Pre-feasibility Study

# CUT FLOWER FARM (Gladiolus, Marigold, Statice and Chrysanthemum) 

June 2023

- 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, andrevenues 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
5.1 Production Process Flow ..... 6
5.2 Installed And Operational Capacities ..... 8
6 CRITICAL FACTORS ..... 9
7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT ..... 9
8 POTENTIAL TARGET CUSTOMERS / MARKETS ..... 9
9 PROJECT COST SUMMARY ..... 10
9.1 Project Economics ..... 10
9.2 Project Financing ..... 10
9.3 Project Cost ..... 11
9.4 Space Requirement ..... 11
9.5 MACHINERY \& EQUIPMENT REQUIREMENT. ..... 12
9.6 Furniture \& Fixtures Requirement ..... 12
9.7 Office Equipment Requirement ..... 13
9.8 Human Resource Requirement. ..... 13
9.9 OTHER COSTS ..... 13
9.10 Revenue Generation ..... 13
10 CONTACT DETAILS ..... 14
10.1 MACHINERY SUPPLIERS ..... 14
11 USEFUL WEB LINKS ..... 14
12 ANNEXURES ..... 16
12.1 Income Statement ..... 16
12.2 Balance Sheet ..... 17
12.3 Cash Flow Statement ..... 18
13 KEY ASSUMPTIONS ..... 19
13.1 OPERATING Cost Assumptions. ..... 19
13.2 Production Cost Assumptions ..... 19
13.3 Revenue Assumptions ..... 19
13.4 Financial Assumptions. ..... 19

## 1 DISCLAIMER

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## Document Control

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## 2 EXECUTIVE SUMMARY

Floriculture is a horticultural discipline concerned with the cultivation and management of desirable plants, particularly blooming plants. Different varieties of flowers are produced in floriculture farms to be sold in the market as potted or cut flowers. The demand for cut flowers has expanded dramatically over the last two decades. The main reason for the increase in demand for cut flowers is the increased use of cut flowers for weddings, birthday celebrations, office/home decorating, and changes in people's lifestyles. Customers are increasingly looking for high-quality flowers. Similarly, demand for bouquets and new species and colors of cut flowers are constantly increasing. Aside from rising demand, the country's favorable climate offers further advantages for investment in the floriculture business. Floriculture crops have a higher price in comparison to other agricultural products, and their product cycle tends to be short. When compared to other conventional crops, this results in a substantially higher net profit margin.

The concept of Floriculture is rather not new in Pakistan; however, farming in accordance with international standards seems very keen to make it popular in the market, which surely will be a huge success.

CUT FLOWER FARM is proposed to be located at any agriculturally productive area throughout Pakistan, but a rather dry and cool climate provides superior growing chances for cut flower development. Location of the farm will play a vital role in its success, area adjacent to metropolitan cities with higher population density likewise Mastung, Kalat, Pishin, Killa Saifullah, Ziarat, Quetta, Karachi, Lahore, Peshawar and Multan are few regions advised for starting such farm.

The finished Product would include Gladiolus, Statice, Chrysanthemum and Marigold flower varieties mainly sold to middle men by the farms however the product may also be sold to end customers likewise event organizers which uses flowers for special occasions as wedding, social and religious décor.

The established farm will have the Capacity to produce $\mathbf{1 0 8 , 0 0 0}$ units of the product Gladiolus, Statice, Chrysanthemum and Marigold distribution as 54000, 30000, 16000 and 8000 respectively and will initially operate at $\mathbf{9 0 \%}$ capacity utilization.

Total Cost Estimates is Rs. 11,758,400 with fixed investment Rs. 10,912,800 and working capital Rs. 845,600.

Given the cost assumptions IRR and payback are $\mathbf{3 3 \%}$ and 4.19 years respectively


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

- Farming should be done in accordance with International standards and scientific grounds moreover input requirements and pest management technique should also be taken into consideration.
- Location of the unit would play vital role in this projects success.
- Establishment of farm in area where basic infrastructure including water and electricity are available.
- Marketing through proper channels could attract more customers moreover awareness about the product should be taken into consideration while marketing the product.
- Procurement of raw material from trusted suppliers and below market rates.
- Human resource would play vital role in manufacturing henceforth well trained staff would be required to run the project successfully.
- Producer should be aware of the ever-changing fashion of flower colors and variety.
- It is necessary to pay close attention to healthy and certified seeds, ground preparation, planting pattern, water management, fertilizer application, and marketing.


## 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 'sectorial 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 Cut Flower Farm 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

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

- Technology: The proposed farm is likely to be equipped with modern equipment's including shovels, pickaxes and cart etc. However constant efforts may be made for up gradation of the equipment.
- Location: The production unit is proposed to be located adjacent to metropolitan cities like Karachi, Lahore, Peshawar, and Quetta and at location where population density is high.
- Product: The farm would produce a product mix of Gladiolus, Statice, Chrysanthemum and Marigold varieties.
- Target Market: In addition to local markets in Karachi, Lahore, Quetta and Islamabad an enormous export market for the products exists in UAE and other neighbouring countries.
- Employment Generation: The proposed project will provide employment opportunity to 10 people. Financial analysis shows the unit would be profitable from the very first year of operation.


### 5.1 Production Process Flow

I. Land / Field Preparation: The preparation of land / field is the first phase in the development of a cut flower farm. First and foremost, the field must be leveled. Water supply will also necessitate the installation of small canals. The ideal way to divide the field is to divide it into parallel cut flower fields with water canals on
one side and a driveway on the other. As a result, the water canal will irrigate the fields on both sides, as will roadways. Wind can also cause damage to the flowers to protect the site from wind breaking trees or shrubs should be grown around the farm. Artificial windbreaks can also be used if there is a danger of competition between trees and flowers for available moisture and nutrients. Building and other infrastructure is also required for the production of cut flowers which are described in detail in a separate heading. Bed preparation depends upon the variety of the flowers. If the plants are tall and have dense foliage, the flowerbed should be narrower since inadequate sunlight will access the center of the flowerbed, resulting in poor plant growth. Workers can easily reach 2 feet into a flowerbed to perform a proper cut and remove the flower without causing any damage to the crop. As a result, the flowerbeds will not be broader than 4 feet.
II. Planting: Planting time varies with the variety of the cut flower. Planting time of different varieties of cut flowers for selected locations in Balochistan is provided in the following planting and harvesting table.

| Months | Gladioli <br> (Gladiolus) | Marigold <br> (Ganda) | Statice | Chrysanthemum <br> (Gul-e- Daudi) |
| :--- | :--- | :--- | :--- | :--- |
| Jan |  | Seed in Nursery | Seed in <br> Nursery |  |
| Feb |  | Corms | Seed in beds <br> after 15th March | Seed | | Seed / Cutting |
| :--- |
| Nursery |$|$| Mar | Seedling shifting | Seed/ Seedling <br> shifting | Seed / Cutting <br> Nursery |  |
| :--- | :--- | :--- | :--- | :--- |
| April | Corms | hay | Corms | harvest + 2 1⁄2 <br> Months |
| June | Harvest + 3 <br> months | Harvest + 2 <br> months | Hansfer to Beds |  |
| July | Harvest | Harvest | Harvest |  |
| Aug | Harvest | Harvest | Harvest |  |
| Sep |  |  |  | Harvest +6 <br> Months |
| Oct |  |  |  |  |
| Nov |  |  |  |  |
| Dec |  |  |  |  |

It is recommended that plantation should be done in batches with some time interval which will ensure availability of products throughout the growing season.

Planting density changes with the plant types and varieties. The plant to plant and row to row distance for the recommended varieties is provided in the Table: Row and Plant Distance.


|  | Gladioli <br> (Gladiolus) | Marigold <br> (Ganda) | Statice | Chrysanthemum <br> (Gul-e- Daudi) |
| :--- | :--- | :--- | :--- | :--- |
| Plant <br> Distance | $6^{\prime \prime}$ to $9 "$ | $15^{\prime \prime}$ to $18^{\prime \prime}$ | $12^{\prime \prime}$ to $15^{\prime \prime}$ | $12^{\prime \prime}$ to $18^{\prime \prime}$ |
| Row <br> Distance | $12^{\prime \prime}$ to $18^{\prime \prime}$ | $18^{\prime \prime}$ to $24^{\prime \prime}$ | $15^{\prime \prime}$ to $18^{\prime \prime}$ | $16^{\prime \prime}$ to 24" |
| Plants / <br> Acre | $40,000-$ | $10,000-$ | $20,000-$ | $20,000-28,000$ |
| 50,000 | 15,000 | 28,000 |  |  |

III. Watering: Most of the cut flower requires water on weekly basis. Water should be provided by analyzing the condition of the soil by looking at dampness. For best results micro irrigation system can be used which causes minimum damage to the shoot and flower. Given the importance of water for cut flower production it is recommended that the farm should have its own water source e.g a well or a tube well.
IV. Harvesting: Since cut flowers have a very perishable nature, therefore, they are normally harvested a few days before full bloom to increase their shelf life. Harvesting the flowers early in the morning also helps in keeping the freshness and hence increases shelf life. Knives and shears should be kept sharp to ensure that stems are cut evenly and not crushed as crushed stems restrict the ability of flowers to take up water, thereby reducing their vase life. That's why workers should take care so that their output is of high quality. Harvesting calendar is provided in the above Plantation and Harvest Calendar:

## Flow <br> Process <br> for <br> Picking:

The Flower picking process will be as under;

1. Picking early morning
2. Washing in clean water
3. Treatment with life enhancing solution
4. Drying with natural air
5. Visual inspection
6. Packing in wooden/ cardboard boxes
7. distribution

### 5.2 Installed And Operational Capacities

The proposed farm is set to operate at $90 \%$ at capacity utilization initially and shall increase its production by $5 \%$ yearly. The proposed farm is set to produce 108,000 flowers per year.


## 6 CRITICAL FACTORS

- Trained and specialized human resource should be hired which would play vital role in project's success.
- Continuous efforts should be made to upgrade technology.
- Price may be adjusted in accordance to the segment targeted moreover price would play vital role in success of the project.
- The product may be farmed using seeds for different colors based on market demand and developments of new trends.
- Product should be farmed in accordance with international standards and scientific standing.
- Purchase of raw material likewise seeds should be procured from trusted suppliers and below market prices, which would play a vital role in projects success and may provide competitive advantage over competitors
- Location of the unit would play a vital role in projects success.
- In future the flowers may enhanced or modified in accordance to market demand therefore special attention should be paid to market developments.


## 7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Big cities with growing middle income group such as Karachi, Islamabad, Quetta, Lahore, and Peshawar are some of the prospective cities for setting up this business. Cities like Lahore and Karachi with high population are favorable for this project.

## 8 POTENTIAL TARGET CUSTOMERS / MARKETS

Since the floriculture sector in Pakistan is not highly developed there are great variations in the production and consumption cycle of cut flowers. The production cycle is especially dependent upon the natural environment and weather play a major role in the total production. Similarly, the consumption cycle is determined by the marriages, religious occasions and political occasions. Besides retail outlets the major buyers are corporate and institutional customers. These include hotels, offices and most importantly party decorators and marriage halls. All these institutional as well as corporate customers are fed by wholesale dealers and distributors. They buy in bulk quantities.


## 9 PROJECT COST SUMMARY

### 9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 10.0116 million in the year one. The capacity utilization during year one is worked out at $90 \%$ with $5 \%$ increase in subsequent years up to the maximum capacity utilization of $100 \%$.

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.) | 4.19 |
| Net Present Value (Rs.) | $4,853,035$ |

### 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 $(100 \%)$ | Rs. $11,758,400$ |
| Bank Loan $(0 \%)$ | Rs. |
| Markup to the Borrower (\%age / annum) | - |
| Tenure of the Loan (Years) | 10 |



### 9.3 Project Cost

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

Table 3: Project Cost

|  | Description |
| :--- | ---: |
| Capital Cost | Amount Rs. |
| Land |  |
| Building/Infrastructure | $4,409,200$ |
| Machinery and equipment | $3,297,600$ |
| Furniture \& Fixture | $2,700,000$ |
| Office Equipment | 375,000 |
| Total Capital Cost | 131,000 |
| Working Capital | $\mathbf{1 0 , 9 1 2 , 8 0 0}$ |
| Raw Material Inventory |  |
| Upfront insurance payment | 210,600 |
| Cash | 135,000 |
| Total Working Capital | 500,000 |
| Total Project Cost | $\mathbf{8 4 5 , 6 0 0}$ |

### 9.4 Space Requirement

The space requirement for the proposed Cut Flower Farm 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 Requirment

| Description | Estimated Area <br> (Sq.ft) | Unit Cost (Rs.) | Total Cost <br> (Rs.) |
| :--- | :---: | :---: | :---: |
| Office |  | 224 | 2,200 |


| packing shed | 224 | 1,500 | 336,000 |
| :--- | :---: | :---: | :---: |
| Store | 256 | 1,800 | 460,800 |
| servant room | 224 | 2,000 | 448,000 |
| Nursery | 1,200 | 1,300 | $1,560,000$ |
| farm land 4 acre | 174,240 | - |  |
| Total | $\mathbf{1 7 6 , 3 6 8}$ |  | $\mathbf{3 , 2 9 7 , 6 0 0}$ |

### 9.5 Machinery \& Equipment Requirement

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

## Table 5: Machinery \& Equipment

| Description | Quantity | Unit Cost | Total Cost <br> (Rs.) |
| :--- | :---: | :---: | :---: |
| (Rs.) |  |  |  |
| Tube well | 1 | $2,500,000$ | $2,500,000$ |
| Farm equipment shovels, pickaxe, cutter, <br> cart etc. | 1 | 200,000 | 200,000 |
| Total |  |  | $\mathbf{2 , 7 0 0 , 0 0 0}$ |

### 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 <br> (Rs.) | Total Cost <br> (Rs.) |
| :--- | :---: | :---: | :---: |
| Furniture(lump sum) | 1 | 150,000 | 150,000 |
| Electric wiring \& lighting(lump sum) | 1 | 100,000 | 100,000 |
| Air conditioners.(1.5 ton) | 1 | 125,000 | 125,000 |
| Total |  |  | $\mathbf{3 7 5 , 0 0 0}$ |



### 9.7 Office Equipment Requirement

Following office equipment will be required for Cut Flower Farm;

Table 7: Office Equipment

| Description | Quantity | Unit Cost <br> (Rs.) | Total Cost <br> (Rs.) |
| :--- | :---: | :---: | ---: |
| Computers | 2 | 50,000 | 100,000 |
| Printer with scanner | 1 | 25,000 | 25,000 |
| Telephone set | 1 | 6,000 | 6,000 |
| Total |  |  | $\mathbf{1 3 1 , 0 0 0}$ |

### 9.8 Human Resource Requirement

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

Table 8: Human Resource Requirment

| Description | No. of Employees | Monthly Salary per <br> person (Rs.) |
| :--- | :---: | :---: |
| Supervisor | 1 | 28000 |
| Farm workers (Mali) | 4 | 26000 |
| labor | 5 | 25000 |
| Total | $\mathbf{1 0}$ |  |

## 9.9 other costs

The promotional expense being essential for marketing of Cut Flower Farm is estimated as $1 \%$ of revenue expenses which is estimated to be Rs. 100,116 in first year of operations.

### 9.10 Revenue Generation

Based on the capacity utilization of $90 \%$, respectively, sales revenue during the first year of operations is estimated as under;


Table 9: Revenue Generation - Year 1

| Description | No. of Units <br> Produced <br> (No.) | Finished <br> Goods <br> Inventory <br> (No.) | Units <br> available <br> for Sale <br> (No.) | Sale Price <br> / unit (Rs.) | Sales <br> Revenue <br> (Rs.) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Flowers | 97,200 | - | 97,200 | 103 | $10,011,600$ |
| Total |  |  |  |  | $\mathbf{1 0 , 0 1 1 , 6 0 0}$ |

## 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 <br> Supplier | Address | Phone | E-mail | Website |
| :---: | :---: | :---: | :---: | :---: |
| Al Manzar <br> Seed <br> Corporation | Mirpurkhas | $0300-3300996$, <br> $0331-3730984$ |  |  |
| Mian Junaid | H-no-r- <br> 226,MADINA | +92597602576 |  |  |
| MASJID STR., |  | - |  |  |
| Shuja Seed <br> ATTOCK CITY | Hyderabad | 03022777493 |  | - |
| Corporation |  |  | - | - |

## 11 USEFUL WEB LINKS

| Small \& Medium Enterprises Development Authority (SMEDA) | www.smeda.org.pk |
| :--- | :--- |
| Government of Pakistan | $\underline{\text { www.pakistan.gov.pk }}$ |
| Ministry of Industries \& Production | www.moip.gov.pk |
| Ministry of Education, Training \& Standards in Higher Education | $\underline{\text { http://moptt.gov.pk }}$ |
| Government of Punjab | $\underline{\text { www.punjab.gov.pk }}$ |
| Government of Sindh | $\underline{\text { www.sindh.gov.pk }}$ |
| Government of Khyber Pakhtunkhwa | $\underline{\text { www.khyberpakhtunkhwa.gov.pk }}$ |
| Government of Balochistan | www.balochistan.gov.pk |


| Government of Gilgit Baltistan | $\underline{w w w . g i l g i t b a l t i s t a n . g o v . p k ~}$ |
| :--- | :--- |
| Government of Azad Jamu Kashmir | $\underline{\text { www.ajk.gov.pk }}$ |
| Trade Development Authority of Pakistan (TDAP) | $\underline{\text { www.tdap.gov.pk }}$ |
| Security Commission of Pakistan (SECP) | $\underline{\text { www.secp.gov.pk }}$ |
| Federation of Pakistan Chambers of Commerce and Industry (FPCCI) | $\underline{\text { www.fpcci.com.pk }}$ |
| State Bank of Pakistan (SBP) | $\underline{\text { www.sbp.org.pk }}$ |
| Punjab Small Industries Corporation | $\underline{\text { www.psic.gop.pk }}$ |
| Sindh Small Industries Corporation | $\underline{\text { www.ssic.gos.pk }}$ |
| Pakistan Horticulture Development and Export Company (PHDEC) | $\underline{\text { www.phdec.org.pk }}$ |
| Punjab Vocational Training Council (PVTC) | www.pvtc.gop.pk |
| Technical Education and Vocational Training Authority (TEVTA) | $\underline{\text { www.tevta.org }}$ |
| Pakistan Readymade Garment Technical Training Institute | www.prgmea.org/prgtti/ |
| Livestock \& Dairy Development Department, Government of Punjab. | $\underline{\text { www.livestockpunjab.gov.pk }}$ |
| Punjab Industrial Estates (PIE) | $\underline{\text { www.pie.com.pk }}$ |
| Faisalabad Industrial Estate Development and Management <br> Company (FIEDMC) | $\underline{\text { www.fiedmc.com.pk }}$ |

## 12 ANNEXURES

### 12.1 Income Statement

| Statement Summaries <br> Income Statement | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | SMIEDA <br> Rs. in actuals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  | Year 9 | Year 10 |
| Revenue | 10,011,600 | 11,941,614 | 14,204,236 | 16,050,786 | 18,137,388 | 20,495,249 | 23,159,631 | 26,170,383 | 29,572,533 | 33,416,963 |
| Cost of goods sold | 8,138,400 | 8,840,160 | 9,591,750 | 10,071,338 | 10,574,904 | 11,103,650 | 11,658,832 | 12,241,774 | 12,853,862 | 13,496,555 |
| Gross Profit | 1,873,200 | 3,101,454 | 4,612,486 | 5,979,449 | 7,562,484 | 9,391,599 | 11,500,799 | 13,928,610 | 16,718,671 | 19,920,407 |
| General administration \& selling expenses |  |  |  |  |  |  |  |  |  |  |
| Administration expense | - | - | - | - | - | - | - | - | - | - |
| Rental expense | - | - | - | - | - | - | - | - | - | - |
| Utilities expense | - | - | - | - | - | - | - | - | - | - |
| Travelling \& Comm. expense (phone, fax, etc.) | - | - | - | - | - | - | - | - | - | - |
| Office vehicles running expense | - | - | - | - | - | - | - | - | - | - |
| Office expenses (stationary, etc.) | - | - | - | - | - | - | - | - | - | - |
| Promotional expense | 100,116 | 119,416 | 142,042 | 160,508 | 181,374 | 204,952 | 231,596 | 261,704 | 295,725 | 334,170 |
| Insurance expense | 135,000 | 121,500 | 108,000 | 94,500 | 81,000 | 67,500 | 54,000 | 40,500 | 27,000 | 13,500 |
| Professional fees (legal, audit, etc.) | 100,116 | 119,416 | 142,042 | 160,508 | 181,374 | 204,952 | 231,596 | 261,704 | 295,725 | 334,170 |
| Depreciation expense | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 |
| Amortization expense | - | - | - | - | - | - | - | - | - | - |
| Property tax expense | - | - | - | - | - | - | - | - | - | - |
| Miscellaneous expense | 300,348 | 358,248 | 426,127 | 481,524 | 544,122 | 614,857 | 694,789 | 785,112 | 887,176 | 1,002,509 |
| Subtotal | 1,561,980 | 1,644,981 | 1,744,612 | 1,823,439 | 1,914,269 | 2,018,662 | 2,138,382 | 2,275,419 | 2,432,027 | 2,610,748 |
| Operating Income | 311,220 | 1,456,473 | 2,867,874 | 4,156,009 | 5,648,215 | 7,372,937 | 9,362,418 | 11,653,191 | 14,286,644 | 17,309,659 |
| Other income | 128,551 | 324,682 | 590,506 | 934,057 | 1,381,863 | 1,948,634 | 2,656,425 | 3,536,635 | 4,619,230 | 5,968,465 |
| Gain / (loss) on sale of assets | - | - | - | - | - | - | - | - | - | - |
| Earnings Before Interest \& Taxes | 439,771 | 1,781,156 | 3,458,380 | 5,090,066 | 7,030,078 | 9,321,571 | 12,018,843 | 15,189,826 | 18,905,874 | 23,278,123 |
| Interest expense | - | - | - | - | - | - | - | - | - | - |
| Earnings Before Tax | 439,771 | 1,781,156 | 3,458,380 | 5,090,066 | 7,030,078 | 9,321,571 | 12,018,843 | 15,189,826 | 18,905,874 | 23,278,123 |
| Tax | 180,306 | 730,274 | 1,417,936 | 2,086,927 | 2,882,332 | 3,821,844 | 4,927,726 | 6,227,829 | 7,751,409 | 9,544,031 |
| NET PROFIT/(LOSS) AFTER TAX | 259,465 | 1,050,882 | 2,040,444 | 3,003,139 | 4,147,746 | 5,499,727 | 7,091,117 | 8,961,997 | 11,154,466 | 13,734,093 |
| Balance brought forward |  | 259,465 | 1,310,347 | 3,350,791 | 6,353,930 | 10,501,676 | 16,001,403 | 23,092,520 | 32,054,517 | 43,208,983 |
| Total profit available for appropriation | 259,465 | 1,310,347 | 3,350,791 | 6,353,930 | 10,501,676 | 16,001,403 | 23,092,520 | 32,054,517 | 43,208,983 | 56,943,076 |
| Dividend | - | - | - | - | - | - | - | - | - | - |
| Balance carried forward | 259,465 | 1,310,347 | 3,350,791 | 6,353,930 | 10,501,676 | 16,001,403 | 23,092,520 | 32,054,517 | 43,208,983 | 56,943,076 |
| June 2023 |  |  |  | - |  | EDA |  |  |  |  |

### 12.2 Balance Sheet

| Statement Summaries Balance Sheet | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | SMIEDA <br> Rs. in actuals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  | Year 10 |
| Assets |  |  |  |  |  |  |  |  |  |  |  |
| Current assets |  |  |  |  |  |  |  |  |  |  |  |
| Cash \& Bank | 500,000 | 2,071,018 | 4,422,631 | 7,387,491 | 11,293,648 | 16,343,609 | 22,629,080 | 30,499,421 | 40,233,285 | 52,151,320 | 67,217,971 |
| Accounts receivable | - | 137,145 | 150,364 | 179,081 | 207,226 | 234,166 | 264,607 | 299,006 | 337,877 | 381,801 | 431,435 |
| Finished goods inventory | - | - | - | - | - | - | - | - | - | - | - |
| Equipment spare part inventory | - | - | - | - | - | - | - | - | - | - | - |
| Raw material inventory | 210,600 | 245,086 | 284,428 | 313,582 | 345,725 | 381,161 | 420,230 | 463,304 | 510,793 | 563,149 | - |
| Pre-paid annual land lease | - | - | - | - | - | - | - | - | - | - | - |
| Pre-paid building rent | - | - | - | - | - | - | - | - | - | - | - |
| Pre-paid lease interest | - | - | - | - | - | - | - | - | - | - | - |
| Pre-paid insurance | 135,000 | 121,500 | 108,000 | 94,500 | 81,000 | 67,500 | 54,000 | 40,500 | 27,000 | 13,500 | - |
| Total Current Assets | 845,600 | 2,574,749 | 4,965,424 | 7,974,654 | 11,927,599 | 17,026,436 | 23,367,917 | 31,302,231 | 41,108,955 | 53,109,769 | 67,649,406 |
| Fixed assets |  |  |  |  |  |  |  |  |  |  |  |
| Land | 4,409,200 | 3,968,280 | 3,527,360 | 3,086,440 | 2,645,520 | 2,204,600 | 1,763,680 | 1,322,760 | 881,840 | 440,920 | - |
| Building/Infrastructure | 3,297,600 | 3,132,720 | 2,967,840 | 2,802,960 | 2,638,080 | 2,473,200 | 2,308,320 | 2,143,440 | 1,978,560 | 1,813,680 | 1,648,800 |
| Machinery \& equipment | 2,700,000 | 2,430,000 | 2,160,000 | 1,890,000 | 1,620,000 | 1,350,000 | 1,080,000 | 810,000 | 540,000 | 270,000 | - |
| Furniture \& fixtures | 375,000 | 337,500 | 300,000 | 262,500 | 225,000 | 187,500 | 150,000 | 112,500 | 75,000 | 37,500 | - |
| Office vehicles | - | - | - | - | - | - | - | - | - | - | - |
| Office equipment | 131,000 | 117,900 | 104,800 | 91,700 | 78,600 | 65,500 | 52,400 | 39,300 | 26,200 | 13,100 | - |
| Total Fixed Assets | 10,912,800 | 9,986,400 | 9,060,000 | 8,133,600 | 7,207,200 | 6,280,800 | 5,354,400 | 4,428,000 | 3,501,600 | 2,575,200 | 1,648,800 |
| Intangible assets |  |  |  |  |  |  |  |  |  |  |  |
| Pre-operation costs | - | - | - | - | - | - | - | - | - | - | - |
| Legal, licensing, \& training costs | - | - | - | - | - | - | - | - | - | - | - |
| Total Intangible Assets | - | - | - | - | - | - | - | - | - | - | - |
| TOTAL ASSETS | 11,758,400 | 12,561,149 | 14,025,424 | 16,108,254 | 19,134,799 | 23,307,236 | 28,722,317 | 35,730,231 | 44,610,555 | 55,684,969 | 69,298,206 |
| Liabilities \& Shareholders' Equity |  |  |  |  |  |  |  |  |  |  |  |
| Current liabilities |  |  |  |  |  |  |  |  |  |  |  |
| Accounts payable | - | 362,978 | 403,177 | 445,563 | 468,969 | 493,661 | 519,714 | 547,211 | 576,238 | 606,886 | 596,730 |
| Export re-finance facility | - | - | - | - | - | - | - | - | - | - | - |
| Short term debt | - | - | - | - | - | - | - | - | - | - | - |
| Other liabilities | - | - | - | - | - | - | - | - | - | - | - |
| Total Current Liabilities | - | 362,978 | 403,177 | 445,563 | 468,969 | 493,661 | 519,714 | 547,211 | 576,238 | 606,886 | 596,730 |
| Other liabilities |  |  |  |  |  |  |  |  |  |  |  |
| Lease payable | - | - | - | - | - | - | - | - | - | - | - |
| Deferred tax | - | 180,306 | 553,500 | 553,500 | 553,500 | 553,500 | 442,800 | 332,100 | 221,400 | 110,700 | 0 |
| Long term debt | - | - | - | - | - | - | - | - | - | - | - |
| Total Long Term Liabilities | - | 180,306 | 553,500 | 553,500 | 553,500 | 553,500 | 442,800 | 332,100 | 221,400 | 110,700 | 0 |
| Shareholders' equity |  |  |  |  |  |  |  |  |  |  |  |
| Paid-up capital | 11,758,400 | 11,758,400 | 11,758,400 | 11,758,400 | 11,758,400 | 11,758,400 | 11,758,400 | 11,758,400 | 11,758,400 | 11,758,400 | 11,758,400 |
| Retained earnings | - | 259,465 | 1,310,347 | 3,350,791 | 6,353,930 | 10,501,676 | 16,001,403 | 23,092,520 | 32,054,517 | 43,208,983 | 56,943,076 |
| Total Equity | 11,758,400 | 12,017,865 | 13,068,747 | 15,109,191 | 18,112,330 | 22,260,076 | 27,759,803 | 34,850,920 | 43,812,917 | 54,967,383 | 68,701,476 |
| TOTAL CAPITAL AND LIABILITI | 11,758,400 | 12,561,149 | 14,025,424 | 16,108,254 | 19,134,799 | 23,307,236 | 28,722,317 | 35,730,231 | 44,610,555 | 55,684,969 | 69,298,206 |

### 12.3 Cash Flow Statement

| Statement Summaries Cash Flow Statement | Year 0 | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | SMEDA <br> Rs. in actuals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | Year 9 | Year 10 |
| Operating activities |  |  |  |  |  |  |  |  |  |  |  |
| Net profit | - | 259,465 | 1,050,882 | 2,040,444 | 3,003,139 | 4,147,746 | 5,499,727 | 7,091,117 | 8,961,997 | 11,154,466 | 13,734,093 |
| Add: depreciation expense | - | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 | 926,400 |
| amortization expense | - | - | - | - | - | - | - | - | - | - | - |
| Deferred income tax | - | 180,306 | 373,194 | - | - | - | $(110,700)$ | $(110,700)$ | $(110,700)$ | $(110,700)$ | $(110,700)$ |
| Accounts receivable | - | $(137,145)$ | $(13,219)$ | $(28,717)$ | $(28,145)$ | $(26,939)$ | $(30,442)$ | $(34,399)$ | $(38,871)$ | $(43,924)$ | $(49,634)$ |
| Finished good inventory | - | - | - | - | - | - | - | - | - | - | - |
| Equipment inventory | - | - | - | - |  |  |  |  |  | - | - |
| Raw material inventory | $(210,600)$ | $(34,486)$ | $(39,343)$ | $(29,154)$ | $(32,142)$ | $(35,437)$ | $(39,069)$ | $(43,074)$ | $(47,489)$ | $(52,356)$ | 563,149 |
| Pre-paid building rent | - | - | - | - | - | - | - | - | - | - | - |
| Pre-paid lease interest | - | ${ }^{-}$ | ${ }^{-}$ | - | ${ }^{-}$ | ${ }^{-}$ | ${ }^{-}$ | - | - | - | - |
| Advance insurance premium | $(135,000)$ | 13,500 | 13,500 | 13,500 | 13,500 | 13,500 | 13,500 | 13,500 | 13,500 | 13,500 | 13,500 |
| Accounts payable | - | 362,978 | 40,199 | 42,386 | 23,406 | 24,692 | 26,054 | 27,497 | 29,027 | 30,649 | $(10,156)$ |
| Other liabilities | - | - | - | - | - | - | - | - | - | - | - |
| Cash provided by operations | $(345,600)$ | 1,571,018 | 2,351,613 | 2,964,859 | 3,906,158 | 5,049,961 | 6,285,470 | 7,870,341 | 9,733,864 | 11,918,034 | 15,066,652 |
| Financing activities |  |  |  |  |  |  |  |  |  |  |  |
| 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 | 11,758,400 | - | - | - | - | - | - | - | - | - | - |
| Purchase of (treasury) shares | - | - | - | - | - | - | - | - | - | - | - |
| Cash provided by / (used for) financ | 11,758,400 | - | - | - | - | - | - | - | - | - | - |
| Investing activities |  |  |  |  |  |  |  |  |  |  |  |
| Capital expenditure | (10,912,800) | - | - | - | - | - | - | - | - | - | - |
| Acquisitions | - | - | - | - | - | - | - | - | - | - | - |
| Cash (used for) / provided by invest | (10,912,800) | - | - | - | - | - | - | - | - | - | - |
|  |  |  |  |  |  |  |  |  |  |  |  |
| NET CASH | 500,000 | 1,571,018 | 2,351,613 | 2,964,859 | 3,906,158 | 5,049,961 | 6,285,470 | 7,870,341 | 9,733,864 | 11,918,034 | 15,066,652 |
| Cash balance brought forward |  | 500,000 | 2,071,018 | 4,422,631 | 7,387,491 | 11,293,648 | 16,343,609 | 22,629,080 | 30,499,421 | 40,233,285 | 52,151,320 |
| Cash available for appropriation | 500,000 | 2,071,018 | 4,422,631 | 7,387,491 | 11,293,648 | 16,343,609 | 22,629,080 | 30,499,421 | 40,233,285 | 52,151,320 | 67,217,971 |
| Dividend | , | , | , | - | , | , | - | , | - | , | - |
| Cash carried forward | 500,000 | 2,071,018 | 4,422,631 | 7,387,491 | 11,293,648 | 16,343,609 | 22,629,080 | 30,499,421 | 40,233,285 | 52,151,320 | 67,217,971 |
| June 2023 |  |  |  |  |  |  |  |  |  |  |  |

## 13 KEY ASSUMPTIONS

### 13.1 Operating Cost Assumptions

| Description | Details |
| :--- | ---: | ---: |
| Operational days per year | 330 |
| Operational hours per day | 8 |
| Shifts per day | 1 |

### 13.2 Production Cost Assumptions

| Description | Details |  |
| :--- | ---: | :---: |
| Production capacity utilization in year 1 |  |  |
| Production capacity growth rate |  |  |
| Maximum capacity utilization |  |  |

### 13.3 Revenue Assumptions

| Description | Details |  |
| :--- | ---: | ---: |
| Production Units Year 1 | 97,200 |  |
| Sale price per unit | 103 |  |
| COGs | 52 |  |

### 13.4 Financial Assumptions

| Description | Details |  |
| :--- | ---: | :---: |
| Interest rate |  |  |
| Debt : Equity Ratio |  |  |
| Project Life (Years) | $0: 100$ |  |

# Small and Medium Enterprises Development Authority HEAD OFFICE 

4th Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road, Lahore Tel: $(9242) 111111$ 456, Fax: $(9242)$ 36304926-7

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

| REGIONAL OFFICE | REGIONAL OFFICE | REGIONAL OFFICE | REGIONAL OFFICE |
| :---: | :---: | :---: | :---: |
| PUNJAB | SINDH | KPK | BALOCHISTAN |
| $3^{\text {rd }}$ Floor, Building No. 3, | $5^{\text {TH }}$ Floor, Bahria |  |  |
| Aiwan-e-Iqbal Complex, | Complex II, M.T. Khan Road, | State Life Building | Bungalow No. 15-A |
| Egerton Road Lahore, | Karachi. | The Mall, Peshawar. | Chaman Housing Scheme |
| Tel: (042) 111-111-456 | Tel: $(021) 111-111-456$ | Tel: $(091) 9213046-47$ | Tel: $(081) 831623,831702$ |
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