Pre-Feasibility Study

Organic Fertilizer Making Unit



Small and Medium Enterprises Development Authority

Ministry of Industries & Production Government of Pakistan

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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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EXECUTIVE SUMMARY

The proposed project is about establishing an **Organic Fertilizer Making Unit**. The subject project is strongly recommended to be established in remote areas where Raw Materials are available in the province. The prevalence of such facility would add economic benefits in the country and would add number of direct and indirect employment opportunity. Moreover, features like low cost & less complexity associated with installation of **Organic Fertilizer Making Unit**, make it more attractive project. Currently the project is being designed / proposed for major cities with potential industrial 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 making of Organic Fertilizer for Local and International consumers, processed according to international quality and standards.

The Extraction unit has the capacity of producing approximately **1500 ton organic fertilizer** annually and will be operational for **330 days** a year and **8 hours** in 1 shift a day. Initially the Unit will be operated at 75% of capital utilization and will increase it by **5%** annually. The Maximum capacity utilization will be **95%**.

The total project investment is **Rs.70,579,419** /- with an Internal Rate of Return (IRR) of **52** % and Net Present Value (NPV) of **83,899,119/- payback period is 2.18.**



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.

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 **Organic Fertilizer 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 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.



BRIEF DESCRIPTION OF PROJECT & PRODUCT

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

- **Technology:** This proposed unit with modern plant includes fertilizer crusher, fertilizer pellet mill, pellets cooling machine, self propelled composed turner Machines for Making of Organic Fertilizer complete line, from raw material to finished product.
- Location: The subject project is strongly recommended to be established in the remote areas of the major cities or urban areas with high potentials of livestock and agriculture potential exists.
- **Product:** Keeping in view the market demand and characteristics "only properly Finished and well protected product" is recommended to be the final product of the proposed prefeasibility.
- **Target Market:** The target customers for the proposed product would primarily be Industries that are involve in agriculture and farming.
- **Employment Generation:** The proposed project will provide direct employment to 44 persons.



PRODUCTION PROCESS

The cycle of making Organic fertilizer is mainly subjected to machine/method used particular to the desired output product. Following is the process flow of making organic fertilizer manufacturing unit:

6.1 Organic Fertilizer Making Process Flow:



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

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 to have utmost results.
- 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

GEOGRAPHICAL POTENTIAL FOR INVESTMENT

The usage of fertilizer is significant in agriculture sector and Livelihood. Almost every farmer use fertilizer for maximum yield and output, Fertilizer demand getting higher with the spam of time. The statistics shows the requirement of such project are feasible for the support of other industry and align products to fulfill the demand of the country and internationally.

POTENTIAL TARGET CUSTOMERS / MARKETS

The target customers for the proposed product would Famers and landlords that are associated with agriculture sector, Initially the project will be focusing on neighboring communities, and opportunity for expansion could be capitalize depending successful marketing of product.

PROJECT COST SUMMARY

1.1 **Project Economics**

All the figures in this financial model have been calculated for estimated sales of **Rs. 112,500,000/-** in the year one. The capacity utilization during year one is worked out at **75%** 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.

| Description | Details |
|-------------------------------|---------|
| Internal Rate of Return (IRR) | 52% |
| Payback Period (yrs.) | 2.18 |

Table 1: Project Economics



Net Present Value (Rs.)

83,899,119

1.2 Project Financing

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

| Description | Details |
|---------------------------------------|---------------|
| Total Equity (100%) | Rs.70,579,419 |
| Bank Loan (0%) | Rs. 0 |
| Markup to the Borrower (%age / annum) | 16 % |
| Tenure of the Loan (Years) | 0 |

Table 2: Project Financing

1.3 Project Cost

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

| Table 3: Proje | ect Cost |
|----------------|----------|
|----------------|----------|

| Capital Investment | Rs. in actuals |
|-------------------------|----------------|
| Land | 5,866,666 |
| Building/Infrastructure | 29,100,000 |
| Machinery & equipment | 22,000,000 |
| Furniture & fixtures | 1,590,000 |
| Office vehicles | 6,180,000 |
| Office equipment | 494,000 |
| Pre-operating costs | 2,790,000 |
| Training costs | - |
| Total Capital Costs | 68,020,666 |

1.4 Space Requirement

The space requirement for the proposed 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;



| Description | Estimated Area (Sq Ft) | Unit Cost (Rs.) | Total Cost (Rs.) |
|------------------------|---------------------------|--------------------|---------------------|
| Area for Plant | 20,000 | 1000 | 20,000,000 |
| Management Office | 2000 | 1100 | 2,200,000 |
| Warehouse | 10,000 | 200 | 2,000,000 |
| Pavement /Driveway | 10,000 | 20 | 200,000 |
| Pipe line Installation | 5000 | 500 | 2500,000 |
| Canteen | 2000 | 1100 | 2,200,000 |
| Total | 49,000 | | 29,100,000 |

Table 4: Space Requirment

1.5 Machinery & Equipment Requirement

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

Table 5: Machinery & Equipment

| Name of the Machine | Units | Unit Cost | Total Cost |
|--------------------------------|-------|-----------|------------|
| fertilizer crusher | - 1 | 5,000,000 | 5,000,000 |
| Fertilizer pellet Mill | 1 | 7,000,000 | 7,000,000 |
| Pellets cooling machine | 1 | 4,000,000 | 4,000,000 |
| Self propelled composet turner | 1 | 6,000,000 | 6,000,000 |
| | - | | - |
| | - | | - |
| | | | - |
| Total Plant & Machinery Cost | | | 22,000,000 |

1.6 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(Lum Sum) | 1 | 960,000 | 960,000 |
| Air conditioners (2 ton split) | 1 | 75,000 | 75,000 |
| Air conditioners (1.5 ton split) | 1 | 55,000 | 55,000 |
| Electric wiring etc. | 1 | 500,000 | 500,000 |



| Total | | | 1,590,000/- |
|-------|--|--|-------------|
|-------|--|--|-------------|

1.7 Office Equipment Requirement

Following office equipment will be required for Project.

| | • • | | |
|---------------------|----------|--------------------|---------------------|
| Description | Quantity | Unit Cost (Rs.) | Total Cost (Rs.) |
| Computer Server | 1 | 50,000 | 50,000 |
| Computer | 6 | 30,000 | 180,000 |
| printer | 2 | 25000 | 50,000 |
| Telephones | 2 | 7000 | 14000 |
| Telephones Exchange | 10 | 3000 | 30,000 |
| Fax Machine | 1 | 20,000 | 20,000 |
| Copier | 1 | 150,000 | 150,000 |
| Total | | | 494,000/- |

Table 7: Office Equipment

1.8 Human Resource Requirement

In order to run operations smoothly, details of human resources required along with number of employees and monthly salary are recommended as under;

| | Table 8: Human Reso | ource R | equirment | |
|---|---------------------|---------|-----------|------|
| D | • .• | NT | 3.6 | (1.1 |

| Description | No. | Monthly Salary |
|------------------------|-----|----------------|
| CEO | 1 | 50,000 |
| | | 2 0.000 |
| Store Manager | 1 | 30,000 |
| Shift Incharge | 2 | 35,000 |
| Plant Operator | 3 | 35,000 |
| Technician | 2 | 35,000 |
| Worker | 20 | 22,500 |
| Accountant | 1 | 30,000 |
| Clerks/Asst Accountant | 2 | 22,500 |
| Marketing Personnel | 3 | 20,000 |
| Guards | 3 | 22,500 |
| Sweepers | 2 | 22,500 |



| Driver | 1 | 22,500 |
|-------------------|----|--------|
| Support service | 2 | 22,500 |
| Marketing Manager | 1 | 50,000 |
| Total | 44 | |

1.9 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 Fertilizer manufacturing unit is estimated as 1% of Revenue that for year 1.

1.10 Revenue Generation

Based on the capacity utilization of **75%**, 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 (No.) | Tons available for Sale (No.) | Sale Price / Ton(Rs.) | Sales Revenue (Rs.) |
|--------------------|-------------------------------------|---|--|-----------------------------|---------------------------|
| Finished | | | | | |
| Fertilizer in tons | 1500 | 1500 | 1500 | 100,000 | 11,2500,000/- |

CONTACT DETAILS

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

1.11 Machinery Suppliers

| Name of Supplier | Address | Phone | Fax | E-mail | |
|------------------|---------|-------|-----|--------|--|
| | | | | | |



| ZHENGZHOU SHUNXIN ENGINEERING EQUIPMENT CO., LTD | Zhengshang Road, Like Village, Chengguan Town, Xingyang City, Henan Province, China | +86-371- 86582811 | | INFO@SXFERTILIZERMACHINE.COM | https: soluti |
|--|---|----------------------|---|------------------------------|------------------|
| China Ftm Mining Co Ltd | p-952,Street#02,Near Madni Masjid/RehmniaService station Raja Ghulam rasool Nagar,Faisalabad | | : | sales@sinoftm.com | http |

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 | www.fpcci.com.pk |
| Industry (FPCCI) | |
| 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 | www.phdec.org.pk |
| (PHDEC) | |
| Punjab Vocational Training Council (PVTC) | www.pvtc.gop.pk |
| Technical Education and Vocational Training Authority | www.tevta.org |
| (TEVTA) | |
| Pakistan Readymade Garment Technical Training Institute | www.prgmea.org/prgtti/ |
| Livestock & Dairy Development Department, Government | www.livestockpunjab.gov.pk |
| of Punjab. | |
| Punjab Industrial Estates (PIE) | www.pie.com.pk |
| Faisalabad Industrial Estate Development and Management | www.fiedmc.com.pk |
| Company (FIEDMC) | |



ANNEXURES

1.12 Income Statement

| Statement Summaries | | | | | | | | | | SMEDA |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Income Statement | | | | | | | | | | Rs. in actua |
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 1 |
| Revenue | 112,500,000 | 126.000.000 | 140,568,750 | 156.279.375 | 173.209.641 | 181.870.123 | 190.963.629 | 200.511.810 | 210,537,401 | 221,064,27 |
| Cost of goods sold | 53,037,750 | 59,295,504 | 66,082,582 | 73,440,142 | 81,412,554 | 86,237,476 | 91,377,498 | 96,855,606 | 102,696,644 | 108,927,47 |
| Gross Profit | 59,462,250 | 66,704,496 | 74,486,168 | 82,839,233 | 91,797,087 | 95,632,646 | 99,586,130 | 103,656,204 | 107,840,757 | 112,136,79 |
| General administration & selling expenses | | | | | | | | | | |
| Administration expense | 4,980,000 | 5,464,860 | 5,996,926 | 6,580,796 | 7,221,511 | 7,924,608 | 8,696,159 | 9,542,829 | 10,471,932 | 11,491,49 |
| Rental expense | 4,980,000 | - | - | - | - | - | - | - | - | - |
| Utilities expense | - | - | - | - | - | - | - | - | - | - |
| Travelling & Comm. expense (phone, fax, etc.) | 99,600 | 109,297 | 119,939 | 131,616 | 144,430 | 158,492 | 173.923 | 190,857 | 209,439 | 229,8 |
| Office vehicles running expense | 61,800 | 67,980 | 74,778 | 82,256 | 90,481 | 99,530 | 109.482 | 120,431 | 132,474 | 145,7 |
| Office expenses (stationary, etc.) | 49,800 | 54,649 | 59,969 | 65,808 | 72,215 | 79.246 | 86,962 | 95.428 | 104,719 | 114,9 |
| Promotional expense | 1,125,000 | 1,260,000 | 1,405,688 | 1,562,794 | 1,732,096 | 1,818,701 | 1,909,636 | 2,005,118 | 2,105,374 | 2,210,6 |
| Insurance expense | 281,800 | 281,800 | 281,800 | 281,800 | 281,800 | 381,330 | 381,330 | 381,330 | 381,330 | 381,3 |
| Professional fees (legal, audit, etc.) | 1,125,000 | 1,260,000 | 1,405,688 | 1,562,794 | 1,732,096 | 1,818,701 | 1,909,636 | 2,005,118 | 2,105,374 | 2,210,6 |
| Depreciation expense | 291.000 | 291.000 | 291.000 | 291.000 | 291,000 | 291.000 | 291,000 | 291.000 | 291,000 | 291,0 |
| Amortization expense | 558,000 | 558,000 | 558,000 | 558,000 | 558,000 | | | | | |
| Property tax expense | - | - | - | - | - | - | - | - | - | - |
| Miscellaneous expense | 1,125,000 | 1,260,000 | 1,405,688 | 1,562,794 | 1,732,096 | 1,818,701 | 1,909,636 | 2,005,118 | 2,105,374 | 2,210,6 |
| Subtotal | 9,697,000 | 10,607,586 | 11,599,475 | 12,679,656 | 13,855,727 | 14,390,309 | 15,467,764 | 16,637,228 | 17,907,016 | 19,286,2 |
| Operating Income | 49,765,250 | 56,096,910 | 62,886,694 | 70,159,576 | 77,941,360 | 81,242,338 | 84,118,366 | 87,018,976 | 89,933,741 | 92,850,5 |
| Other income | 682,864 | 1,778,059 | 2,566,147 | 3,170,493 | 5,282,183 | 9,517,121 | 14,523,551 | 19,962,075 | 25,851,431 | 32,498,5 |
| Gain / (loss) on sale of assets | - | - | _ | - | 2,472,000 | - | - | - | - | - |
| Earnings Before Interest & Taxes | 50,448,114 | 57,874,969 | 65,452,840 | 73,330,069 | 85,695,543 | 90,759,459 | 98,641,917 | 106,981,050 | 115,785,172 | 125,349,15 |
| Interest expense | - | - | - | - | - | - | - | - | - | - |
| Earnings Before Tax | 50,448,114 | 57,874,969 | 65,452,840 | 73,330,069 | 85,695,543 | 90,759,459 | 98,641,917 | 106,981,050 | 115,785,172 | 125,349,15 |
| Tax | 20,683,727 | 23,728,737 | 26,835,665 | 30,065,328 | 35,135,173 | 37,211,378 | 40,443,186 | 43,862,231 | 47,471,921 | 51,393,15 |
| NET PROFIT/(LOSS) AFTER TAX | 29,764,387 | 34,146,232 | 38,617,176 | 43,264,741 | 50,560,370 | 53,548,081 | 58,198,731 | 63,118,820 | 68,313,252 | 73,956,00 |
| Balance brought forward | | 14.882.194 | 24,514,213 | 31,565,694 | 37,415,217 | 87,975,588 | 141,523,668 | 199.722.399 | 262.841.219 | 331,154,4 |
| Total profit available for appropriation | 29,764,387 | 49,028,425 | 63,131,389 | 74,830,435 | 87,975,588 | 141,523,668 | 199,722,399 | 262,841,219 | 331,154,471 | 405,110,4 |
| Dividend | 14,882,194 | 24,514,213 | 31,565,694 | 37,415,217 | - | | - | | - | -05,110,4 |
| Balance carried forward | 14,882,194 | 24,514,213 | 31,565,694 | 37,415,217 | 87,975,588 | 141.523.668 | 199,722,399 | 262.841.219 | 331.154.471 | 405,110,4 |





1.13 Balance Sheet

| Statement Summaries | | | | | | | | | | | SMED |
|------------------------------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Balance Sheet | | | | | | | | | | | Rs. in actua |
| | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year |
| Assets | | | | | | | | | | | |
| Current assets | | | | | | | | | | | |
| Cash & Bank | 500,000 | 14,674,747 | 24,837,681 | 32,187,797 | 38,267,593 | 79,114,247 | 132,377,334 | 190,368,234 | 253,233,424 | 321,242,818 | 400,947,8 |
| Accounts receivable | - | 3,082,192 | 3,267,123 | 3,651,627 | 4,066,413 | 4,513,548 | 4,864,106 | 5,107,312 | 5,362,677 | 5,630,811 | 5,912,3 |
| Finished goods inventory | - | 5,082,192 | 5,207,125 | 3,031,027 | 4,000,415 | 4,515,548 | 4,804,100 | 5,107,512 | 5,502,077 | 5,050,811 | 3,912,3 |
| Equipment spare part inventory | 34,375 | 40,425 | 47,354 | 55,279 | 64,331 | 70,925 | 78,195 | 86,210 | 95,046 | 104,788 | |
| Raw material inventory | 1,742,578 | 2,049,272 | 2,400,530 | 2,802,266 | 3,261,137 | 3,595,403 | 3,963,932 | 4,370,235 | 4,818,184 | 5,312,048 | |
| Pre-paid annual land lease | 1,742,578 | 2,049,272 | 2,400,550 | 2,802,200 | 5,201,157 | 5,595,405 | 3,903,932 | 4,370,233 | 4,010,104 | 5,512,048 | |
| Pre-paid building rent | - | - | - | - | - | - | - | - | - | - | |
| | - | - | - | - | - | - | - | - | - | - | |
| Pre-paid lease interest | 281.800 | 281.800 | 281.800 | 281,800 | 281.800 | 381.330 | 381.330 | 381.330 | 381.330 | 381.330 | - |
| Pre-paid insurance | | | | | | | | | | | 101010 |
| Total Current Assets | 2,558,753 | 20,128,436 | 30,834,488 | 38,978,769 | 45,941,274 | 87,675,453 | 141,664,897 | 200,313,320 | 263,890,661 | 332,671,795 | 406,860,1 |
| Fixed assets | | | | | | | | | | | |
| Land | 5,866,666 | 5,866,666 | 5,866,666 | 5,866,666 | 5,866,666 | 5,866,666 | 5,866,666 | 5,866,666 | 5,866,666 | 5,866,666 | 5,866,6 |
| Building/Infrastructure | 29,100,000 | 28,809,000 | 28,518,000 | 28,227,000 | 27,936,000 | 27,645,000 | 27,354,000 | 27,063,000 | 26,772,000 | 26,481,000 | 26,190,0 |
| Machinery & equipment | 22,000,000 | 22,000,000 | 22,000,000 | 22,000,000 | 22,000,000 | 22,000,000 | 22,000,000 | 22,000,000 | 22,000,000 | 22,000,000 | 22,000,0 |
| Furniture & fixtures | 1,590,000 | 1,590,000 | 1,590,000 | 1,590,000 | 1,590,000 | 1,590,000 | 1,590,000 | 1,590,000 | 1,590,000 | 1,590,000 | 1,590,0 |
| Office vehicles | 6,180,000 | 6,180,000 | 6,180,000 | 6,180,000 | 6,180,000 | 16,132,952 | 16,132,952 | 16,132,952 | 16,132,952 | 16,132,952 | 16,132,9 |
| Office equipment | 494,000 | 494,000 | 494,000 | 494,000 | 494,000 | 494,000 | 494,000 | 494,000 | 494,000 | 494,000 | 494,0 |
| Total Fixed Assets | 65,230,666 | 64,939,666 | 64,648,666 | 64,357,666 | 64,066,666 | 73,728,618 | 73,437,618 | 73,146,618 | 72,855,618 | 72,564,618 | 72,273,6 |
| Intangible assets | | | | | | | | | | | |
| Pre-operation costs | 2,790,000 | 2,232,000 | 1,674,000 | 1,116,000 | 558,000 | | | | | | |
| Legal, licensing, & training costs | 2,790,000 | 2,232,000 | 1,074,000 | 1,110,000 | 558,000 | - | - | - | - | - | |
| Total Intangible Assets | 2,790,000 | 2,232,000 | 1,674,000 | 1,116,000 | 558,000 | | | | | | |
| TOTAL ASSETS | 70,579,419 | 87,300,102 | 97,157,155 | 104,452,435 | 110,565,940 | 161,404,071 | 215,102,515 | 273,459,938 | 336,746,279 | 405,236,413 | 479,133,8 |
| IOTAL ASSETS | 70,579,419 | 87,300,102 | 97,157,155 | 104,452,435 | 110,565,940 | 161,404,071 | 215,102,515 | 273,459,938 | 336,746,279 | 405,236,413 | 4/9,133,8 |
| Liabilities & Shareholders' Equity | | | | | | | | | | | |
| Current liabilities | | | | | | | | | | | |
| Accounts payable | - | 1,838,489 | 2,063,523 | 2,307,321 | 2,571,303 | 2,849,064 | 2,999,427 | 3,158,119 | 3,325,640 | 3,502,523 | 3,443,9 |
| Export re-finance facility | - | - | - | - | - | - | - | - | - | - | |
| Short term debt | - | - | - | - | - | - | - | - | - | - | |
| Other liabilities | - | - | - | - | - | - | - | - | - | - | |
| Total Current Liabilities | - | 1,838,489 | 2,063,523 | 2,307,321 | 2,571,303 | 2,849,064 | 2,999,427 | 3,158,119 | 3,325,640 | 3,502,523 | 3,443,9 |
| Other liabilities | | | | | | | | | | | |
| Lease payable | - | - | - | - | - | - | - | - | - | - | |
| Deferred tax | - | - | - | _ | _ | - | - | - | - | - | |
| Long term debt | - | - | - | _ | _ | - | - | - | - | - | |
| Total Long Term Liabilities | - | - | - | - | - | - | - | - | - | - | |
| Shareholders' equity | | | | | | | | | | | |
| Paid-up capital | 70,579,419 | 70,579,419 | 70,579,419 | 70,579,419 | 70,579,419 | 70,579,419 | 70,579,419 | 70,579,419 | 70,579,419 | 70,579,419 | 70,579, |
| | /0,5/9,419 | | | | | | | | | | |
| Retained earnings | 70 570 110 | 14,882,194 | 24,514,213 | 31,565,694 | 37,415,217 | 87,975,588 | 141,523,668 | 199,722,399 | 262,841,219 | 331,154,471 | 405,110, |
| Fotal Equity | 70,579,419 | 85,461,613 | 95,093,632 | 102,145,113 | 107,994,637 | 158,555,007 | 212,103,088 | 270,301,819 | 333,420,638 | 401,733,890 | 475,689, |
| FOTAL CAPITAL AND LIABILITIES | 70,579,419 | 87,300,102 | 97,157,155 | 104,452,435 | 110,565,940 | 161,404,071 | 215,102,515 | 273,459,938 | 336,746,279 | 405,236,413 | 479,133, |



1.14 Cash Flow Statement

| Cash Flow Statement | | | | | | | | | | | |
|---|--------------|--------------|--------------|--------------|------------|---------------------|-------------|--------------|-------------|--------------|---------------|
| | | | | | | | | | | | Rs. in actual |
| | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 1 |
| Operating activities | | | | | | | | | | | |
| Net profit | - | 29,764,387 | 34,146,232 | 38,617,176 | 43,264,741 | 50,560,370 | 53,548,081 | 58,198,731 | 63,118,820 | 68,313,252 | 73,956,002 |
| Add: depreciation expense | - | 291,000 | 291,000 | 291,000 | 291,000 | 291,000 | 291,000 | 291,000 | 291,000 | 291,000 | 291,00 |
| amortization expense | - | 558,000 | 558,000 | 558,000 | 558,000 | 558,000 | | | | | |
| Deferred income tax | - | - | - | - | - | - | - | - | - | - | - |
| Accounts receivable | - | (3,082,192) | (184,932) | (384,503) | (414,786) | (447,135) | (350,558) | (243,205) | (255,366) | (268,134) | (281,54 |
| Finished good inventory | - | (3,002,172) | - | (301,303) | - | - | - | (215,205) | (200,000) | (200,151) | (201,5 - |
| Equipment inventory | (34,375) | (6,050) | (6,929) | (7,925) | (9,052) | (6,594) | (7,270) | (8,015) | (8,836) | (9,742) | 104,78 |
| Raw material inventory | (1,742,578) | (306,694) | (351,258) | (401,736) | (458,871) | (334,267) | (368,529) | (406,303) | (447,949) | (493,864) | 5,312,04 |
| Pre-paid building rent | (1,742,578) | (300,074) | (331,238) | (+01,750) | (458,871) | (334,207) | (300,329) | (400,505) | (447,545) | (+25,004) | 5,512,04 |
| Pre-paid lease interest | - | - | - | - | - | - | - | - | - | - | - |
| Advance insurance premium | (281,800) | - | - | - | - | (99,530) | - | - | - | - | 381,33 |
| Advance insurance premium Accounts payable | | 1,838,489 | 225.033 | - 243,799 | - 263,982 | (99,330) 277,761 | 150,363 | - 158,692 | - 167,521 | 176,882 | (58,61 |
| Other liabilities | - | | | 243,799 | | | 150,505 | | 167,521 | | |
| Cash provided by operations | (2.058.753) | - 29.056.941 | - 34.677.147 | 38.915.810 | 43.495.014 | - 50.799.605 | 53,263,087 | - 57.990.900 | 62,865,190 | - 68.009.394 | 79,705,01 |
| <i>inancing activities</i> Change in long term debt 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 | - | - | - | - | - | - | - | - | - | - | - |
| | 70,579,419 | - | - | - | - | - | - | - | - | - | - |
| Purchase of (treasury) shares | - | - | - | - | - | - | - | - | - | - | - |
| Cash provided by / (used for) financing act | 70,579,419 | - | - | - | - | - | - | - | - | - | - |
| vesting activities | | | | | | | | | | | |
| Capital expenditure | (68,020,666) | - | - | - | - | (9,952,952) | - | - | - | - | - |
| Acquisitions | - | - | - | - | - | - | - | - | - | - | - |
| Cash (used for) / provided by investing acti | (68,020,666) | - | - | - | - | (9,952,952) | - | - | - | - | - |
| IET CASH | 500,000 | 29,056,941 | 34,677,147 | 38,915,810 | 43,495,014 | 40,846,654 | 53,263,087 | 57,990,900 | 62,865,190 | 68,009,394 | 79,705,0 |
| | | | | | | | | | | | |
| Cash balance brought forward | | 500,000 | 14,674,747 | 24,837,681 | 32,187,797 | 38,267,593 | 79,114,247 | 132,377,334 | 190,368,234 | 253,233,424 | 321,242,8 |
| Cash available for appropriation | 500,000 | 29,556,941 | 49,351,894 | 63,753,492 | 75,682,811 | 79,114,247 | 132,377,334 | 190,368,234 | 253,233,424 | 321,242,818 | 400,947,8 |
| Dividend | - | 14,882,194 | 24,514,213 | 31,565,694 | 37,415,217 | - | - | - | - | - | - |
| Cash carried forward | 500,000 | 14,674,747 | 24,837,681 | 32,187,797 | 38,267,593 | 79,114,247 | 132,377,334 | 190,368,234 | 253,233,424 | 321,242,818 | 400,947,8 |



KEY ASSUMPTIONS

1.15 Operating Cost Assumptions

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

1.16 Production Cost Assumptions

| Description | Details |
|-----------------------------------|---------|
| Initial Capital utilization | 75% |
| Annual Capital Utilization Growth | 5% |
| Maximum Capital Utilization | 95% |

1.17 Revenue Assumptions

| Description | Details |
|--------------------------------|-------------|
| Revenue | 112,500,000 |
| Cost of goods sold per Ton | 27,175 |
| Sale Price/Ton | 100,000 |
| Production per year (Ton) | 1500 |
| Production Quantity sold (Ton) | 1500 |

1.18 Financial Assumptions

| Description | Details |
|--------------------|---------|
| Interest Rate | 16% |
| Debt: Equity Ratio | 0:100 |
| Debt Tenure | 0Years |

