## Pre-Feasibility Study

## CUT FLOWERS FARM

## (Roses)



SMEDA

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

www.smeda.org.pk
HEAD OFFICE
4th Floor, Building No. 3, Aiwan-e-Iqbal Complex, Egerton Road, Lahore
Tel: (92 42) 111111456 , Fax: $(9242) 36304926-7$
helpdesk@smeda.org.pk

| REGIONAL OFFICE | REGIONAL OFFICE | REGIONAL OFFICE | REGIONAL OFFICE |
| :---: | :---: | :---: | :---: |
| PUNJAB | SINDH | KPK | BALOCHISTAN |

## DISCLAIMER

The purpose and scope of this information memorandum is to introduce the subject matter and provide a general idea and information on the said area. All the material included in this document is based on data/information gathered from various sources and is based on certain assumptions. 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 does not assume any liability for any financial or other loss resulting from this memorandum in consequence of undertaking this activity. Therefore, the content of this memorandum should not be relied upon for making any decision, investment or otherwise. The prospective user of this memorandum is encouraged to carry out his/ her own due diligence and gather any information he/she considers necessary for making an informed decision.

The contents of the information memorandum do not bind SMEDA in any legal or other form.

## DOCUMENT CONTROL

| Document No. | PREF-27 |
| :--- | :--- |
| Revision | 2 |
| Prepared by | SMEDA-Punjab |
| Issue Date | October 5, 2001 |
| Revision Date | December, 2006 |
| Issued by | Library Officer |

1 INTRODUCTION TO SMEDA ..... 4
2 PURPOSE OF THE DOCUMENT ..... 4
3 PROJECT PROFILE ..... 4
3.1 Project Brief ..... 5
3.2 Project Rationale ..... 5
4 PROCESS FLOW CHART ..... 6
5 VIABLE ECONOMIC SIZE ..... 6
6 CURRENT INDUSTRY STRUCTURE ..... 6
7 SALES \& MARKETING ISSUES ..... 7
8 FARM INPUTS ..... 8
8.1 Land ..... 8
8.2 Flower Plants ..... 8
8.3 Water ..... 9
8.4 Labor ..... 9
8.5 Pesticide Sprays ..... 9
8.6 Fertilizers ..... 10
8.7 Building \& Shed ..... 10
8.8 Farm Fixtures \& Tools ..... 10
8.9 Packing ..... 10
8.10 Transportation ..... 11
9 OUTPUT ..... 11
10 OVERALL PICTURE ..... 11
11 GENERAL FACTS \& FIGURES ..... 12
12 FINANCIAL ANALYSIS ..... 12
12.1 Capital Investment ..... 12
12.2 Working Capital ..... 12
12.3 Initial Financing ..... 12
13 REGULATION ..... 13
14 KEY SUCCESS FACTORS ..... 13
15 THREATS ..... 13
16 ASSUMPTIONS ..... 13
17 FINANCIAL STATEMENTS ..... 14

## 1 INTRODUCTION TO SMEDA

The Small and Medium Enterprise Development Authority (SMEDA) was established with the objective to provide fresh impetus to the economy through the launch of an aggressive SME support program.

Since its inception in October 1998, SMEDA adopted a sectoral SME development approach where key sectors were selected on the criterion of SME presence. In depth research was conducted and comprehensive development plans were formulated after identification of impediments and retardants. The all-encompassing sectoral development strategy involved overhauling of the regulatory environment by taking into consideration other important aspects including finance, marketing, technology and human resource development.

SMEDA has so far successfully formulated strategies for key sectors including, Fruits \& Vegetables, Marble \& Granite, Gems \& Jewelry, Marine Fisheries, Leather \& Footwear, Textiles, Surgical Instruments, Transport and Dairy. Whereas the task of SME development at a broader scale still requires more coverage and enhanced reach in terms of SMEDA's areas of operation.
Along with the sectoral focus a broad spectrum of Business Development Services is also being offered to the SMEs by SMEDA. These services include identification of viable business opportunities for potential SME investors. In order to facilitate these investors, SMEDA provides Help Desk Services as well as development of project specific documents. These documents consist of information required to make well researched investment decisions. Pre-feasibility Studies and Business Plan Development are some of the services provided to enhance the capacity of individual SMEs to capitalize on viable business opportunities.

## 2 PURPOSE OF THE DOCUMENT

Pre-feasibility studies are developed primarily to facilitate potential entrepreneurs in project identification for investment. Pre-feasibility Studies may form the basis on which an important investment decision maybe made. The document covers various aspects of the business venture from project concept development to, financing and business management.

## 3 PROJECT PROFILE

The project is about starting a cut flower farm near pattoki

### 3.1 Project Brief

Cut flowers growth is not a new phenomenon in floricultural sector of Pakistan; however it is an infant industry as far as its growth is concerned. The resource rich local soil provides ideal agronomic conditions for the production of cut flowers. Despite lack of knowledge on modern floricultural production techniques, difficulty in obtaining the latest varieties and the lack of infrastructure, the industry is continuously attracting new entrants.

This pre-feasibility is being prepared by SMEDA and is intended to provide general information on the opportunity for an investor in the floricultural sector to develop cutflowers farm of roses for supply in local market. Roses are the most traded of all cut flower varieties around the world. The trend in Pakistan is no different.

### 3.2 Project Rationale

Growing cut flowers, especially roses, is a very profitable business if done properly on commercial basis. Demand for cut flowers, especially roses, is growing tremendously as more and more people are becoming aware of the beauty of flowers as decorative items. Weddings, birthday parties, seminars, and other such social gathering events are incomplete without floral decorations. Besides earning money one also helps keep the environment clean and beautiful.

Though it is a capital-intensive project, the high returns as compared to any other agricultural venture makes it economically viable. Low cost of labor combined with very reasonable land lease rates and helpful climatic conditions for most part of the year serve as the basis for making this project attractive. Rose plants are easily available and are very cheap.

## 4 PROCESS FLOW CHART



## 5 VIABLE ECONOMIC SIZE

A small farm of 5 acres would be economically viable considering the amount of effort and money required and returns expected. Besides rose growing fields of 5 acres, another 2 kanal of land is required to perform post-harvesting functions and other related chores.

## 6 CURRENT INDUSTRY STRUCTURE

Pattoki serves as the center for floricultural activity in Pakistan. Though Kasur and Sheikhupura districts have also developed some expertise in this field, yet Pattoki still serves as the hub market for all floricultural trade. Patto 'mandi' is the major forum for buying and selling of fresh cut flowers, especially roses. From Pattoki, flowers are distributed to all parts of the country including Karachi, Peshawar, Lahore, and Islamabad.

Overall, this sector is still in infancy, still going through birth pains. This is not a good sign considering the years this sector has been around. The major reason for this slow development process has been the lack of interest on part of progressive farmers to enter this field. The credit goes to small and poor farmers who have kept on going without much technical and/or financial support over the years. Whatever pre-harvest and postharvest handling techniques are being used is the direct result of their personal ingenuity, however primitive they may be.

There are only few major players in this industry. Majority of the industry is unorganized. Therefore, there is great potential for anyone who comes into this field and does farming on progressive basis.

## 7 SALES \& MARKETING ISSUES

Local market of cut flowers, especially for different varieties and colors in roses, is still growing. Pattoki area is the major supplier to fulfill this demand. There are two basic market segments for flowers:
a) Retail sales to consumers
b) Wholesale sales to corporate and institutional customers

In every major city of the country there are numerous retail outlets selling all kinds of flowers to consumers. These outlets could be anything from a roadside corner kiosk to a proper retail outlet shop in some high-end urban locality. These shops are either fed directly from farms or through a middleman or distributor. Some shops buy directly from 'mandi' as well. Buying directly from the farms give bigger shops access to better quality flowers as flowers do not go through too many different hands and there is less wear and tear. Another important aspect of buying directly from farms is better profit margins for both farm owners as well as shopkeepers. This they achieve by eliminating the middleman. But this setup is quite rare. Nine out of ten times it's the distributor who is the supplier to most of small shops in the city. A major advantage of buying from distributors is the availability of credit facility.

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. For party decorators high quality is not an issue as they use the flowers only once. Once the party is over the flowers go to the bin. As far as hotels and offices are concerned, quality is an important issue. But again as flowers are changed everyday, they don't need long life product.

Some small traders have developed another sale channel. They buy from Pattoki 'mandi' in the morning and bring their product to Begumkot (Sheikhupura District) 'mandi' and resell it for profit. From Begumkot 'mandi' either the shopkeepers or wholesale
distributors and traders buy this stuff and sell in cities like Lahore, Faisalabad, Gujranwala, etc.

## 8 FARM INPUTS

Following inputs are required:

### 8.1 Land

Land requirement is 5 acres for growing flowers and 2 kanals as area for sorting, washing, drying, packing and other related facilities. Land is to be obtained on lease. At present, lease rate in Pattoki area is Rs 15000 per acre per year.

| Description | Area(in acres) | Cost / Rate | Amount / Other |
| :--- | ---: | ---: | ---: |
| Land price / acre |  | 700,000 |  |
| Land lease cost /acre / year |  | 15,000 |  |
| Room | 0.002 |  |  |
| Shed | 0.037 |  |  |
| Field | 5.000 |  |  |
| Total Land Requirement | 5.04 |  |  |
| Land purchase price |  |  | $3,527,319$ |
| Land lease cost |  |  | $\mathbf{7 5 , 5 8 5}$ |

### 8.2 Flower Plants

Roughly 11,000 plants would be planted in each acre, approximately $4-\mathrm{ft}^{2}$ area for each rose plant. These plants would be brought from a commercial nursery. New plants are grafted in July by the nurseries and are ready to be transferred to the field in January. Starting from January, these six months old plants at the farm are to be taken care of till October. During this period, the fields are to be looked after as if they are in production. Water, pesticide spray, fertilizer, and labor requirements remain the same as for a commercially running farm. Rose flowers produced during this development stage are not cut along with stem from the plant. Only the flower is picked but not sold commercially because it is not yet fit for commercial sale. From November you start to take commercial production from the farm. In all 54,450 plants of rose would be required. Each six-month old plant costs Rs 10 on average when bought from nursery.

An important point is that the average life of a rose flower plant is 5 years. After 5 years all the plants would have to be replaced with new ones.

### 8.3 Water

Water is a regular requirement of flower plants, as is for any living thing. If fresh canal water were available, this would be the ideal situation. Firstly, the quality of water is good and it is very useful for plants. Secondly, if canal water were available it would cut out the expenses of installation of a tube well and the electricity or diesel cost of running that tube well. In Pattoki area, canal water is available for irrigation. But to be on the safe side water-pump should also be installed at the farm. It would cost about Rs 50,000 to install a reasonable capacity and quality pump. The average cost of water and upkeep of water channels costs about Rs 1,500 per acre per year. During April, May and June, fields are irrigated every week. Otherwise the normal practice is irrigating every 20-25 days.

### 8.4 Labor

General formula is 1 person per acre excluding the foreman and farm manager. This Laborer would cost Rs 4,000/month/acre. In all 5 laborers would be required. These laborers would also act as pickers, cleaners, sorters, packers, etc. There would be 1 foreman to keep the work moving and one farm manager cum accountant to manage the farm overall. During peak season, temporary pickers can be hired on daily wages. But that cost is negligible. Foreman could be hired for Rs 6000/- month, whereas the manager cum accountant would be hired for Rs 8,000/month.

Table 6-8-1 Required Manpower in the Year 1 of the Operation.

| Post | \# of personnel |  | Salary/month | $\mathbf{1}^{\text {st }}$ year cost |
| :--- | :--- | ---: | ---: | ---: |
| Manager/Accountant | 1 | 8,000 | 96,000 |  |
| Foreman | 1 | 6,000 | 72,000 |  |
| Semi-Skilled Workers | 5 | 4,000 | 240,000 |  |
| Total | $\mathbf{7}$ |  | $\mathbf{1 5 0 , 0 0 0}$ |  |

### 8.5 Pesticide Sprays

Between April and November, one spray of pesticides is required every fortnight. From December till March only one pesticide spray is required per month as prevention against fungus. One pesticide spray costs Rs 5000 resulting in total cost of sprays per acre per year is Rs 25,000 .

## Table6-8-2 Material Required

| Material | Cost/Acre(Bag) | Acres/Bags | Amount |
| :---: | :---: | :---: | :---: | :---: |
| Pesticide Sprays | 5,000 | 5 | 25,000 |

### 8.6 Fertilizers

Flower plants require DAP, potash, and ammonium nitrate fertilizers for proper yield. Sometimes one or two bags of urea are also required. 4 bags of DAP are required every quarter at Rs 1000/bag. 3 bags of potash are required every quarter at Rs 700/bag, and 4 bags of ammonium nitrate are required every quarter at Rs 350/bag.But for this feasibility we are using the combination of NPK which cost $500 / \mathrm{bag}$ and 2 bags per month per acre are required.

## Table 6-8-3 Fertilizers Required

| Material | Cost/Acre(Bag) | Acres/Bags | Amount |
| :---: | ---: | ---: | ---: |
| NPK | 500 | 24 | 60,000 |

### 8.7 Building \& Shed

This project does not require any major building structure. Only a small room for storage purpose is required. A maximum of $10^{\prime} \times 10^{\prime}$ room is enough. Besides storage room, one proper shed is required. This is an important requirement. The shed should be $40^{\prime} \times 40$ ' covered area with open sides for air passage. This area is to be used for washing, sorting, packing, and other post harvest activities. The construction rate is Rs 100 per square feet. This construction rate is based on the fact that the room and the shed would be made up of semi-baked bricks using local masonry skills. The idea is to cut the initial capital investment.

### 8.8 Farm Fixtures \& Tools

Basic farm tools and fixtures would include tools for pruning the plants, picking the flowers, and removing leaves, etc. Besides these tools, other fixtures are required including clean water hand pump, tables, tubs, wooden crates and fans. Total capital requirement for all these items is Rs 40,000 . All items would be Pakistan made and are easily available.

### 8.9 Packing

Rose flowers are either packed in specially designed wooden crates or else in cardboard cartons. Each wooden crate can carry about $25-30 \mathrm{Kg}$ flowers (one-Kg flowers is roughly 60 individual stems). For long distance transportation, an $8-10 \mathrm{Kg}$ ice block is also placed along with flowers to keep their temperature down. Cardboard cartons are usually used for short distance transportation. If they are to be used for long distance transportation, ice, packed in plastic bag, is also placed in each box for cooling effect. Usual gross weight for cardboard cartons is $15-20 \mathrm{Kg}$. Wooden crates are reusable over longer periods of time. About 100 boxes are enough to keep a cycle of rotation going. Each wooden crate would cost Rs 160. Cardboard carton usually cost Rs 35/box.

### 8.10 Transportation

Flowers packed in wooden crates and cardboard cartons are transported to big cities from Pattoki via train. To take these crates and/or cartons from farm to railway station a motorcycle cart is used which can be hired on rent at very nominal rates.

## 9 OUTPUT

Production of rose flowers has different seasonal variations. Between November and March, maximum yield is obtained, assessed to be about $70 \%$ of total production in a year. From mid April till mid June, there is no flower for commercial sale. From mid June till October, the situation gets better steadily and slowly. On an average, one plant of rose flower has an average yield of 50 flowers per year. Out of these 50, about 20 flowers are not up to the required standard and are destroyed either by man handling or by some disease. These are sold as petals. Therefore, only 30 flowers per plant per year are available for commercial sales. Sale price also depends on season, quality and size of flowers. It varies from Rs 35 for hundred stems to Rs 550 per hundred stems. But if we average out the price over the period of 12 months, one rose stem sells minimum for Rs 1 Sale is against credit and usual credit period is 15 days.

The complete produce of the farm would be sold in open market and to wholesalers, on daily basis. Direct supply to flower shops is possible if the offer is attractive.

## 10 OVERALL PICTURE

The over-all picture would go something like this that once you have planted six-month old rose plants in the fields in January, from there on till October, you have to look after the farm in all respects, including fertilizers, pesticides, etc. but without any yield. Flowers would bloom but they would not be used for commercial sale as their stem would still be smaller and if cut at that time it would destroy the plant and/or reduce its life. From November onwards the farm would be ready for production. In the first year, ending in December, only two months of production would be available for commercial sales. Next year approximately $80 \%$ capacity would be reached and in the third year farm would be operating on full capacity.

## 11 GENERAL FACTS \& FIGURES

*Farm at $100 \%$ capacity

| Total Area | 5 acres |
| :--- | ---: | ---: |
| Total no. of rose flower plants | 54,450 |
| Average no. of saleable flowers /plant / year | 30 |
| Total available saleable flowers/year | $1,633,500$ |

## 12 FINANCIAL ANALYSIS

### 12.1 Capital Investment

Capital Investment ..... Rs.
Building/Infrastructure ..... 153,000
Land tillage and saplings ..... 594,000
Machinery \& Equipment ..... 50,000
Pre-operating costs ..... 21,701
Total Capital Costs ..... 818,701
12.2 Working Capital
Working Capital ..... Rs.
Raw material inventory ..... 98,058
Upfront land lease rental ..... 75,585
Cash ..... 250,000
Total Working Capital ..... 423,644
12.3 Initial Financing
Initial FinancingDebt621,173
Equity ..... 621,173
Total Investment ..... 1,242,345

## Table 12-1 Project Returns

| Project IRR | $59 \%$ |
| :--- | ---: |
| NPV | $1,838,888$ |
| Payback Period | 2.25 |

## 13 REGULATION

There is no government regulation, which affects this business.

## 14 KEY SUCCESS FACTORS

The proposed project would have a number of competitive advantages:

1) Low cost of labor
2) Lower rent rate of available land
3) Growing local market
4) Country profile suites this project.

## 15 THREATS

Flowers are perishable products with a limited life span. Without any life enhancing treatment, its shelf life is three days to four days maximum. Therefore, flowers should be transported from the field as soon as possible in order to take advantage of its short life.

There are certain diseases that can affect flowers detrimentally, but timely pesticide sprays act as a defense against such threats.

## 16 ASSUMPTIONS

The proposed project is based on following assumptions:

1) Only rose flowers would be grown
2) Approximately 11,000 plants are planted per acre
3) Farm is based in Pattoki area
4) Already grafted plants would be bought from a nursery
5) Canal \& Pump water would be used for irrigation

## 17 FINANCIAL STATEMENTS

| Income Statement |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| Revenue | 421,989 | 1,506,501 | 1,860,972 | 1,954,021 | 2,051,722 | 2,154,308 | 2,262,023 | 2,375,124 | 2,493,881 | 2,618,575 |
| Cost of sales |  |  |  |  |  |  |  |  |  |  |
| Cost of goods sold 1 | 117,670 | 123,554 | 129,731 | 136,218 | 143,029 | 150,180 | 157,689 | 165,574 | 173,852 | 182,545 |
| Operating costs 3 (direct electricity) | 6,047 | 6,652 | 7,317 | 8,048 | 8,853 | 9,738 | 10,712 | 11,784 | 12,962 | 14,258 |
| Operating costs 4 (direct water) | 6,262 | 6,387 | 6,515 | 6,645 | 6,778 | 6,914 | 7,052 | 7,193 | 7,337 | 7,484 |
| Total cost of sales | 129,979 | 136,592 | 143,563 | 150,911 | 158,660 | 166,832 | 175,454 | 184,550 | 194,151 | 204,287 |
| Gross Profit | 292,010 | 1,369,909 | 1,717,409 | 1,803,109 | 1,893,062 | 1,987,475 | 2,086,570 | 2,190,574 | 2,299,729 | 2,414,288 |
| General administration \& selling expenses |  |  |  |  |  |  |  |  |  |  |
| Administration expense | 150,000 | 153,000 | 156,060 | 159,181 | 162,365 | 165,612 | 168,924 | 172,303 | 175,749 | 179,264 |
| Administration benefits expense | - | - | - | - | - | - | - | - | - | - |
| Land lease rental expense | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 |
| Travelling expense | 1,500 | 1,530 | 1,561 | 1,592 | 1,624 | 1,656 | 1,689 | 1,723 | 1,757 | 1,793 |
| Communications expense (phone, fax, mail, internet, etc.) | 1,500 | 1,530 | 1,561 | 1,592 | 1,624 | 1,656 | 1,689 | 1,723 | 1,757 | 1,793 |
| Depreciation expense | 72,050 | 72,050 | 72,050 | 72,050 | 72,050 | 72,050 | 72,050 | 72,050 | 72,050 | 72,050 |
| Amortization of pre-operating costs | 4,340 | 4,340 | 4,340 | 4,340 | 4,340 | - | - | - | - | - |
| Amortization of legal, licensing, and training costs | - | - | - | - | - | - | - | - | - | - |
| Subtotal | 304,976 | 308,036 | 311,157 | 314,340 | 317,588 | 316,560 | 319,938 | 323,384 | 326,899 | 330,485 |
| Operating Income | $(12,965)$ | 1,061,873 | 1,406,252 | 1,488,769 | 1,575,474 | 1,670,916 | 1,766,631 | 1,867,190 | 1,972,830 | 2,083,803 |
| Earnings Before Interest \& Taxes | $(12,965)$ | 1,061,873 | 1,406,252 | 1,488,769 | 1,575,474 | 1,670,916 | 1,766,631 | 1,867,190 | 1,972,830 | 2,083,803 |
| Interest expense on long term debt (Debt facility : Bank 1) | 86,964 | 61,681 | 32,858 | - | - | - | - | - | - | - |
| Interest expense on long term debt (Debt facility : Bank 2) | - | - | - | - | - | - | - | - | - | - |
| Subtotal | 86,964 | 61,681 | 32,858 | - | - | - | - | - | - | - |
| Earnings Before Tax | $(99,930)$ | 1,000,192 | 1,373,394 | 1,488,769 | 1,575,474 | 1,670,916 | 1,766,631 | 1,867,190 | 1,972,830 | 2,083,803 |
| Tax | - | 180,053 | 274,679 | 297,754 | 315,095 | 334,183 | 353,326 | 373,438 | 394,566 | 416,761 |
| NET PROFIT/(LOSS) AFTER TAX | $(99,930)$ | 820,140 | 1,098,715 | 1,191,015 | 1,260,379 | 1,336,733 | 1,413,305 | 1,493,752 | 1,578,264 | 1,667,043 |
| Balance brought forward |  | $(99,930)$ | 720,210 | 1,818,925 | 3,009,941 | 4,270,320 | 5,607,052 | 7,020,357 | 8,514,109 | 10,092,373 |
| Total profit available for appropriation | $(99,930)$ | 720,210 | 1,818,925 | 3,009,941 | 4,270,320 | 5,607,052 | 7,020,357 | 8,514,109 | 10,092,373 | 11,759,416 |
| Dividend | - | - | - | - | - | - | - | - | - | - |
| Balance carried forward | $(99,930)$ | 720,210 | 1,818,925 | 3,009,941 | 4,270,320 | 5,607,052 | 7,020,357 | 8,514,109 | 10,092,373 | 11,759,416 |

Balance Sheet

|  | Year 0 | Year 1 |  | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |  |  |  |  |  |  |  |  |
| Current assets |  |  |  |  |  |  |  |  |  |  |  |  |
| Cash \& Bank | 250,000 |  | 18,473 | 692,760 | 1,598,380 | 2,849,120 | 4,172,120 | 5,564,415 | 7,030,399 | 8,573,763 | 10,198,373 | 12,244 |
| Accounts receivable |  |  | 17,342 | 39,627 | 69,195 | 78,390 | 82,310 | 86,425 | 90,747 | 95,284 | 100,048 | 105 |
| Finished goods inventory |  |  | - | - | - | - | - | - | - | - | - |  |
| Equipment spare part inventory | - |  | - | - | - | - | - | - | - | - | - |  |
| Raw material inventory | 98,058 |  | 108,109 | 119,191 | 131,408 | 144,877 | 159,727 | 176,099 | 194,149 | 214,049 | 235,989 |  |
| Pre-paid annual land lease | 75,585 |  | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 |  |
| Total Current Assets | 423,644 |  | 219,510 | 927,162 | 1,874,568 | 3,147,973 | 4,489,742 | 5,902,525 | 7,390,880 | 8,958,682 | 10,609,996 | 12,349 |


| Fixed assets |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Land | - | - | - | - | - | - | - | - | - | - |
| Building/Infrastructure | 153,000 | 145,350 | 137,700 | 130,050 | 122,400 | 114,750 | 107,100 | 99,450 | 91,800 | 84,150 |
| Saplings \& Land Tillage | 594,000 | 534,600 | 475,200 | 415,800 | 356,400 | 297,000 | 237,600 | 178,200 | 118,800 | 59,400 |
| Machinary \& Equipment | 50,000 | 45,000 | 40,000 | 35,000 | 30,000 | 25,000 | 20,000 | 15,000 | 10,000 | 5,000 |
| Total Fixed Assets | 797,000 | 724,950 | 652,900 | 580,850 | 508,800 | 436,750 | 364,700 | 292,650 | 220,600 | 148,550 |


| Pre-operation costs | 21,701 | 17,361 | 13,021 | 8,681 | 4,340 | - | - | - | - | - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Legal, licensing, \& training costs | - | - | - | - | - | - | - | - | - | - |  |
| Total Intangible Assets | 21,701 | 17,361 | 13,021 | 8,681 | 4,340 | - | - | - | - | - |  |
| TOTAL ASSETS | 1,242,345 | 961,821 | 1,593,083 | 2,464,098 | 3,661,113 | 4,926,492 | 6,267,225 | 7,683,530 | 9,179,282 | 10,758,546 | 12,425, |


| Liabilities \& Shareholders' Equity |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Deferred tax |  | - | 17,000 | 24,000 | 30,000 | 35,000 | 39,000 | 42,000 | 44,000 | 45,000 | 45, |
| Long term debt (Debt facility : Bank 1) | 621,173 | 440,578 | 234,701 | - | - | - | - | - | - | - |  |
| Long term debt (Debt facility : Bank 2) | - | - | - | - | - | - | - | - | - | - |  |
| Total Long Term Liabilities | 621,173 | 440,578 | 251,701 | 24,000 | 30,000 | 35,000 | 39,000 | 42,000 | 44,000 | 45,000 | 45 |
| Shareholders' equity |  |  |  |  |  |  |  |  |  |  |  |
| Paid-up capital | 621,173 | 621,173 | 621,173 | 621,173 | 621,173 | 621,173 | 621,173 | 621,173 | 621,173 | 621,173 | 621, |
| Retained earnings |  | $(99,930)$ | 720,210 | 1,818,925 | 3,009,941 | 4,270,320 | 5,607,052 | 7,020,357 | 8,514,109 | 10,092,373 | 11,759, |
| Total Equity | 621,173 | 521,243 | 1,341,383 | 2,440,098 | 3,631,113 | 4,891,492 | 6,228,225 | 7,641,530 | 9,135,282 | 10,713,546 | 12,380, |
| TOTAL CAPITAL AND LIABILITIES | 1,242,345 | 961,821 | 1,593,083 | 2,464,098 | 3,661,113 | 4,926,492 | 6,267,225 | 7,683,530 | 9,179,282 | 10,758,546 | 12,425, |

Cash Flow Statement

|  | Year 0 | Year 1 |  | Year 2 |  | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 |  | Year 9 |  | Year 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Operating activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Net profit |  |  | $(99,930)$ |  | 820,140 | 1,098,715 | 1,191,015 | 1,260,379 | 1,336,733 | 1,413,305 |  | 1,493,752 |  | 1,578,264 | 1,667,043 |
| Add: depreciation expense |  |  | 72,050 |  | 72,050 | 72,050 | 72,050 | 72,050 | 72,050 | 72,050 |  | 72,050 |  | 72,050 | 72,050 |
| amortization of pre-operating costs |  |  | 4,340 |  | 4,340 | 4,340 | 4,340 | 4,340 | - | - |  | - |  | - | - |
| amortization of training costs |  |  | - |  | - | - | - | - | - | - |  | - |  | - | - |
| Deferred income tax |  |  | - |  | 17,000 | 7,000 | 6,000 | 5,000 | 4,000 | 3,000 |  | 2,000 |  | 1,000 | 0 |
| Accounts receivable |  |  | $(17,342)$ |  | $(22,284)$ | $(29,568)$ | $(9,196)$ | $(3,920)$ | $(4,115)$ | $(4,321)$ |  | $(4,537)$ |  | $(4,764)$ | $(5,002)$ |
| Finished goods inventory |  |  | - |  | - | - | - | - | - | - |  | - |  | - | - |
| Equipment inventory | - |  | - |  | - | - | - | - | - | - |  | - |  | - | - |
| Raw material inventory | $(98,058)$ |  | $(10,051)$ |  | $(11,081)$ | $(12,217)$ | $(13,469)$ | $(14,850)$ | $(16,372)$ | $(18,050)$ |  | $(19,900)$ |  | $(21,940)$ | 235,989 |
| Cash provided by operations | $(98,058)$ |  | $(50,932)$ |  | 880,164 | 1,140,320 | 1,250,740 | 1,323,000 | 1,392,295 | 1,465,984 |  | 1,543,364 |  | 1,624,610 | 1,970,080 |
| Financing activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Debt facility : Bank 1 - principal repayment |  |  | $(180,594)$ |  | $(205,878)$ | $(234,701)$ | - | - | - | - |  | - |  | - |  |
| Debt facility : Bank 2 - principal repayment |  |  | - |  | - | - | - | - | - | - |  | - |  | - | - |
| Add: land lease expense |  |  | 75,585 |  | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 | 75,585 |  | 75,585 |  | 75,585 | 75,585 |
| Land lease payment | $(75,585)$ |  | $(75,585)$ |  | $(75,585)$ | $(75,585)$ | $(75,585)$ | $(75,585)$ | $(75,585)$ | $(75,585)$ |  | $(75,585)$ |  | $(75,585)$ | - |
| Additions to Debt facility : Bank 1 | 621,173 |  | - |  | - | - | - | - | - | - |  | - |  | - | - |
| Additions to Debt facility : Bank 2 | - |  | - |  | - | - | - | - | - | - |  | - |  | - | - |
| Issuance of shares | 621,173 |  | - |  | - | - | - | - | - | - |  | - |  | - | - |
| Cash provided by / (used for) financing activities | 1,166,760 |  | $(180,594)$ |  | $(205,878)$ | $(234,701)$ | - | - | - | - |  | - |  | - | 75,585 |
| Investing activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Capital expenditure | $(818,701)$ |  | - |  | - | - | - | - | - | - |  | - |  | - | - |
| Acquisitions |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cash (used for) / provided by investing activities | $(818,701)$ |  | - |  | - | - | - | - | - | - |  | - |  | - | - |
| NET CASH | 250,000 |  | (231,527) |  | 674,287 | 905,620 | 1,250,740 | 1,323,000 | 1,392,295 | 1,465,984 |  | 1,543,364 |  | 1,624,610 | 2,045,665 |
| Cash balance brought forward |  |  | 250,000 |  | 18,473 | 692,760 | 1,598,380 | 2,849,120 | 4,172,120 | 5,564,415 |  | 7,030,399 |  | 8,573,763 | 10,198,373 |
| Cash available for appropriation | 250,000 |  | 18,473 |  | 692,760 | 1,598,380 | 2,849,120 | 4,172,120 | 5,564,415 | 7,030,399 |  | 8,573,763 |  | 10,198,373 | 12,244,038 |
| Dividend |  |  | - |  | - | - | - | - | - | - |  | - |  | - | - |
| Cash balance | 250,000 |  | 18,473 |  | 692,760 | 1,598,380 | 2,849,120 | 4,172,120 | 5,564,415 | 7,030,399 |  | 8,573,763 |  | 10,198,373 | 12,244,038 |
| Cash carried forward | 250,000 |  | 18,473 |  | 692,760 | 1,598,380 | 2,849,120 | 4,172,120 | 5,564,415 | 7,030,399 |  | 8,573,763 |  | 10,198,373 | 12,244,038 |

