



Pre-feasibility Study

NON-WOVEN BAG MANUFACTURING UNIT

September 2021

“The figures and financial projections are approximate due to fluctuations in exchange rates, energy costs, and fuel prices etc. Users are advised to focus on understanding essential elements such as production processes and capacities, space, machinery, human resources, and raw material etc. requirements. Project investment, operating costs, and revenues can change daily. For accurate financial calculations, utilize financial calculators on SMEDA’s website and consult financial experts to stay current with market conditions.”

Small and Medium Enterprises Development Authority
Ministry of Industries and Production
Government of Pakistan

Table of Contents

1	DISCLAIMER	3
2	EXECUTIVE SUMMARY.....	4
3	INTRODUCTION TO SMEDA.....	5
4	PURPOSE OF THE DOCUMENT.....	5
5	BRIEF DESCRIPTION OF PROJECT & PRODUCT	6
6	PRODUCTION PROCESS.....	7
6.1	NON-WOVEN BAGS MANUFACTURING FLOW:	7
6.1.2	<i>Roll manufacturing.....</i>	8
6.1.3	<i>Printing.....</i>	8
6.1.4	<i>Sealing and cutting.....</i>	8
6.1.6	<i>Bailing.....</i>	8
6.1.7	<i>weightage of finished goods.....</i>	9
7	INSTALLED AND OPERATIONAL CAPACITIES	9
8	CRITICAL FACTORS	9
9	GEOGRAPHICAL POTENTIAL FOR INVESTMENT	10
10	POTENTIAL TARGET CUSTOMERS / MARKETS	10
11	PROJECT COST SUMMARY	10
11.1	PROJECT ECONOMICS.....	10
11.2	PROJECT FINANCING.....	11
11.3	PROJECT COST	11
11.4	SPACE REQUIREMENT.....	12
11.5	MACHINERY & EQUIPMENT REQUIREMENT	12
11.6	FURNITURE & FIXTURES REQUIREMENT.....	12
11.7	OFFICE EQUIPMENT REQUIREMENT.....	13
11.8	HUMAN RESOURCE REQUIREMENT.	13
11.9	UTILITIES AND OTHER COSTS.	14
11.10	REVENUE GENERATION.....	14
12	CONTACT DETAILS	14
12.1	MACHINERY SUPPLIERS.....	15
	<i>zw1@china-zhengwei.com.....</i>	15
13	USEFUL WEB LINKS	16
14	ANNEXURES.....	17
14.1	INCOME STATEMENT	17
14.2	BALANCE SHEET	18
14.3	CASH FLOW STATEMENT.....	19
15	KEY ASSUMPTIONS.....	20
15.1	OPERATING COST ASSUMPTIONS.....	20
15.2	PRODUCTION COST ASSUMPTIONS.....	20
15.3	REVENUE ASSUMPTIONS.....	20
15.4	FINANCIAL ASSUMPTIONS	20

1 DISCLAIMER

This information memorandum is to introduce the subject matter and provide a general idea and information on the said matter. Although, the material included in this document is based on data/information gathered from various reliable sources; however, it is based upon certain assumptions, which may differ from case to case. The information has been provided on as is where is basis without any warranties or assertions as to the correctness or soundness thereof. Although, due care and diligence has been taken to compile this document, the contained information may vary due to any change in any of the concerned factors, and the actual results may differ substantially from the presented information. SMEDA, its employees or agents do not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. The contained information does not preclude any further professional advice. The prospective user of this memorandum is encouraged to carry out additional diligence and gather any information which is necessary for making an informed decision; including taking professional advice from a qualified consultant/technical expert before taking any decision to act upon the information.

For more information on services offered by SMEDA, please contact our website: www.smeda.org.pk

Document Control

Document No.	PREF-NO. 01
Revision	
Prepared by	SMEDA-Balochistan
Preparation Date	September 2021
For information	shakoor@smeda.org.pk

2 EXECUTIVE SUMMARY

The proposed project is about establishing a **Non-Woven Bag Manufacturing Unit**. The subject project is strongly recommended to be established in the adjoining of the major cities or urban areas. The prevalence of such facility would add economic benefits in the country and would number of direct and indirect employment. Moreover, features like low cost & less complexity associated with installation of **Non-Woven Bag Manufacturing Unit** make it more attractive project. Currently the project is being designed / proposed for major cities with potential industrial FMCG growth but the same can be proposed for other cities which can fulfill input and logistic requirements of the project.

Initially project focus would be on customers from neighboring communities, whereas at maturity domestic market would be preferred. The main feature of the project would include hygienically produced non-plastic bags for household carry and other products, processed according to international quality and standards.

The **Non-Woven Bag Manufacturing Unit** has the capacity of producing approximately **1,622,400 units** annually and will be operational for **330 days** a year and **8 hours** in 1 shift a day. Initially the Non-Woven bag making unit will be operated at **65%** of capital utilization and will increase it by **5%** annually. The Maximum capacity utilization will be **95%**.

The total project investment is **Rs. 30,400,104/-** with an Internal Rate of Return (IRR) of **35%** and Net Present Value (NPV) of **41,651,772/-**. The total project investment would be paid back in **4.03** years.

3 INTRODUCTION TO SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in employment generation and value addition to the national income, through development of the SME sector, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify policy, access to finance, business development services, strategic initiatives and institutional collaboration and networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need based capacity building programs of different types in addition to business guidance through help desk services.

4 PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility may form the basis of an important investment decision and in order to serve this objective, the document/study covers various aspects of project concept development, start-up, and production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors In **Non-Woven Bag Manufacturing Unit**. by providing them with a general understanding of the business with the intention of supporting potential investors in crucial investment decisions.

The need to come up with pre-feasibility reports for undocumented or minimally documented sectors attains greater imminence as the research that precedes such reports reveal certain thumb rules; best practices developed by existing enterprises by trial and error, and certain industrial norms that become a guiding source regarding various aspects of business set-up and its successful management.

Apart from carefully studying the whole document one must consider critical aspects provided later on, which form basis of any Investment Decision.

5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

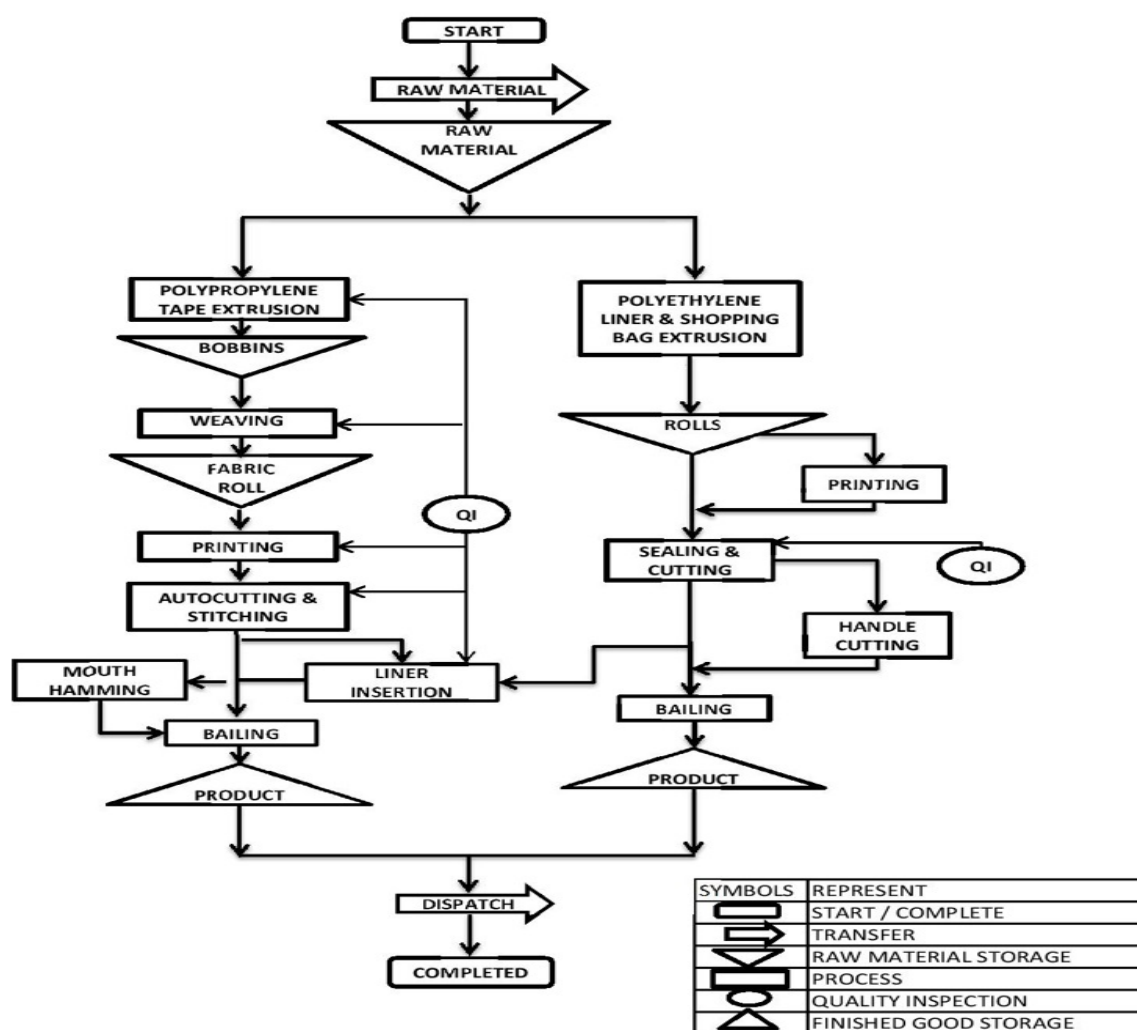
Following key parameters must be addressed as per pre-feasibility study under preparation

- **Technology:** This proposed unit with modern production plant, from fabric rolls, Waving, Printing, Auto Cutting and Bailing and a generator which will complete the line of Non-Woven Bag unit.
- **Location:** The subject project is strongly recommended to be established in the adjoining of the major cities or urban areas with high potentials of FMCG production unit available.
- **Product:** Keeping in view the market demand and characteristics “only properly slitted and well protected packed product” is recommended to be the final product of the proposed prefeasibility.
- **Target Market:** The target customers for the proposed product would primarily be markets area and FMCGs Companies, small production units & individuals having unique selling product that they want to be properly named and packaged.
- **Employment Generation:** The proposed project will provide direct employment to 16 people.

6 PRODUCTION PROCESS

The cycle of processing and manufacturing of Non-Woven bags are stated below mainly subjected to machine/method used particular to the desired output product. Following is the process flow of Manufacturing Non-Woven bags:

6.1 Non-woven bags manufacturing flow:



However, a brief summary of the general operations in any particular production line can be illustrated under the following headings:

6.1.1 Raw Material.

The Raw material used for Non-woven bags are Polypropylene Fiber Polyethylene & Polyester, and it is soft and air-permeable. Non-woven bags are made of Non-Biodegradable Plastic. They are prepared on a machine by spreading rolls of plastic.

6.1.2 Roll manufacturing.

Roll manufacturing is the key aspect of the process and is one of the basic raw ingredients while making Non-woven bags, though complete roll of fabric are also available in market as per demand of the customer.

6.1.3 Printing.

After completing rolls of fabric the next step is to print your monogram or design on the roll.

6.1.4 Sealing and cutting.

Once the procedure of printing is completed, take the printing roll to Non-woven sealing and cutting machine as automatic version of these machines are available so you have to just adjust size of the bag and machine will start sealing and cutting of the bags.

6.1.5 Handle cutting.

Another machine which is used in making Non-woven Bags are handle cutting machine that is also an automatic machine, which make handles of the bags as per commended size.

6.1.6 Bailing.

The last part of the process is bailing the handles and bags with each other it can be do manually but we are recommending having a stitching machine for that too, that will increase production and reduce cost.

6.1.7 weightage of finished goods.

Take the weight of finished product make an invoice according to that weight.

6.1.8 Packaging & Dispatching.

Properly pack the finished product in standard bags and dispatch it to the customer or forward it to finished product warehouse

6.1.9 Machine Description.

ZW-A8 Bag Making Machine, A8 High-Speed Non-Woven Three-Dimensional Bag Making Machine. This Equipment Adopts New Manufacturing Technology with Design Concept and Was Successfully Developed In 2010. After Years Of Continuous Technical Improvement and Perfection, It Has Gradually Realized Non-Woven Rolls From Ironing, Slicing, and Making. The Whole Machine Adopts Computer Program Programming Control, Which Replaces The Tedious Manual Processing Flow, and Improves The Production Efficiency And Product Quality. The Non-Woven Bags and Non-Woven Bags Produced By This Equipment Are Widely Used In The Production Of High-End Non-Woven Gift Box Bags, Shoe Box Bags, Food Packaging Bags, Etc.

7 INSTALLED AND OPERATIONAL CAPACITIES

The **Non-Woven Bag Manufacturing Unit**. has the capacity of producing approximately 1,622,400 units annually and will be operational for 330 days a year and 8 hours a day in 1 shifts. Initially the **Non-Woven Bag Manufacturing Unit**. will be operated at 65% of capital utilization and will increase it by 5% annually. The Maximum capacity utilization will be 95%.

8 CRITICAL FACTORS

Selection of proper location, equipment and staff would be required to run project successfully. Utmost care should be taken while selecting raw material sheets should be made of Virgin **Polyethylene & Polyester fabric** or should be from a good vender. Only the best quality **Polyethylene & Polyester fabric** rolls should be used. Continuous efforts should be made for up-gradation of the processing techniques. To attract large number of customers the product must be processed on quality standards. Government rule and policies availability of skilled workers Natural Disasters High competition.

9 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Now a day's packaging is become one of the core element for every product it is an important part for developing a brand while number of FMCGS are focusing in gaining more and more market share for them self in this sense packaging has become very important and keen aspect to achieve companies desire.

10 POTENTIAL TARGET CUSTOMERS / MARKETS

The target customers for the proposed product would primarily be FMCG companies, Feed making factories, Fertilizer making factories, Agri Product processing factories and any tangible product provider or manufacturer. Initially the project will be focusing on neighboring communities, and opportunity for expansion could be capitalize depending successful marketing of product.

11 PROJECT COST SUMMARY

11.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of **Rs. 63,273,700/-** in the year one. The capacity utilization during year one is worked out at **65%** with **5%** increase in subsequent years up to the maximum capacity utilization of **95%**.

The following table shows internal rate of return, payback period and net present value of the proposed venture.

Table 1: Project Economics

Description	Details
Internal Rate of Return (IRR)	35%
Payback Period (yrs.)	4.03
Net Present Value (Rs.)	41,651,772

11.2 Project Financing

Following table provides details of the equity required and variables related to bank loan;

Table 2: Project Financing

Description	Details
Total Equity (50%)	Rs. 15,200,052
Bank Loan (50%)	Rs. 15,200,052
Markup to the Borrower (%age / annum)	13 %
Tenure of the Loan (Years)	10

11.3 Project Cost

Following fixed and working capital requirements have been identified for operations of the proposed business.

Table 3: Project Cost

Capital Investment	Rs. in actuals
Land	9,300,000
Building/Infrastructure	3,240,000
Machinery & equipment	15,007,000
Furniture & fixtures	935,000
Office vehicles	-
Office equipment	232,000
Pre-operating costs	53,745
Training costs	-
Total Capital Costs	28,767,745
Working Capital	Rs. in actuals
Equipment spare part inventory	-
Raw material inventory	782,009
Upfront land lease rental	-
Upfront building rent	-
Upfront machinery & equipment lease rental *	-
Upfront office equipment lease rental *	-
Upfront office vehicles lease rental *	-
Upfront insurance payment	750,350
Cash	100,000
Total Working Capital	1,632,359
Total Investment	30,400,104

11.4 Space Requirement

The space requirement for the proposed **Non-Woven Bag Manufacturing Unit** is estimated considering various facilities including management office, Machinery processing area, warehouse and open space, etc. Details of space requirement and cost related to land & building is given below;

Table 4: Space Requirement

Description	Estimated Area (Sq Ft)	Unit Cost (Rs.)	Total Cost (Rs.)
Area for Plant	5000	500	2,500,000
Manager Office	200	1200	240,000
Warehouse	1000	500	500,000
Total	6,200		3,240,000

11.5 Machinery & Equipment Requirement

Plant, machinery and equipment for the proposed project are stated below.

Table 5: Machinery & Equipment

Description	Price	Qty	Total
NON-Woven bag making machine	13,167,000	1	13,167,000
NON-Woven Flexo Printing machine	1,840,000	1	1,840,000
Total Cost			15,007,000

11.6 Furniture & Fixtures Requirement

Details of the furniture and fixture required for the project are given below.

Table 6: Furniture & Fixture

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Office Furniture(table & Chair)	1	100,000	100,000
Generator (8 KVA)	1	125,000	125,000

Air conditioners (2 ton split)	2	105,000	210,000
Electric wiring etc.	1	500,000	500,000
Total			935,000/-

11.7 Office Equipment Requirement

Following office equipment will be required for **Non-Woven Bag Manufacturing Unit**.

Table 7: Office Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Laptops	2	85,000	170,000
3-in-1 printer	1	25,000	25,000
Telephones	2	3500	7000
Computer printer Scanner and Copier	1	30,000	30,000
Total			232,000/-

11.8 Human Resource Requirement.

In order to run operations of **Non-Woven Bag Manufacturing Unit** smoothly, details of human resources required along with number of employees and monthly salary are recommended as under;

Table 8: Human Resource Requirement

Description	No. of Employees	Monthly Salary per person (Rs.)
Manager	1	50,000
Accountant	1	30,000
NON-Woven Sheet Cutting machine	1	30,000
NON-Woven Bag Sealing Machine	1	30,000
NON-Woven Bag Handle Sealing machine	1	25,000
NON-Woven Bag Handle fixing machine	2	25,000

NON-Woven bag Handle Punching Machine	2	25,000
Guard and Sweeper	3	18,500
office boy	1	18,500
Support services	2	18,500
Ware house Incharge	1	30000
Total	16	406,000/-

11.9 Utilities and other costs.

An essential cost to be borne by the project is the cost of utilities. The administrative expenses are Rs. 50,000 per month which includes the utilities. Furthermore, promotional expense being essential for marketing of **Non-Woven Bag Manufacturing Unit** is estimated as 1% of Revenue that for year 1.

11.10 Revenue Generation.

Based on the capacity utilization of **65%**, sales revenue during the first year of operations is estimated as under;

Table 9: Revenue Generation – Year 1

Description	No. of units Produced (No.)	Finished Goods Inventory (No.)	Units available for Sale (No.)	Sale Price / unit (Rs.)	Sales Revenue (Rs.)
All-purpose	1,622,400	1,622,400	1,622,400	60	63,273,700/-

12 CONTACT DETAILS

In order to facilitate potential investors, contact details of private sector Service Providers relevant to the proposed project be given.

12.1 Machinery Suppliers

Name of Supplier	Address	Phone	Fax	E-mail	Website
ZHEJIANG ZHUXIN MACHINERY CO., LTD	18 East Liangyou Road, ZhangQiao Village,Wanquan Town, PingYang County,WenZhou City, Zhejiang Province,China (325400)	0086-577-6377 8023		vivi-yww@hotmail.com -	www.zxinmachinery.com
Zhejiand Zhengwei Machinery CO Ltd.	FEIYUN NEW AREA,FEIYUN TOWN,RUIAN CHINA.	0086-13967728010		zw1@china-zhengwei.com	http://www.china-zhengwei.com

13 USEFUL WEB LINKS

Small & Medium Enterprises Development Authority (SMEDA)	www.smeda.org.pk
Government of Pakistan	www.pakistan.gov.pk
Ministry of Industries & Production	www.moip.gov.pk
Ministry of Education, Training & Standards in Higher Education	http://moptt.gov.pk
Government of Punjab	www.punjab.gov.pk
Government of Sindh	www.sindh.gov.pk
Government of Khyber Pakhtunkhwa	www.khyberpakhtunkhwa.gov.pk
Government of Balochistan	www.balochistan.gov.pk
Government of Gilgit Baltistan	www.gilgitbaltistan.gov.pk
Government of Azad Jamu Kashmir	www.ajk.gov.pk
Trade Development Authority of Pakistan (TDAP)	www.tdap.gov.pk
Security Commission of Pakistan (SECP)	www.secp.gov.pk
Federation of Pakistan Chambers of Commerce and Industry (FPCCI)	www.fpcci.com.pk
State Bank of Pakistan (SBP)	www.sbp.org.pk
Punjab Small Industries Corporation	www.psic.gop.pk
Sindh Small Industries Corporation	www.ssic.gos.pk
Pakistan Horticulture Development and Export Company (PHDEC)	www.phdec.org.pk
Punjab Vocational Training Council (PVTC)	www.pvtc.gop.pk
Technical Education and Vocational Training Authority (TEVTA)	www.tevta.org
Pakistan Readymade Garment Technical Training Institute	www.prgmea.org/prgtti/
Livestock & Dairy Development Department, Government of Punjab.	www.livestockpunjab.gov.pk
Punjab Industrial Estates (PIE)	www.pie.com.pk
Faisalabad Industrial Estate Development and Management Company (FIEDMC)	www.fiedmc.com.pk

14 ANNEXURES

14.1 Income Statement

Statement Summaries										SMEDA
Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Rs. in actuals Year 10
Revenue	63,273,700	74,954,880	88,339,680	103,651,891	121,143,148	141,096,137	163,828,292	180,211,122	198,232,234	218,055,457
Cost of goods sold	52,876,845	59,593,945	66,864,066	74,727,035	83,225,410	92,404,662	105,561,340	111,486,604	117,771,148	124,439,074
Gross Profit	10,396,855	15,360,935	21,475,614	28,924,856	37,917,738	48,691,475	58,266,952	68,724,518	80,461,085	93,616,383
<i>General administration & selling expenses</i>										
Administration expense	5,647,920	6,197,809	6,801,237	7,463,415	8,190,064	8,987,460	12,455,099	13,667,745	14,998,456	16,458,727
Rental expense	-	-	-	-	-	-	-	-	-	-
Utilities expense	60,000	66,000	72,600	79,860	87,846	96,631	106,294	116,923	128,615	141,477
Travelling & Comm. expense (phone, fax, etc.)	111,840	122,729	134,678	147,790	162,179	177,970	246,636	270,648	296,999	325,915
Office vehicles running expense	-	-	-	-	-	-	-	-	-	-
Office expenses (stationary, etc.)	111,840	122,729	134,678	147,790	162,179	177,970	246,636	270,648	296,999	325,915
Promotional expense	126,547	149,910	176,679	207,304	242,286	282,192	327,657	360,422	396,464	436,111
Insurance expense	750,350	675,315	600,280	525,245	450,210	375,175	300,140	225,105	150,070	75,035
Professional fees (legal, audit, etc.)	316,369	374,774	441,698	518,259	605,716	705,481	819,141	901,056	991,161	1,090,277
Depreciation expense	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400
Amortization expense	10,749	10,749	10,749	10,749	10,749	-	-	-	-	-
Property tax expense	-	-	-	-	-	-	-	-	-	-
Miscellaneous expense	1,898,211	2,248,646	2,650,190	3,109,557	3,634,294	4,232,884	4,914,849	5,406,334	5,946,967	6,541,664
Subtotal	10,813,226	11,748,062	12,802,190	13,989,370	15,324,924	16,815,161	21,195,851	22,998,282	24,985,133	27,174,522
Operating Income	(416,371)	3,612,873	8,673,424	14,935,486	22,592,814	31,876,313	37,071,101	45,726,236	55,475,953	66,441,862
Other income	8,996	168,353	650,208	1,174,844	1,609,643	2,076,826	2,503,179	2,889,950	3,306,361	3,883,826
Gain / (loss) on sale of assets	-	-	-	-	-	-	-	-	-	-
Earnings Before Interest & Taxes	(407,375)	3,781,225	9,323,632	16,110,331	24,202,457	33,953,139	39,574,280	48,616,186	58,782,313	70,325,688
Interest expense	1,949,835	1,768,387	1,653,674	1,524,048	1,377,570	1,212,051	1,025,014	813,662	574,834	304,959
Earnings Before Tax	(2,357,210)	2,012,838	7,669,958	14,586,283	22,824,887	32,741,088	38,549,266	47,802,524	58,207,479	70,020,729
Tax	-	-	3,003,491	5,980,376	9,358,204	13,423,846	15,805,199	19,599,035	23,865,066	28,708,499
NET PROFIT/(LOSS) AFTER TAX	(2,357,210)	2,012,838	4,666,468	8,605,907	13,466,683	19,317,242	22,744,067	28,203,489	34,342,413	41,312,230
Balance brought forward		(2,357,210)	(344,372)	2,161,048	5,383,477	9,425,080	14,371,161	18,557,614	23,380,552	28,861,482
Total profit available for appropriation	(2,357,210)	(344,372)	4,322,096	10,766,955	18,850,161	28,742,322	37,115,228	46,761,103	57,722,964	70,173,712
Dividend	-	-	2,161,048	5,383,477	9,425,080	14,371,161	18,557,614	23,380,552	28,861,482	35,086,856
Balance carried forward	(2,357,210)	(344,372)	2,161,048	5,383,477	9,425,080	14,371,161	18,557,614	23,380,552	28,861,482	35,086,856

14.2 Balance Sheet

Statement Summaries											SMEDA
Balance Sheet											Rs. in actuals
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets											
<i>Current assets</i>											
Cash & Bank	100,000	79,926	3,287,126	9,717,043	13,779,846	18,413,021	23,123,497	26,940,078	30,858,921	35,268,289	42,408,240
Accounts receivable	-	1,733,526	1,893,542	2,236,912	2,630,022	3,079,384	3,592,319	4,177,047	4,712,869	5,184,156	5,702,571
Finished goods inventory	-	-	-	-	-	-	-	-	-	-	-
Equipment spare part inventory	-	-	-	-	-	-	-	-	-	-	-
Raw material inventory	782,009	910,800	1,055,389	1,217,497	1,399,018	1,602,041	1,828,863	1,977,915	2,139,115	2,313,453	-
Pre-paid annual land lease	-	-	-	-	-	-	-	-	-	-	-
Pre-paid building rent	-	-	-	-	-	-	-	-	-	-	-
Pre-paid lease interest	-	-	-	-	-	-	-	-	-	-	-
Pre-paid insurance	750,350	675,315	600,280	525,245	450,210	375,175	300,140	225,105	150,070	75,035	-
Total Current Assets	1,632,359	3,399,567	6,836,338	13,696,696	18,259,096	23,469,620	28,844,818	33,320,145	37,860,975	42,840,933	48,110,811
<i>Fixed assets</i>											
Land	9,300,000	9,300,000	9,300,000	9,300,000	9,300,000	9,300,000	9,300,000	9,300,000	9,300,000	9,300,000	9,300,000
Building/Infrastructure	3,240,000	3,078,000	2,916,000	2,754,000	2,592,000	2,430,000	2,268,000	2,106,000	1,944,000	1,782,000	1,620,000
Machinery & equipment	15,007,000	13,506,300	12,005,600	10,504,900	9,004,200	7,503,500	6,002,800	4,502,100	3,001,400	1,500,700	-
Furniture & fixtures	935,000	841,500	748,000	654,500	561,000	467,500	374,000	280,500	187,000	93,500	-
Office vehicles	-	-	-	-	-	-	-	-	-	-	-
Office equipment	232,000	208,800	185,600	162,400	139,200	116,000	92,800	69,600	46,400	23,200	-
Total Fixed Assets	28,714,000	26,934,600	25,155,200	23,375,800	21,596,400	19,817,000	18,037,600	16,258,200	14,478,800	12,699,400	10,920,000
<i>Intangible assets</i>											
Pre-operation costs	53,745	42,996	32,247	21,498	10,749	-	-	-	-	-	-
Legal, licensing, & training costs	-	-	-	-	-	-	-	-	-	-	-
Total Intangible Assets	53,745	42,996	32,247	21,498	10,749	-	-	-	-	-	-
TOTAL ASSETS	30,400,104	30,377,164	32,023,785	37,093,995	39,866,245	43,286,620	46,882,418	49,578,345	52,339,775	55,540,333	59,030,811
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable	-	3,931,343	4,447,536	5,005,959	5,609,586	6,261,585	6,965,336	7,715,880	8,106,795	8,517,673	8,743,903
Export re-finance facility	-	-	-	-	-	-	-	-	-	-	-
Short term debt	-	-	-	-	-	-	-	-	-	-	-
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Total Current Liabilities	-	3,931,343	4,447,536	5,005,959	5,609,586	6,261,585	6,965,336	7,715,880	8,106,795	8,517,673	8,743,903
<i>Other liabilities</i>											
Lease payable	-	-	-	-	-	-	-	-	-	-	-
Deferred tax	-	-	-	3,003,491	3,076,435	3,076,435	2,461,148	1,845,861	1,230,574	615,287	(0)
Long term debt	15,200,052	13,602,979	12,720,568	11,723,445	10,596,695	9,323,468	7,884,721	6,258,937	4,421,802	2,345,839	-
Total Long Term Liabilities	15,200,052	13,602,979	12,720,568	14,726,935	13,673,130	12,399,903	10,345,869	8,104,798	5,652,376	2,961,126	(0)
<i>Shareholders' equity</i>											
Paid-up capital	15,200,052	15,200,052	15,200,052	15,200,052	15,200,052	15,200,052	15,200,052	15,200,052	15,200,052	15,200,052	15,200,052
Retained earnings	-	(2,357,210)	(344,372)	2,161,048	5,383,477	9,425,080	14,371,161	18,557,614	23,380,552	28,861,482	35,086,856
Total Equity	15,200,052	12,842,842	14,855,680	17,361,100	20,583,530	24,625,132	29,571,213	33,757,666	38,580,604	44,061,534	50,286,908
TOTAL CAPITAL AND LIABILITIES	30,400,104	30,377,164	32,023,785	37,093,995	39,866,245	43,286,620	46,882,418	49,578,345	52,339,775	55,540,333	59,030,811
Note: Total assets value will differ from project cost due to first instalment of leases paid at the start of year 0											

14.3 Cash Flow Statement

Statement Summaries											SMEDA
Cash Flow Statement											Rs. in actuals
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
<i>Operating activities</i>											
Net profit	-	(2,357,210)	2,012,838	4,666,468	8,605,907	13,466,683	19,317,242	22,744,067	28,203,489	34,342,413	41,312,230
Add: depreciation expense	-	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400	1,779,400
amortization expense	-	10,749	10,749	10,749	10,749	10,749	-	-	-	-	-
Deferred income tax	-	-	-	3,003,491	72,944	-	(615,287)	(615,287)	(615,287)	(615,287)	(615,287)
Accounts receivable	-	(1,733,526)	(160,016)	(343,370)	(393,110)	(449,363)	(512,935)	(584,728)	(535,822)	(471,287)	(518,416)
Finished good inventory	-	-	-	-	-	-	-	-	-	-	-
Equipment inventory	-	-	-	-	-	-	-	-	-	-	-
Raw material inventory	(782,009)	(128,791)	(144,589)	(162,108)	(181,521)	(203,022)	(226,822)	(149,052)	(161,200)	(174,338)	2,313,453
Pre-paid building rent	-	-	-	-	-	-	-	-	-	-	-
Pre-paid lease interest	-	-	-	-	-	-	-	-	-	-	-
Advance insurance premium	(750,350)	75,035	75,035	75,035	75,035	75,035	75,035	75,035	75,035	75,035	75,035
Accounts payable	-	3,931,343	516,193	558,423	603,626	652,000	703,751	750,545	390,915	410,878	226,229
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Cash provided by operations	(1,532,359)	1,577,000	4,089,610	9,588,088	10,573,031	15,331,482	20,520,384	23,999,979	29,136,530	35,346,814	44,572,645
<i>Financing activities</i>											
Change in long term debt	15,200,052	(1,597,074)	(882,410)	(997,124)	(1,126,750)	(1,273,227)	(1,438,747)	(1,625,784)	(1,837,136)	(2,075,963)	(2,345,839)
Change in short term debt	-	-	-	-	-	-	-	-	-	-	-
Change in export re-finance facility	-	-	-	-	-	-	-	-	-	-	-
Add: land lease expense	-	-	-	-	-	-	-	-	-	-	-
Land lease payment	-	-	-	-	-	-	-	-	-	-	-
Change in lease financing	-	-	-	-	-	-	-	-	-	-	-
Issuance of shares	15,200,052	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares	-	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financing act	30,400,104	(1,597,074)	(882,410)	(997,124)	(1,126,750)	(1,273,227)	(1,438,747)	(1,625,784)	(1,837,136)	(2,075,963)	(2,345,839)
<i>Investing activities</i>											
Capital expenditure	(28,767,745)	-	-	-	-	-	-	-	-	-	-
Acquisitions	-	-	-	-	-	-	-	-	-	-	-
Cash (used for) / provided by investing act	(28,767,745)	-	-	-	-	-	-	-	-	-	-
NET CASH	100,000	(20,074)	3,207,200	8,590,964	9,446,281	14,058,255	19,081,637	22,374,196	27,299,395	33,270,851	42,226,807
Cash balance brought forward		100,000	79,926	3,287,126	9,717,043	13,779,846	18,413,021	23,123,497	26,940,078	30,858,921	35,268,289
Cash available for appropriation	100,000	79,926	3,287,126	11,878,091	19,163,324	27,838,101	37,494,658	45,497,692	54,239,473	64,129,772	77,495,096
Dividend	-	-	-	2,161,048	5,383,477	9,425,080	14,371,161	18,557,614	23,380,552	28,861,482	35,086,856
Cash carried forward	100,000	79,926	3,287,126	9,717,043	13,779,846	18,413,021	23,123,497	26,940,078	30,858,921	35,268,289	42,408,240

15 KEY ASSUMPTIONS

15.1 Operating Cost Assumptions

Description	Details
Operational Days/ year	330
Hours operational/ days	8
Shift Length (Hours)	8

15.2 Production Cost Assumptions

Description	Details
Initial Capital utilization	65%
Annual Capital Utilization Growth	5%
Maximum Capital Utilization	95%

15.3 Revenue Assumptions

Description	Details
Revenue	6,327,700
Cost of goods sold per unit	44
Sale Price/unit	60
Production per year (unit)	1,622,400

15.4 Financial Assumptions

Description	Details
Interest Rate	13%
Debt: Equity Ratio	50:50
Debt Tenure	10 Years

Small and Medium Enterprises Development Authority

HEAD OFFICE

4th Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road, Lahore
Tel: (92 42) 111 111 456, Fax: (92 42) 36304926-7

www.smeda.org.pk, helpdesk@smeda.org.pk

REGIONAL OFFICE PUNJAB	REGIONAL OFFICE SINDH	REGIONAL OFFICE KPK	REGIONAL OFFICE BALOCHISTAN
3 rd Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road Lahore, Tel: (042) 111-111-456 Fax: (042) 36304926-7 helpdesk.punjab@smeda.org.pk	5 TH Floor, Bahria Complex II, M.T. Khan Road, Karachi. Tel: (021) 111-111-456 Fax: (021) 5610572 helpdesk-khi@smeda.org.pk	Ground Floor State Life Building The Mall, Peshawar. Tel: (091) 9213046-47 Fax: (091) 286908 helpdesk-pew@smeda.org.pk	Bungalow No. 15-A Chaman Housing Scheme Airport Road, Quetta. Tel: (081) 831623, 831702 Fax: (081) 831922 helpdesk-qta@smeda.org.pk