



Pre-feasibility Study

STEEL NAIL MAKING UNIT

March 2020

“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

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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.

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2 EXECUTIVE SUMMARY

Steel Nail Making Unit is proposed to be located at Quetta, Loralai, Sibi, Dera Murad Jamali, Gilgit, Chitral, Peshawar, Lahore, Faisalabad, Lasbela, Hub, Karachi, Islamabad, Gujranwala, Dir, Gilgit etc.

Product include **Steel Nails for Industrial, Commercial and Household Uses**

Capacity; Installed capacity **3,120 Tons** and initial utilization **2,028 Tons, 65%**

Total Cost Estimates is **Rs. 38,059,018** with fixed investment **Rs. 31,773,177** and working capital **Rs. 6,285,841**.

Given the cost assumptions IRR and payback are **33 %** and **3.76 years** respectively

The most critical considerations or factors for success of the project are:

- Most significant consideration

Recognizing quality at all levels of an organization, including upper management.

Fostering a responsive corporate culture.

Training all personnel on how to plan, control and improve quality

Availability of hard working & low-cost labor.

Increasing inland trends towards use of steel nails

Large and established world markets.

Improved technological changes available.

- Equally important factor

Emphasizing on excellent services to its customers such as standardized products and timely order fulfillment.

New machinery should be purchased in order to increase the efficiency and lower the maintenance cost.

Refurbished standardized machinery is also recommended.

Adapt to the rapid, social, economic and technological changes.

Hiring of well-trained / experienced staff will add in the efficiency of the facility.

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 **Steel Nail Making 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 it's 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

This project envisages production of steel nails which is having a very bright prospect in industrial, commercial and household use. Steel nail is largely used in the hardboard packing and delivery services.

The building and construction industries are fast growing especially in the economy like Pakistan. The market demand for nail in Pakistan is on the increase daily. As a result, the local industry is growing bigger in the production of nail, hence, there are various type of nails in the market. Nail is an important element of Pakistan's building business sector. Most nails made today are wire nails, made from mild steel wire and more or less round from specific gauges. Previously, 'cut nails' were more common; cut nails which are still made, are from steel or iron plate and so have a rectangular section and have holding power of about 1.5 times greater than that of wire nails of the same length, but are more expensive to manufacture. Nails are increasingly important as a means of fastening wood, and other composite materials.

A nail is a headed pin or spike of metal, commonly of iron. The principal use of nails is in fixing members in wooden construction, but nail are also employed in shoemaking, upholstery and saddlery work. The locally produced nails in Pakistan are been manufactured from the mild steel wire low carbon category which are been drawn from locally produced coils. The steel wires are put into a locally produced nail-making machine which can produce between 500 -700 nails per minute. The nails are then hammered to form nail shape, which are cleaned, finished, and packaged.

5.1 Nail Composition

Nails is formerly made of bronze or wrought iron, today's nails are typically made of steel, which is an alloy of iron and carbon, often dipped or coated to prevent corrosion in harsh conditions or improve adhesion. It can be classified as low carbon mild steel nail when the percentage of carbon is between 0.15% - 0.45%.

Other alloying elements such as Nickel, Chromium, Tungsten Molybdenum, cobalt when added will produce an improvement in the properties either by increasing wear resistance or corrosion resistance. Most nail composition are iron, zinc, silver, Monel steel, aluminum, copper, brass, bronze, stainless steel and nickel. Generally, wooden nails are soft which makes it easy for penetration into the wood, the composition are low-carbon mild steel, iron, silicon or manganese. Concrete nails are harder as it does not bend easily when nailed to wall or material, it has more percentage of carbon composition between 0.5 – 0.8% when

compared to wooden nail which has less percentage of carbon composition between 0.15 – 0.45%.

5.2 The concept of quality

The concept of quality varies from one user to another with a company producing goods of different degrees of quality. Quality is defined as the fitness for a purpose, whereas assessment has to do with the appraisal of the value of an object or testing its value.

In most parts of the world, nails are described by their dimensions in millimeters, a “150 x 4” is a nail 150mm long and 4mm in diameter and mainly varies in length between 13mm (½in) – 150mm (6in); a description of the ‘head’ and ‘finish’ may be typically added. Some nails have no ‘finish’ and are mostly used for rough carpentry work where appearance is not important, but strength is essential. When inclined they can be used to split a piece wood and can be rusty when used on surfaces in contact with water. A common way of making nails corrosion resistant is to coat them with zinc; Hot-dipped (H.D.) nails can be galvanized by dipping them in molten zinc while electro – galvanized nails are plated with zinc and are not as corrosion – resistant as hot dipped nails. A third process, ‘peening’ is the process of applying zinc onto the nails by roughening the nail surface, all these treatments – especially hot dipping also increase the holding power of the nail.

5.3 The ISO 9000 Standard

The ISO 9000 standard (Quality Management and Quality Assurance Standard) is a deliberately generic standard series of quality system management. The ISO 9000 standard has permanently influenced the way manufacturing companies conduct business in world trade and has become the world standard for quality.

The ISO series includes the following standards:

1. ISO 9001 – Quality systems: model for quality assurance in design / development production, installation and servicing.
2. ISO 9002 – Quality systems: model for quality assurance in production and installation.
3. ISO 9003 – Quality systems: model for quality assurance in final inspection and test.
4. ISO 9004 – Quality management and quality system element: Guidelines.

Companies voluntarily register for these standards and are issued certificates ISO 9000 standard is not a product certification. It is a quality process certification; the

QS 9000 standard, ISO 14000 standard are rapidly being employed by manufacturers in the industries.

5.4 Uses of Steel Nails

Apart from mild steel, there are two major types of nails that are common, these are 304 and 316 stainless steel, but stainless steel nails are not as stronger as ordinary steel nails and also stainless steel nails are three times expensive as galvanized nails and are more resistant to rust. Aluminum nails are not so strong for most structural framing, but majorly used to fasten aluminum siding or screening, unlike copper nails that are used in roofing and in marine application.

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

- **Technology:** This proposed unit with modern processing and production machines including Nail Making Machine 8 Gauge, 10 Gauge, 12 Gauge, 14 Gauge, 17 Gauge, 19 Gauge, 20 Gauge, 21 Gauge, 22 Gauge, Nail Polishing Drum, Nail Cutter Grinder, Wire Coil Stand etc.
- **Location:** The unit would be located in or near an area where the raw material is available easily like Quetta, Loralai, Peshawar, Lahore, Faisalabad, Lasbela, Hub, Karachi, Islamabad or any other site where raw material can be transported easily.
- **Product:** The unit would produce Steel Nails for industrial, commercial and household uses.
- **Target Market:** As domestic consumption is available, Steel Nails industry will be dependent largely on the local market. But Steel Nails can be exported.
- **Employment Generation:** The proposed project will provide direct employment to 15 people. Financial analysis shows the unit shall be profitable from the very first year of operation.

5.5 Production Process Flow

Manufacturing of nails passes through the following steps. In the first step, feeding of wire coil to nail making machine to form the bottom and top portion of nail and cut the nail. Here the manufacturing of flat head nails ends here. Now manufacturing of the nail head on a washer making machine is carried on in which at this stage polishing of head part is done in the machine and the head parts are feed to the nail making machine. Punching of the head to the nail and pressing in to umbrella shape will be done. In the polishing of all manufactured nail i.e. flat

head and topped nail is done. Polishing is the process of removing excess oil and grease applied to machine and wire during production to prevent corrosion, friction effect and rusting.

5.6 Materials for Nails

Production of nails require the following raw materials

- i. Chemical like low carbon mild steel wire
- ii. Rolled steel (cold) sheet wire

5.7 Installed And Operational Capacities

The total installed capacity of the project is **3,120 Tons** of Steel Nails along with assumed operational capacity of **65%** during the first year of operations i.e. **2,028 Tons** of steel nails. A gradual increase of **3%** in production capacity per annum.

6 CRITICAL FACTORS

Steel Nails have a wide range of application, not only in industrial sector but also in the commercial and household. Certain critical factors involved during the production process of steel nails are:

- Create constancy of purpose towards improvement of product and service
- Adopt the new philosophy
- Cease dependence on mass inspection to achieve quality
- End the practice of awarding business on the basis of price tag
- Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease cost
- Institute training on the job
- Drive out fear so that everyone can work effectively
- Break down barriers between departments
- Eliminate slogans, exhortations and targets for zero defect and new level of productivity
- Institute a vigorous program of education and self-improvement
- Put everybody in the company to work to accomplish the transformation.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

It is suitable to establish the production unit Quetta, Hub, Loralai, Bostan, Sibi, Peshawar, Lahore and Karachi. However such a unit could be established in other parts of the country provided the main conditions are fulfilled such as Availability of

low carbon mild steel wire. Along with, manpower availability, accessibility to markets, and reasonable demand & usage of steel nails should be considered.

8 POTENTIAL TARGET CUSTOMERS / MARKETS

As domestic consumption is available, Steel Nails industry will be dependent largely on the local market. Most of the Steel Nail used for industrial, commercial and household applications could be produced.

9 PROJECT COST SUMMARY

9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 328.82 million in the year one. The capacity utilization during year one is worked out at 65% with 3% 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)	33%
Payback Period (yrs.)	3.76
Net Present Value (Rs.)	42,005,563

9.2 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. 19,029,509
Bank Loan (50%)	Rs. 19,029,509
Markup to the Borrower (%age / annum)	16%
Tenure of the Loan (Years)	5 Years

9.3 Project Cost

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

Table 3: Project Cost

Description	Amount Rs.
Capital Cost	
Land	3,944,444
Building / Infrastructure	9,389,080
Plant and Machinery	16,786,400
Furniture & Fixture	532,500
Office Equipment	497,500
Pre-operating Cost	623,253
Total Capital Cost	31,773,177
Working Capital	
Equipment Spare Parts Inventory	809,468
Raw Material Inventory	4,137,054
Up-front Insurance Payments	839,320
Cash	500,000
Total Working Capital	6,285,841
Total Project Cost	38,059,018

9.4 Space Requirement

The space requirement for the proposed **Steel Nail Making Unit** is estimated considering various facilities including management office, production hall, storage, open space, etc. Details of space requirement and cost related to land & building is given below;

Table 4: Space Requirement

Description	Estimated Area (Sqft)	Unit Cost (Rs.)	Total Cost (Rs.)
Management Office	500	1,200	600,000
Working Shed Area	15,000	526	7,889,080

Restrooms	800	500	400,000
Drive way / Pavement	10,000	30	300,000
Grounds	10,000	20	200,000
Total	36,300		9,389,080

9.5 Machinery & Equipment Requirement

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

Table 5: Machinery & Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Nail Making Machine 8 Gauge	1	750,000	750,000
Nail Making Machine 10 Gauge	1	450,000	450,000
Nail Making Machine 12 Gauge	2	320,000	640,000
Nail Making Machine 14 Gauge	3	260,000	780,000
Nail Making Machine 17 Gauge	6	200,000	1,200,000
Nail Making Machine 19 Gauge	6	200,000	1,200,000
Nail Making Machine 20 Gauge	6	200,000	1,200,000
Nail Making Machine 21 Gauge	6	200,000	1,200,000
Nail Making Machine 22 Gauge	6	200,000	1,200,000
Polishing Drum	3	250,000	750,000
Transformer 50 kv	1	2,500,000	2,500,000
Generator	1	1,200,000	1,200,000
Nail Cutter Grinder	1	200,000	200,000
Wire Coil Stand	10	20,000	200,000
Installation	1	450,000	450,000
Total machinery cost			13,920,000
GST 17%		0.17	
Total			16,286,400
Transportation charges	1	500,000	500,000
Total			16,786,400

9.6 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.)
Tables	3	6,000	18,000
Executive Chairs	3	5,000	15,000
Visitors Chairs	7	3,500	24,500
Carpeting & Wiring	1,000	385	385,000
Air Conditioners (2 ton Split)	1	90,000	90,000
Total			532,500

9.7 Office Equipment Requirement

Following office equipment will be required for **Steel Nail Making Unit**;

Table 7: Office Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Laptop	2	50,000	50,000
Printer	1	20,000	20,000
Fax Machine	1	20,000	20,000
Telephone Exchange	1	150,000	150,000
Telephone Sets	3	2,500	7,500
Photo Copier	1	200,000	200,000
Total			497,500

9.8 Human Resource Requirement

In order to run operations of **Steel Nail Making 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.)
CEO	1	50,000
Manager	1	45,000
Supervisor	1	35,000

Electrician	1	25,000
Accountant cum Receptionist	1	22,000
Salesman	1	22,000
Skilled Worker/ Operator	4	22,000
Semi-Skilled Worker	2	18,000
Mechanic	1	25,000
Security Guard	2	18,000
Total	15	349,000

9.9 Utilities and other costs

An essential cost to be borne by the project is the cost of electricity and gas. The electricity expenses are estimated to be around Rs. 3,006,815 / year. Furthermore, promotional expense being essential for marketing of **Steel Nail Making Unit** is estimated as 1% of administrative / Cost of Sales expenses.

9.10 Revenue Generation

Based on the capacity utilization of 65% for Steel Nails Sales revenue during the first year of operations is estimated as under;

Table 9: Revenue Generation – Year 1

Description	No. of Tons Produced (No.)	Finished Goods Inventory (Tons)	Units available for Sale (Tons)	Sale Price / Ton (Rs.)	Sales Revenue (Rs.)
Steel Nails	2,028	85	1,943	169,191	328,822,762

10 CONTACT DETAILS

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

10.1 Machinery Suppliers

Name of Supplier	Address	Phone	Fax	E-mail	Website
Raja Nail Machinery	Main G.T.Road Daroghawala Chowk, Lahore	0322- 847739			
New England Machinery	Main G.T.Road Daroghawala Chowk, Lahore	042- 6559373		new_england_machines @yahoo.com	www.new England machinery store.enic.pk

10.2 Raw Material Suppliers

Name of Supplier	Address	Phone	Fax	E-mail	Website
Nizami Wires PVT LTD	Nizami Building, Lahore,	042- 3217774798			
STRONGWILL WIRE INDUSTRIES (PVT) LTD	Share-e- Faisal, P.E.C.H.S, Karachi, Sindh, Pakistan	021-35241034 0332-3274880			

10.3 Technical Experts / Consultants

Name of Expert/ Organization	Address	Phone	Fax	E-mail	Website
Pakistan Industrial Technical Assistance Centre	234 Ferozepur Road, Garden Town, Lahore	(042) 99230699		info@pitac.gov.pk	www.pitac.gov.pk
PCSIR Laboratories Quetta	Mastung Road, near Main Ghundi, Quetta	081-2460128, 2460161	081-2460158	pcsirqta@qta.paknet.com.pk	www.pcsir.gov.pk

11 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/
Pakistan Council of Scientific and Industrial Research (PCSIR).	http://www.pcsir.gov.pk
Punjab Industrial Estates (PIE)	www.pie.com.pk
Faisalabad Industrial Estate Development and Management Company (FIEDMC)	www.fiedmc.com.pk

12 ANNEXURES

12.1 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	328,822,762	394,125,423	452,699,865	519,047,940	594,138,632	679,056,983	775,017,617	883,379,809	1,005,664,263	1,143,571,810
Cost of goods sold	306,341,433	367,583,745	421,920,845	483,449,525	553,064,733	631,768,488	720,682,351	821,061,306	934,309,236	1,061,996,150
Gross Profit	22,481,329	26,541,678	30,779,020	35,598,415	41,073,899	47,288,495	54,335,267	62,318,503	71,355,026	81,575,660
<i>General administration & selling expenses</i>										
Administration expense	2,574,000	3,404,015	3,735,435	4,099,122	4,498,218	4,936,171	5,416,764	5,944,148	6,522,878	7,157,955
Rental expense	-	-	-	-	-	-	-	-	-	-
Utilities expense	3,006,815	3,307,496	3,638,246	4,002,070	4,402,277	4,842,505	5,326,755	5,859,431	6,445,374	7,089,911
Travelling & Comm. expense (phone, fax, etc.)	23,400	30,946	33,958	37,265	40,893	44,874	49,243	54,038	59,299	65,072
Office vehicles running expense	-	-	-	-	-	-	-	-	-	-
Office expenses (stationary, etc.)	23,400	30,946	33,958	37,265	40,893	44,874	49,243	54,038	59,299	65,072
Promotional expense	3,288,228	3,941,254	4,526,999	5,190,479	5,941,386	6,790,570	7,750,176	8,833,798	10,056,643	11,435,718
Insurance expense	839,320	755,388	671,456	587,524	503,592	419,660	335,728	251,796	167,864	83,932
Professional fees (legal, audit, etc.)	1,644,114	1,970,627	2,263,499	2,595,240	2,970,693	3,395,285	3,875,088	4,416,899	5,028,321	5,717,859
Depreciation expense	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094
Amortization expense	124,651	124,651	124,651	124,651	124,651	-	-	-	-	-
Property tax expense	-	-	-	-	-	-	-	-	-	-
Miscellaneous expense	-	-	-	-	-	-	-	-	-	-
Subtotal	13,775,021	15,816,416	17,279,296	18,924,709	20,773,697	22,725,033	25,054,092	27,665,241	30,590,772	33,866,614
Operating Income	8,706,309	10,725,262	13,499,724	16,673,706	20,300,202	24,563,461	29,281,175	34,653,262	40,764,255	47,709,046
Other income	-	-	-	-	-	-	-	-	-	-
Gain / (loss) on sale of assets	-	-	-	-	-	-	-	-	-	-
Earnings Before Interest & Taxes	8,706,309	10,725,262	13,499,724	16,673,706	20,300,202	24,563,461	29,281,175	34,653,262	40,764,255	47,709,046
Interest expense	2,696,046	1,992,829	1,537,492	1,003,715	377,983	-	-	-	-	-
Earnings Before Tax	6,010,263	8,732,434	11,962,232	15,669,991	19,922,219	24,563,461	29,281,175	34,653,262	40,764,255	47,709,046
Tax	1,502,566	2,183,108	2,990,558	3,917,498	4,980,555	6,140,865	7,320,294	8,663,315	10,191,064	11,927,261
NET PROFIT/(LOSS) AFTER TAX	4,507,697	6,549,325	8,971,674	11,752,493	14,941,664	18,422,596	21,960,881	25,989,946	30,573,191	35,781,784
Balance brought forward		4,507,697	8,845,618	14,253,833	20,805,061	28,597,380	37,615,981	47,661,489	58,921,149	71,595,472
Total profit available for appropriation	4,507,697	11,057,022	17,817,292	26,006,327	35,746,725	47,019,976	59,576,862	73,651,436	89,494,340	107,377,256
Dividend	-	2,211,404	3,563,458	5,201,265	7,149,345	9,403,995	11,915,372	14,730,287	17,898,868	21,475,451
Balance carried forward	4,507,697	8,845,618	14,253,833	20,805,061	28,597,380	37,615,981	47,661,489	58,921,149	71,595,472	85,901,805

12.2 Balance Sheet

Statement Summaries											SMEDA
Balance Sheet											
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Rs. in actuals Year 10
Assets											
<i>Current assets</i>											
Cash & Bank	500,000	501,258	5,232,772	7,632,203	10,409,559	13,167,550	20,078,282	27,040,041	34,006,752	40,890,502	94,070,911
Accounts receivable	-	13,513,264	14,855,100	17,400,520	19,967,421	22,873,697	26,161,554	29,878,245	34,076,659	38,815,974	44,162,385
Finished goods inventory	-	13,319,193	15,344,196	17,611,041	20,177,814	23,081,834	26,364,882	30,073,723	34,260,685	38,984,305	44,310,043
Equipment spare part inventory	809,468	1,067,247	1,348,446	1,700,682	2,141,392	2,692,200	3,379,912	4,237,736	5,306,793	6,637,970	-
Raw material inventory	4,137,054	5,454,519	6,891,679	8,691,902	10,944,296	13,759,382	17,274,161	21,658,359	27,122,129	33,925,550	-
Pre-paid annual land lease	-	-	-	-	-	-	-	-	-	-	-
Pre-paid building rent	-	-	-	-	-	-	-	-	-	-	-
Pre-paid lease interest	-	-	-	-	-	-	-	-	-	-	-
Pre-paid insurance	839,320	755,388	671,456	587,524	503,592	419,660	335,728	251,796	167,864	83,932	-
Total Current Assets	6,285,841	34,610,868	44,343,647	53,623,871	64,144,074	75,994,323	93,594,519	113,139,901	134,940,883	159,338,233	182,543,339
<i>Fixed assets</i>											
Land	3,944,444	3,944,444	3,944,444	3,944,444	3,944,444	3,944,444	3,944,444	3,944,444	3,944,444	3,944,444	3,944,444
Building/Infrastructure	9,389,080	8,919,626	8,450,172	7,980,718	7,511,264	7,041,810	6,572,356	6,102,902	5,633,448	5,163,994	4,694,540
Machinery & equipment	16,786,400	15,107,760	13,429,120	11,750,480	10,071,840	8,393,200	6,714,560	5,035,920	3,357,280	1,678,640	-
Furniture & fixtures	532,500	479,250	426,000	372,750	319,500	266,250	213,000	159,750	106,500	53,250	-
Office vehicles	-	-	-	-	-	-	-	-	-	-	-
Office equipment	497,500	447,750	398,000	348,250	298,500	248,750	199,000	149,250	99,500	49,750	-
Total Fixed Assets	31,149,924	28,898,830	26,647,736	24,396,642	22,145,548	19,894,454	17,643,360	15,392,266	13,141,172	10,890,078	8,638,984
<i>Intangible assets</i>											
Pre-operation costs	623,253	498,602	373,952	249,301	124,651	-	-	-	-	-	-
Legal, licensing, & training costs	-	-	-	-	-	-	-	-	-	-	-
Total Intangible Assets	623,253	498,602	373,952	249,301	124,651	-	-	-	-	-	-
TOTAL ASSETS	38,059,018	64,008,300	71,365,335	78,269,815	86,414,272	95,888,777	111,237,879	128,532,167	148,082,055	170,228,311	191,182,323
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable	-	25,336,660	30,403,183	34,997,927	40,223,413	46,163,587	52,913,749	60,582,188	69,292,077	79,183,670	86,251,009
Export re-finance facility	-	-	-	-	-	-	-	-	-	-	-
Short term debt	-	-	-	-	-	-	-	-	-	-	-
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Total Current Liabilities	-	25,336,660	30,403,183	34,997,927	40,223,413	46,163,587	52,913,749	60,582,188	69,292,077	79,183,670	86,251,009
<i>Other liabilities</i>											
Lease payable	-	-	-	-	-	-	-	-	-	-	-
Deferred tax	-	1,502,566	2,098,300	2,098,300	2,098,300	2,098,300	1,678,640	1,258,980	839,320	419,660	0
Long term debt	19,029,509	13,631,868	10,988,725	7,890,246	4,257,989	-	-	-	-	-	-
Total Long Term Liabilities	19,029,509	15,134,434	13,087,025	9,988,546	6,356,289	2,098,300	1,678,640	1,258,980	839,320	419,660	0
<i>Shareholders' equity</i>											
Paid-up capital	19,029,509	19,029,509	19,029,509	19,029,509	19,029,509	19,029,509	19,029,509	19,029,509	19,029,509	19,029,509	19,029,509
Retained earnings	-	4,507,697	8,845,618	14,253,833	20,805,061	28,597,380	37,615,981	47,661,489	58,921,149	71,595,472	85,901,805
Total Equity	19,029,509	23,537,206	27,875,127	33,283,343	39,834,570	47,626,889	56,645,490	66,690,999	77,950,658	90,624,981	104,931,314
TOTAL CAPITAL AND LIABILITY	38,059,018	64,008,300	71,365,335	78,269,815	86,414,272	95,888,777	111,237,879	128,532,167	148,082,055	170,228,311	191,182,323
Note: Total assets value will differ from project cost due to first installment of leases paid at the start of year 0											

12.3 Cash Flow Statement

Statement Summaries Cash Flow Statement											SMEDA
											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	-	4,507,697	6,549,325	8,971,674	11,752,493	14,941,664	18,422,596	21,960,881	25,989,946	30,573,191	35,781,784
Add: depreciation expense	-	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094	2,251,094
amortization expense	-	124,651	124,651	124,651	124,651	124,651	-	-	-	-	-
Deferred income tax	-	1,502,566	595,734	-	-	-	(419,660)	(419,660)	(419,660)	(419,660)	(419,660)
Accounts receivable	-	(13,513,264)	(1,341,835)	(2,545,420)	(2,566,901)	(2,906,276)	(3,287,857)	(3,716,691)	(4,198,414)	(4,739,315)	(5,346,411)
Finished good inventory	-	(13,319,193)	(2,025,003)	(2,266,845)	(2,566,774)	(2,904,020)	(3,283,048)	(3,708,841)	(4,186,962)	(4,723,619)	(5,325,739)
Equipment inventory	(809,468)	(257,779)	(281,199)	(352,237)	(440,710)	(550,808)	(687,712)	(857,825)	(1,069,057)	(1,331,177)	6,637,970
Raw material inventory	(4,137,054)	(1,317,465)	(1,437,160)	(1,800,223)	(2,252,394)	(2,815,086)	(3,514,779)	(4,384,198)	(5,463,770)	(6,803,420)	33,925,550
Pre-paid building rent	-	-	-	-	-	-	-	-	-	-	-
Pre-paid lease interest	-	-	-	-	-	-	-	-	-	-	-
Advance insurance premium	(839,320)	83,932	83,932	83,932	83,932	83,932	83,932	83,932	83,932	83,932	83,932
Accounts payable	-	25,336,660	5,066,523	4,594,744	5,225,487	5,940,174	6,750,162	7,668,439	8,709,889	9,891,592	7,067,340
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Cash provided by operations	(5,785,841)	5,398,899	9,586,062	9,061,369	11,610,878	14,165,325	16,314,728	18,877,131	21,696,997	24,782,618	74,655,860
<i>Financing activities</i>											
Change in long term debt	19,029,509	(5,397,641)	(2,643,143)	(3,098,479)	(3,632,257)	(4,257,989)	-	-	-	-	-
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	19,029,509	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares	-	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financ	38,059,018	(5,397,641)	(2,643,143)	(3,098,479)	(3,632,257)	(4,257,989)	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(31,773,177)	-	-	-	-	-	-	-	-	-	-
Acquisitions	-	-	-	-	-	-	-	-	-	-	-
Cash (used for) / provided by invest	(31,773,177)	-	-	-	-	-	-	-	-	-	-
NET CASH	500,000	1,258	6,942,919	5,962,890	7,978,621	9,907,336	16,314,728	18,877,131	21,696,997	24,782,618	74,655,860
Cash balance brought forward		500,000	501,258	5,232,772	7,632,203	10,409,559	13,167,550	20,078,282	27,040,041	34,006,752	40,890,502
Cash available for appropriation	500,000	501,258	7,444,176	11,195,661	15,610,824	20,316,895	29,482,278	38,955,414	48,737,039	58,789,370	115,546,362
Dividend	-	-	2,211,404	3,563,458	5,201,265	7,149,345	9,403,995	11,915,372	14,730,287	17,898,868	21,475,451
Cash carried forward	500,000	501,258	5,232,772	7,632,203	10,409,559	13,167,550	20,078,282	27,040,041	34,006,752	40,890,502	94,070,911

13 KEY ASSUMPTIONS

13.1 Operating Assumptions

Description	Details
Days operational per month	26
Days operational per year	312

13.2 Production Assumptions

Description	Details
Maximum Capacity Utilization	95%
Total Production of tons per day	10
Total Production of tons per month	260
Total Production of the unit per year (100%)	3,120

13.3 Economy Related Assumptions

Description	Details
Electricity price growth rate	10%
Wage growth rate	10%
Sales price growth rate	10%

13.4 Cash Flow Assumptions

Description	Details
Accounts Receivable cycle (in days)	15
Accounts payable cycle (in days)	30

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