash & Bank Balance	**0.15**	**0.16**	**0.15**	**0.16**	**0.11**

DSCR

CALCULATION OF D.S.C.R					
PARTICULARS	**1st year**	**2nd year**	**3rd year**	**4th year**	**5th year**
CASH ACCRUALS	7.08	8.16	9.19	11.66	13.56
Interest on Term Loan	1.18	1.04	0.74	0.45	0.16
Total	8.25	9.20	9.94	12.11	13.72
REPAYMENT					
Instalment of Term Loan	1.33	2.66	2.66	2.66	2.66
Interest on Term Loan	1.18	1.04	0.74	0.45	0.16
Total	2.51	3.70	3.40	3.11	2.82
DEBT SERVICE COVERAGE RATIO	**3.29**	**2.49**	**2.92**	**3.89**	**4.87**
AVERAGE D.S.C.R.					**3.43**

Repayment schedule

REPAYMENT SCHEDULE OF TERM LOAN							
					Interest		11.00%
Year	**Particulars**	**Amount**	**Addition**	**Total**	**Interest**	**Repayment**	**Closing Balance**
1st	Opening Balance						
	1st month	-	11.97	11.97	-	-	11.97
	2nd month	11.97	-	11.97	0.11	-	11.97
	3rd month	11.97	-	11.97	0.11	-	11.97
	4th month	11.97	-	11.97	0.11		11.97
	5th month	11.97	-	11.97	0.11		11.97
	6th month	11.97	-	11.97	0.11		11.97
	7th month	11.97	-	11.97	0.11	0.22	11.75
	8th month	11.75	-	11.75	0.11	0.22	11.53
	9th month	11.53	-	11.53	0.11	0.22	11.31
	10th month	11.31	-	11.31	0.10	0.22	11.08
	11th month	11.08	-	11.08	0.10	0.22	10.86
	12th month	10.86	-	10.86	0.10	0.22	10.64
					1.18	**1.33**	
2nd	Opening Balance						
	1st month	10.64	-	10.64	0.10	0.22	10.42
	2nd month	10.42	-	10.42	0.10	0.22	10.20
	3rd month	10.20	-	10.20	0.09	0.22	9.97
	4th month	9.97	-	9.97	0.09	0.22	9.75
	5th month	9.75	-	9.75	0.09	0.22	9.53
	6th month	9.53	-	9.53	0.09	0.22	9.31

	7th month	9.31	-	9.31	0.09	0.22	9.09
	8th month	9.09	-	9.09	0.08	0.22	8.87
	9th month	8.87	-	8.87	0.08	0.22	8.64
	10th month	8.64	-	8.64	0.08	0.22	8.42
	11th month	8.42	-	8.42	0.08	0.22	8.20
	12th month	8.20	-	8.20	0.08	0.22	7.98
					1.04	**2.66**	
3rd	Opening Balance						
	1st month	7.98	-	7.98	0.07	0.22	7.76
	2nd month	7.76	-	7.76	0.07	0.22	7.54
	3rd month	7.54	-	7.54	0.07	0.22	7.31
	4th month	7.31	-	7.31	0.07	0.22	7.09
	5th month	7.09	-	7.09	0.07	0.22	6.87
	6th month	6.87	-	6.87	0.06	0.22	6.65
	7th month	6.65	-	6.65	0.06	0.22	6.43
	8th month	6.43	-	6.43	0.06	0.22	6.21
	9th month	6.21	-	6.21	0.06	0.22	5.98
	10th month	5.98	-	5.98	0.05	0.22	5.76
	11th month	5.76	-	5.76	0.05	0.22	5.54
	12th month	5.54	-	5.54	0.05	0.22	5.32
					0.74	**2.66**	
4th	Opening Balance						
	1st month	5.32	-	5.32	0.05	0.22	5.10
	2nd month	5.10	-	5.10	0.05	0.22	4.88
	3rd month	4.88	-	4.88	0.04	0.22	4.65

	4th month	4.65	-	4.65	0.04	0.22	4.43
	5th month	4.43	-	4.43	0.04	0.22	4.21
	6th month	4.21	-	4.21	0.04	0.22	3.99
	7th month	3.99	-	3.99	0.04	0.22	3.77
	8th month	3.77	-	3.77	0.03	0.22	3.55
	9th month	3.55	-	3.55	0.03	0.22	3.32
	10th month	3.32	-	3.32	0.03	0.22	3.10
	11th month	3.10	-	3.10	0.03	0.22	2.88
	12th month	2.88	-	2.88	0.03	0.22	2.66
					0.45	**2.66**	
5th	Opening Balance						
	1st month	2.66	-	2.66	0.02	0.22	2.44
	2nd month	2.44	-	2.44	0.02	0.22	2.22
	3rd month	2.22	-	2.22	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	1.11
	8th month	1.11	-	1.11	0.01	0.22	0.89
	9th month	0.89	-	0.89	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	**2.66**	
	DOOR TO DOOR	60	MONTHS				
	MORATORIUM PERIOD	6	MONTHS				
	REPAYMENT PERIOD	54	MONTHS				

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