



Pre-Feasibility Study

(Shrimp Farming)



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) 111 111 456, Fax: (92 42) 36304926-7

helpdesk@smeda.org.pk

REGIONAL OFFICE Punjab

3rd Floor, Building No. 3,
 Aiwan-e-Iqbal Complex,
 Egerton Road Lahore,
 Tel: (042) 111-111-456
 Fax: (042) 36304926-7
helpdesk.punjab@smeda.org.pk

REGIONAL OFFICE Sindh

5th Floor, Bahria
 Complex II, M.T. Khan Road,
 Karachi.
 Tel: (021) 111-111-456
 Fax: (021) 35610572
helpdesk-khi@smeda.org.pk

REGIONAL OFFICE Khyber Pakhtunkhwa

Ground Floor
 State Life Building
 The Mall, Peshawar.
 Tel: (091) 111-111-456
 Fax: (091) 5286908
helpdesk-pew@smeda.org.pk

REGIONAL OFFICE Balochistan

Bungalow No. 15-A
 Chaman Housing Scheme
 Airport Road, Quetta.
 Tel: (081) 2831623, 2831702
 Fax: (081) 2831922
helpdesk-qta@smeda.org.pk

Note: All SMEDA Services / information related to PM's Youth Business Loan are Free of Cost

December, 2013

Table of Contents

1. DISCLAIMER	2
2. PURPOSE OF THE DOCUMENT	3
3. INTRODUCTION TO SMEDA	3
4. INTRODUCTION TO SCHEME	4
5. EXECUTIVE SUMMARY	4
6. BRIEF DESCRIPTION OF THE PROJECT	5
7. CRITICAL FACTORS	5
8. INSTALLED AND OPERATIONAL CAPACITIES	6
9. GEOGRAPHIAL POTENTIAL FOR INVESTMENT	6
10. POTENTIAL TARGET MARKETS	6
11. PROJECT COST SUMMARY	7
11.1 PROJECT ECONOMICS	7
11.2 PROJECT FINANCING.....	7
11.4 SPACE REQUIREMENT.....	8
11.5 MACHINERY AND EQUIPMENT	9
11.6 FURNITURE & OFFICE EQUIPMENT	9
11.7 RAW MATERIAL REQUIREMENTS	9
11.8 HUMAN RESOURCE REQUIREMENT	10
11.9 REVENUE GENERATION	10
11.10 OTHER COSTS.....	11
12. CONTACTS - SUPPLIERS, EXPERTS/CONSULTANTS	12
13. ANNEXURES	13
13.1 ANNEXURE 1 - INCOME STATEMENT	13
13.2 ANNEXURE 2 – STATEMENT OF CASH FLOW	14
13.3 ANNEXURE 3 – BALANCE SHEET.....	15
13.4 USEFUL PROJECT MANAGEMENT TIPS	16
13.5 USEFUL LINKS.....	17
14. KEY ASSUMPTIONS	18



1. DISCLAIMER

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

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

2. 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, production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in **Shrimp Farming** 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 the basis of investment decisions.

3. INTRODUCTION TO SMEDA

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

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

Preparation and dissemination of prefeasibility studies in key areas of investment has been a 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. INTRODUCTION TO SCHEME

'Prime Minister's Youth Business Loan' scheme, for young entrepreneurs, with an allocated budget of Rs. 5.0 Billion for the year 2013-14, is designed to provide subsidised financing at 8% mark-up per annum for one hundred thousand (100,000) beneficiaries, through designated financial institutions, initially through the National Bank of Pakistan (NBP) and the First Women Bank Ltd. (FWBL).

Loans from Rs. 0.1 million to Rs. 2.0 million with tenure up to 8 years inclusive of 1 year grace period, and a debt: equity of 90: 10 will be disbursed to SME beneficiaries+ across Pakistan, covering; Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan, Gilgit Baltistan, Azad Jammu & Kashmir and Federally Administered Tribal Areas (FATA).

5. EXECUTIVE SUMMARY

Shrimp farming business is proposed to be located preferably at Ketibandar Gharo, Somyani, Dam & Gevenai. Product includes 'Head-on-Tail-on Live Shrimp' for local consumption and export. Installed capacity of project is 20 tones with an initial utilization of 60%. Total estimated cost is Rs: 2.10 million with fixed investment Rs. 1.07 million and working capital Rs. 1.03 million.

Given the cost assumptions, IRR and payback are 60% and 2.5 years respectively.

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

1. Technical know-how of shrimp & aqua marine culture
2. Adherence to good farming practices.

6. BRIEF DESCRIPTION OF THE PROJECT

The production of marine shrimp in impoundments, ponds and tanks, gained popularity in the early 1970s and today, over fifty countries export farmed shrimp. Our neighboring countries, India, China, Bangladesh, Iran and Sri Lanka all produce huge quantities of farmed shrimp. Shrimp export has a major share in the total seafood export of Pakistan, and constitutes almost 60% of the total fisheries export of the country. The annual catch of captured shrimp has been constant and meets domestic market requirements; however it has immense potential for exports.

Product: Product includes 'Head-on-Tail-on Live Shrimp'

Location: Shrimp farming business is proposed to be located preferably at Ketibandar, Gharo, Somyani, Dam, Gevenai in Thatta, Badin and Lasbela districts.

Technology: The project shall operate on semi intensive farming practices with a stock density of 150,000 seeds / acre.

Target Market: Shrimp is a seller's market. The controlling factor in shrimp export is shrimp production and not the market. Exporters of shrimps are confident that exports can be enhanced if the production can be increased.

Employment Generation: The proposed project will provide direct employment to 6 individuals. Financial analysis shows that the unit shall be profitable from the very first year of its operation.

7. CRITICAL FACTORS

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

- Technical know-how of shrimp farming & aqua marine.
- Suitable location with access to fresh water
- Disease management
- Localized shrimp seeds.
- Maintenance of salinity levels.
- Regular quality checks.
- Regular monitoring for Feed Conversion Ratio (FCR).
- Adherence to good farming practices.
- Regular water supply to the premises.

8. INSTALLED AND OPERATIONAL CAPACITIES

This pre-feasibility proposes semi-intensive farming techniques with initial stocking density of 150,000 post larva shrimp seeds per acre. Assuming 30% mortality, the proposed shrimp farm would produce around 12,000 kilograms per annum at initial stage, utilizing 60% of capacity of 20,000 kg.

9. GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Shrimp farm can easily be established/set-up in Sindh & Baluchistan due to accessibility of Indus delta areas and along coastal areas. The weather in these areas would allow two crops (4-5 months) to be cultivated in a year. Potential areas for shrimp farming are Keti Bandar, Gharo, Somyani, Dam & Gevenai.

10. POTENTIAL TARGET MARKETS

Shrimp is a seller's market. Consumption of shrimp has increased throughout the world in recent years on the other hand marine resources and natural habitats of shrimps are depleting due to various environmental factors. Local processors have lost international orders due to non-availability of required qualities & quantities. The controlling factor in shrimp export is shrimp production and not the market. Exporters of shrimp are confident that exports can be enhanced if production is increased.

11. PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of this project under the 'Prime Minister's Youth Business Loan'. Various cost and revenue related assumptions along with results of the analysis are outlined in this section.

The projected Income Statement, Cash Flow Statement and Balance Sheet are attached as annexure.

11.1 Project Economics

The following table shows the internal rates of return and payback period for shrimp farming business operating at 60% capacity.

Table 1 - Project Economics

Description	Details
Internal Rate of Return (IRR)	60%
Payback Period (yrs)	2.5years
Net Present Value (NPV)	Rs 11,820,504

Returns on the scheme and its profitability are highly dependent on the efficiency of the production supervisor, interest of the owner/manager and quality of water.

11.2 Project Financing

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

Table 2 - Project Financing

Description	Details
Total Equity (10%)	Rs 209,716
Bank Loan (90%)	Rs 1,887,444
Markup to the Borrower (%age/annum)	8%
Tenure of the Loan (Years)	8
Grace Period (Years)	1

11.3 Project Cost

Following requirements have been identified for operations of the proposed business:

Table 3: Capital Investment for the Project

Capital Investment	Amount (Rs.)
Advance Rent (Deposit)	75,000
Office / Infrastructure of Farm	270,000
Furniture & fixtures	100,000
Machinery & Office Equipment	470,000
Pre Operating Costs	150,000
Total Capital Costs	1,065,000
Initial Working Capital	1,032,160
Total Project Cost	2,097,160

11.4 Space Requirement

Salt water is delivered from sea or through a 10-inch-diameter, 75-foot-deep well, dug on the premises. Salt water will be delivered by a pump/motor system using power from an outside source. An engine-driven pump backup system should be available in case of power outages. The facility will have two ponds, each measuring one acre. An Office area will be multi-purpose office, men's showers, changing facilities and toilets, and a room that could be sub-divided for use as storage and as a small laboratory.

Table 4: Space Requirement

	Unit	Space Requirement	Construction & Renovation Amount (Rs.)
Ponds	Acre	2	70,000
Office Area & Store	Sq ft	200	90,000
Nursery Tank & Fresh Water Tank	Lumpsum		110,000
Total Area			270,000

Three (3) acres of land would be acquired on rental basis, which will cost around Rs. 75,000/- per year. It has been assumed that the land will have basic infrastructure available. However, for the necessary construction, renovation and customization of the facility, Rs. 270,000/- will be required. The structure is assumed to depreciate at 10% per annum.

11.5 Machinery and Equipment

Shrimp farm requires pumps, pipes & aeration fans to maintain water quality. Machinery required is available both locally and can be imported. Local machinery reportedly gives good quality output and after sales service is easily available.

Following table provides list of machinery and equipment required for a shrimp farm:

Table 5: List of Machinery and Equipment

Description	Capacity Units	Quantity	Cost Rs/unit	Total Rs.
Pumps	2 Hp	2	50,000	100,000
Piping	Meter	1000	175	175,000
Aeration Fans	No	8	15,000	120,000
Nets	Lump sum			50,000
Lightings	Lump sum			25,000
Total				470,000

11.6 Furniture & Office Equipment

A provision of Rs. 100,000/- for procurement of office equipment is assumed. This would include computer, printer, fax, table, desk, chairs etc. The breakup is as follows:

Table 6: Furniture & Office Equipment Cost

	Quantity	Cost	Amount
Computers	1	25,000	25,000
Computer printer	1	10,000	10,000
Telephones	2	2,500	5,000
Fax machine	1	10,000	10,000
Furniture	1	50,000	50,000
Total			100,000

11.7 Raw Material Requirements

Based on our assumptions for the production facility, it would be necessary to maintain raw material inventory in order to avoid any unexpected price fluctuation. For this purpose three months inventory of shrimp feed has been assumed.

Table 7: Cost of Raw Material

Ingredients	Unit	Rate (Rs.)	Qty	Rs.
Shrimp Seeds	No	1	430,400	430,400
Shrimp Feed	Kg	100	24,102	2,410,240
Total Raw Material Cost				2,840,640

Note: Figures are rounded off at zero decimal place

11.8 Human Resource Requirement

Table 8: Human Resource Requirement

Description	No. of Employees	Salary per employee per month (Rs.)	Salary per month (Rs.)
Owner Manager	1	25,000	25,000
Pond Supervisor	1	12,000	12,000
Labor	3	10,000	30,000
Security Guard	1	10,000	10,000
Total Staff	6		77,000

Shrimp farming business does not need specialized skilled labor but requires a supervisor with some experience in shrimp farming. The proposed project would need a total of 6 persons in order to handle operations. Manpower requirement for the business operations along with their respective salaries is given in the table above.

Owner/manager is the driving force behind the success of this venture. He takes active part in day-to-day business affairs and ensures adherence to quality. Salaries of all employees are estimated to increase at 10% annually.

11.9 Revenue Generation

Annual price & capacity utilization growth rate of 10% each, has been assumed which would cover anticipated growth in the industry as well as price. Based on our discussions with industry experts, following revenue related assumptions have been made on annualized basis.

Table 9: Revenue

Shrimp	Unit	Sales Price (Rs./Unit)	First Year Production	First Year Sales Revenue (Rs)
PL 20	No	428	12,051	5,157,914
Total Sales Revenue				5,157,914

Note: Figures are rounded off at zero decimal place

11.10 Other Costs

- Considering the nature of the industry, it has been assumed that all sales will be on cash.
- A provision for bad debts has been assumed equivalent to 1% of the annual sales.
- The cost of the utilities including electricity, fuel, telephone, and gas is estimated to be around Rs. 144,000/- per annum.
- Miscellaneous expenses of running the business are assumed to be Rs. 10,000 per month. These expenses include various items like office stationery, daily consumables, traveling allowances etc. and are assumed to increase at 10% per annum.
- The business will operate as a sole proprietorship; therefore, tax rates applicable on the income of a non-salaried individual taxpayer are used for income tax calculation of the business.
- The cost of capital is explained in the following table:

Table 10: Revenue

Particulars	Rate
Required return on equity	20%
Cost of finance	8%
Weighted Average Cost of Capital	9.2%

12. CONTACTS - SUPPLIERS, EXPERTS/CONSULTANTS

Below are the contact details of Fisheries Departments in Sindh and Balochistan.

BALUCHISTAN:

Zeeshan Ul Haq,

Head of Fisheries,

Room no. 3, Block no. 12, Civil Sector Balochistan, Zarghoon Road.

SINDH:

- Mr. Ather Mian Ishaq
(Director Research & Development)
Secretariat Live Stock Fisheries Department
Block 4-B, Barrick # 90,
Sindh Secretariat, Karachi.
Tel# 021-99203291
- Mr. Ashraf Ali
(Director Marine)
Secretariat Live Stock Fisheries Department
Block 50
Pakistan Secretariat, Karachi.
Tel# 021-35651508
- Director General
Marine Fisheries Department
Fish Harbor, West Wharf, Karachi
Ph: 021-99214890

13. ANNEXURES

13.1 Annexure 1 - Income Statement

SHRIMP FARMING										
Projected Income Statement (Rs.)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	5,157,914	5,957,390	6,880,786	7,947,307	9,179,140	10,601,907	12,245,202	14,143,209	16,335,406	18,867,394
Bed Debt Expenses	51,579	59,574	68,808	79,473	91,791	106,019	122,452	141,432	163,354	188,674
Net (Adjusted Sales)	5,106,334	5,897,816	6,811,978	7,867,834	9,087,349	10,495,888	12,122,750	14,001,777	16,172,052	18,678,720
Cost of Sales	3,708,640	4,103,176	4,540,835	5,026,497	5,565,621	6,164,310	6,829,398	7,568,537	8,390,300	9,304,300
Cost of fry	430,400	497,112	574,164	663,160	765,950	884,672	1,021,796	1,180,174	1,363,101	1,574,382
Cost of Feed	2,410,240	2,651,264	2,916,390	3,208,029	3,528,832	3,881,716	4,269,887	4,696,876	5,166,563	5,683,220
Salaries (Production Staff)	624,000	686,400	755,040	830,544	913,598	1,004,958	1,105,454	1,215,999	1,337,599	1,471,359
Utilities	244,000	268,400	295,240	324,764	357,240	392,964	432,261	475,487	523,036	575,339
Gross Profit	1,397,694	1,794,640	2,271,143	2,841,337	3,521,728	4,331,578	5,293,352	6,433,240	7,781,752	9,374,420
Gross Profit Margin	27%	30%	33%	36%	39%	41%	44%	46%	48%	50%
General Administrative & Selling Expenses										
Salaries	300,000	330,000	363,000	399,300	439,230	483,153	531,468	584,615	643,077	707,384
Factory/Office Miscellaneous Expenses	120,000	132,000	145,200	159,720	175,692	193,261	212,587	233,846	257,231	282,954
Rent Expense	75,000	78,750	82,688	86,822	91,163	95,721	100,507	105,533	110,809	116,350
Amortization of Preliminary Expenses	30,000	30,000	30,000	30,000	30,000	-	-	-	-	-
Depreciation Expense	84,000	75,600	68,040	61,236	55,112	49,601	44,641	40,177	36,159	32,543
Maintenance Expense	23,500	23,500	23,500	23,500	23,500	23,500	23,500	23,500	23,500	23,500
Pond Maintenance	25,000	26,250	27,563	28,941	30,388	31,907	33,502	35,178	36,936	38,783
Selling & Promotional Expense	153,190	176,934	204,359	236,035	272,620	314,877	363,683	420,053	485,162	560,362
Subtotal	810,690	873,034	944,349	1,025,554	1,117,705	1,192,020	1,309,889	1,442,901	1,592,874	1,761,876
Operating Income	587,004	921,606	1,326,794	1,815,784	2,404,022	3,139,558	3,983,464	4,990,339	6,188,879	7,612,544
Financial Charges (8% Per Annum)	150,996	143,421	126,025	107,184	86,780	64,683	40,751	14,833	-	-
Earnings Before Taxes	436,009	778,185	1,200,769	1,708,599	2,317,242	3,074,875	3,942,713	4,975,505	6,188,879	7,612,544
Tax	43,601	39,228	102,615	189,220	310,948	491,219	708,178	1,015,152	1,388,607	1,886,890
Net Profit	392,408	738,957	1,098,154	1,519,379	2,006,294	2,583,656	3,234,534	3,960,354	4,800,271	5,725,654
Monthly Profit After Tax	32,701	61,580	91,513	126,615	167,191	215,305	269,545	330,029	400,023	477,138

13.2 Annexure 2 – Statement of Cash Flow

SHRIMP FARMING

Projected Statement of Cash Flows (Rs.)	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cash Flow From Operating Activities											
Net Profit	0	392,408	738,957	1,098,154	1,519,379	2,006,294	2,583,656	3,234,534	3,960,354	4,800,271	5,725,654
Add: Depreciation Expense	0	84,000	75,600	68,040	61,236	55,112	49,601	44,641	40,177	36,159	32,543
Amortization Expense	0	30,000	30,000	30,000	30,000	30,000	-	-	-	-	-
(Increase) / decrease in Receivables	-	0	0	0	0	0	0	0	0	0	0
(Increase) / decrease in RM	-	(217,000)	(98,634)	(109,415)	(121,416)	(134,781)	(149,672)	(166,272)	(184,785)	(205,441)	(228,500)
(Increase) / decrease in FG Inventory	-	0	0	0	0	0	0	0	0	0	0
Net Cash Flow From Operations	0	289,408	745,923	1,086,779	1,489,200	1,956,625	2,483,585	3,112,903	3,815,746	4,630,989	5,529,697
Cash Flow From Financing Activities											
Receipt of Long Term Debt	1,887,444										
Repayment of Long Term Debt			(209,596)	(226,993)	(245,833)	(266,237)	(288,335)	(312,266)	(338,184)	-	-
Owner's Equity	209,716										
Net Cash Flow From Financing Activities	2,097,160	0	(209,596)	(226,993)	(245,833)	(266,237)	(288,335)	(312,266)	(338,184)	0	0
Cash Flow From Investing Activities											
Equipment	(470,000)					0					0
Factory/Office Furniture	(100,000)										
Preliminary Operating Expenses	(150,000)										
Purchase of Raw Material Inventory	(710,160)										
Advance Rent	(75,000)										
Construction & Renovation	(270,000)										
Net Cash Flow From Investing Activities	(1,775,160)	0	0	0	0	0	0	0	0	0	0
NET CASH FLOW	322,000	289,408	536,327	859,786	1,243,367	1,690,388	2,195,250	2,800,637	3,477,562	4,630,989	5,529,697
Cash at the Beginning of the Period	0	322,000	611,408	1,147,735	2,007,521	3,250,888	4,941,276	7,136,527	9,937,164	13,414,726	18,045,715
Cash at the End of the Period	322,000	611,408	1,147,735	2,007,521	3,250,888	4,941,276	7,136,527	9,937,164	13,414,726	18,045,715	23,575,412

13.3 Annexure 3 – Balance Sheet

SHRIMP FARMING											
Projected Balance Sheet (Rs.)	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 Balance	322,000	611,408	1,147,735	2,007,521	3,250,888	4,941,276	7,136,527	9,937,164	13,414,726	18,045,715	23,575,412
Raw Material Inventory	710,160	927,160	1,025,794	1,135,209	1,256,624	1,391,405	1,541,078	1,707,350	1,892,134	2,097,575	2,326,075
Finished Goods Inventory	0	0	0	0	0	0	0	0	0	0	0
Accounts Receivable	0	0	0	0	0	0	0	0	0	0	0
Advance Rent	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Total Current Assets	1,107,160	1,613,568	2,248,529	3,217,730	4,582,512	6,407,681	8,752,604	11,719,513	15,381,860	20,218,290	25,976,487
Fixed Assets											
Plant Machinery & Facility	470,000	423,000	380,700	342,630	308,367	277,530	249,777	224,800	202,320	182,088	163,879
Factory Construction	270,000	243,000	218,700	196,830	177,147	159,432	143,489	129,140	116,226	104,604	94,143
Land	0	0	0	0	0	0	0	0	0	0	0
Furniture & Fixtures	100,000	90,000	81,000	72,900	65,610	59,049	53,144	47,830	43,047	38,742	34,868
Vehicle	0	0	0	0	0	0	0	0	0	0	0
Total Fixed Assets	840,000	756,000	680,400	612,360	551,124	496,012	446,410	401,769	361,592	325,433	292,890
Intangible Assets											
Preliminary Expenses	150,000	120,000	90,000	60,000	30,000	-	-	-	-	-	-
Total Assets	2,097,160	2,489,568	3,018,929	3,890,090	5,163,636	6,903,693	9,199,015	12,121,283	15,743,452	20,543,724	26,269,377
Owner's Equity	209,716	602,124	1,341,081	2,439,235	3,958,614	5,964,908	8,548,564	11,783,099	15,743,452	20,543,724	26,269,377
Long Term Liability	1,887,444	1,887,444	1,677,848	1,450,855	1,205,022	938,785	650,450	338,184	0	0	0
Total Equity & Liabilities	2,097,160	2,489,568	3,018,929	3,890,090	5,163,636	6,903,693	9,199,015	12,121,283	15,743,452	20,543,724	26,269,377

S M E D A

13.4 Useful Project Management Tips

Technology

Pumps

Piping

Aeration Fans

Nets

Lightings

- **Energy Requirement:** Should not be overlooked. Alternate source of energy for critical operations be arranged in advance.
- **Machinery Suppliers:** Training and after sales services should be sought from machinery suppliers.

Marketing

- **Sales & Distribution Network:** Experts' advice may be taken on sales and distribution agreements with relevant distributors.
- **Price - Bulk Discounts, Cost plus Introductory Discounts:** Price should never be allowed to compromise quality. Price during introductory phase may be lower and used as a promotional tool. Product cost estimates should be carefully documented before price setting.

- **Human Resources**

Owner /Manager

Pond Supervisor

Labor

Security Guard

- **Adequacy & Competencies:** Skilled and experienced staff should be recruited and retained.
- **Performance Based Remuneration:** Attempt to manage human resource cost should be focused through performance measurement and performance based compensation.
- **Training & Skill Development:** Encouraging training and skill of self & employees through experts and exposure to best practices is the route to success. Least cost options for Training and Skill Development (T&SD) may be linked with compensation benefits and awards.

13.5 Useful Links

- **Prime Minister's Office** www.pmo.gov.pk
- **Small & Medium Enterprises Development Authority (SMEDA)**
www.smeda.org.pk
- **National Bank of Pakistan (NBP)** www.nbp.com.pk
- **First Women Bank Limited (FWBL)** www.fwbl.com.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 Jammu and Kashmir** www.ajk.gov.pk
- **Trade Development Authority of Pakistan (TDAP)** www.tdap.gov.pk
- **Securities and Exchange Commission of Pakistan (SECP)**
www.secp.gov.pk
- **Federation of Pakistan Chambers of Commerce and Industry (FPCCI)**
www.fpcci.com.pk

A large, semi-transparent watermark of the acronym "SMEDA" is overlaid on the page. The letters are in a bold, serif font and are light blue in color.

14. KEY ASSUMPTIONS

Item	Assumption(s)
Sales Volume Increase	5 % per year
Sales Price Increase	10% per year
Increase in Cost of Sales	10 % per year
Increase in Staff Salaries	10 % per year
Increase in Utilities	10 % per year
Increase in Rent	10 % per year
Increase in Office Expenses	10 % per year
Debt / Equity Ratio	90 : 10
Depreciation: Premises Renovation	10 % per annum (Diminishing Balance)
Furniture	10 % per annum (Diminishing Balance)
Loan Period	8 Years
Loan Installments	Monthly
Financial Charges (Loan Rate)	8 % per annum
Bad Debts	1% of Sales
Grace Period	1 year



SMEDA