
Pre-Feasibility Study

ENVIRONMENTAL CONTROLLED POULTRY FARM

(60,000 Birds)



Small and Medium Enterprises Development Authority

Ministry of Industries & Production

Government of Pakistan

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1 DISCLAIMER

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

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2 EXECUTIVE SUMMARY

The Environmental Controlled Poultry Farm is a project of livestock sector, in which the Day Old Chicks (DOCs) are raised on high protein feed for an approximate period of six weeks. The entire specific requirement will be met by automatic operations of temperature control, feeding and nipple drinking system, which will be monitored by the concerned staff. Broiler farming in controlled environment is a profitable venture due to continuous increasing demand of the white meat in the market.

In this pre-feasibility study, all the calculations have been based on a flock size of 60,000 birds, with raising 7 flocks per year. These birds are kept in a double story shed of 20,880 Sq. ft each. Proposed space of a bird is 0.65 Sq. ft. Both rural and urban areas are suitable for this business. After brooding and rearing period, birds are sold on 'Live Body Weight' basis to traders, whole sellers or transported to urban markets. The farm gate price of the live bird is determined on daily basis.

An estimated investment of Rs 54.57 million is required, out of which capital investment is Rs. 41.15 million and working capital is Rs. 13.42 million. The Internal Rate of Return (IRR), Net Present Value (NPV) & Payback Period of the project are 24%, Rs. 20.45 million and 4.43 years respectively. The project is proposed to operate as a sole-proprietorship.

3 INTRODUCTION TO SMEDA

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

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

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of business development services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need based capacity building programs of different types in addition to business guidance through help desk services.

4 PURPOSE OF THE DOCUMENT

The objective of the pre-feasibility study is primarily to facilitate potential entrepreneurs in project identification for investment. The project pre-feasibility may form the basis of an important investment decision and in order to serve this objective, the document / study covers various aspects of project concept development, start-up, and production, marketing, finance and business management.

The purpose of this document is to facilitate potential investors in **Environmental Controlled Poultry 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 its successful management.

Apart from carefully studying the whole document one must consider critical aspects provided later on, which form basis of any Investment Decision.

5 BRIEF DESCRIPTION OF PROJECT & PRODUCT

Broiler meat is the cheapest source of animal protein available in the country. The consumption of white meat is increasing due to growing health consciousness in the masses. Broiler farming in controlled environment is a profitable venture due to continuous increasing demand of the white meat in the market.

In the proposed Poultry Farm, the Day Old Chicks (DOCs) will be raised on high protein feed in a controlled environment for a period of six weeks. The broiler chicks will be purchased from private hatcheries. A purpose built farm, equipped with automatic operations of temperature control, feeding and nipple drinking system is established on a purchased land. Around seven flocks, with each flock of 60,000 broiler chicks in a year will be reared at the farm.

The chicks will be set in brooding on litter floor providing specific requirement during first four week and then finishing phase for next two weeks. After six weeks, the birds are sold on live body weight basis to traders, whole sellers or directly transported to urban retail markets. After selling a particular flock of birds, the broiler house will be given 10 days for the preparation to receive the new flock. During these days, proper cleaning, washing, disinfection and fumigation will be

performed prior to the arrival of the new flock. During flock, strict measures for bio-security will be ensured at the unit.

5.1 Installed and Operational Capacities

In this pre-feasibility study, all the calculations have been based on a flock size of 60,000 birds, with raising 7 flocks per year. A lag time of 10 days for cleaning and fumigation of the farm is proposed. The detail is given in table below;

Table 1: Installed and Operational Capacity

Description	Nos.
No. of Flocks per Year	7
Number of Birds per Flock*	61,200
Mortality (3%)	1,836
Number of Birds After Mortality	59,364
Annual Production Capacity After Mortality	415,548

* Generally 2% excessive birds are given at the time of purchasing DOCs.

5.2 Farm Management / Operations

Farm inputs required for a Controlled House include farm equipment (drinkers, feed trays, brooders, and feeders) and other items like feed, vaccines & medicines, rice-husk or saw-dust, water, electricity, etc. The following practices starting from arrival of the chicks to marketing of broilers should be performed under the supervision of an expert.

- ⇒ The DOCs should be procured from well reputed hatcheries and should be of uniform size, active and bright eyed, having healed navel. The skin of shanks should be shiny.
- ⇒ The DOCs should arrive at the farm early in the morning so that the management has a full day to observe them for any issue.
- ⇒ Flushing should be done by offering 250 gm glucose per gallon of water as readily available source of energy and to clear the digestive tract.
- ⇒ Keep light at high intensity 20–22 hours per day for the first week. Closely regulate temperature of shed.
- ⇒ Starter feed should be offered as a source of energy to chicks as it is easily digestible and a good source of energy. Broilers are fed two types of ration i.e. broiler starter (mash or crumb form) fed up to four weeks of age and then broiler finisher (mash or crumb form) fed from

fifth to sixth week. There are many feed mills that prepare these formulated feeds.

- ⇒ Remove dead birds immediately and dispose them properly. Send the dead birds to lab for postmortem examination if there is excessive mortality.
- ⇒ Follow the recommended vaccination schedule. Vaccination can be provided to chicks through eye drops, drinking water and subcutaneous injections.
- ⇒ Low temperature should be controlled with the help of diesel heaters and high temperature with evaporative cooling system.
- ⇒ Watering through automatic nipple drinking system.
- ⇒ Feeding through automatic feeding system.
- ⇒ Specific vaccination schedule should be adopted for disease control.
- ⇒ Prophylactic medication should be provided according to requirement.
- ⇒ Sanitation and disinfection program should be strictly followed during and after the completion of one flock.
- ⇒ Record should be maintained for feed intake, body weight, FCR and mortality.
- ⇒ Marketing of finished (ready) broilers.

6 CRITICAL FACTORS

- ⇒ Background knowledge and related experience of the entrepreneur in poultry farm operations.
- ⇒ Application of good poultry husbandry practices such as timely feeding, watering, lighting, vaccination, medication, temperature / humidity control and culling of uneconomical birds to ensure flock's best performance and higher efficiency in disease-free environment.
- ⇒ Awareness of supply and demand of chicken in the market as the price of chicken meat fluctuates throughout the year.
- ⇒ Efficient marketing of the project and bulk supply to wholesalers.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Rural and peri-urban areas around major cities are suitable for setting up a poultry farm. Setting up a farm at an isolated place will minimize the risk of disease. Proximity of the farm to the city enables the farmer to establish links with the market for buying farm inputs and selling of grown-up birds, swiftly. Sub-urban and rural areas around big cities e.g. Karachi, Lahore, Peshawar, Quetta, Rawalpindi, Faisalabad, Hyderabad, Abbottabad and Multan are recommended for starting a broiler farm.

8 POTENTIAL TARGET CUSTOMERS / MARKETS

Marketing of chickens follow traditional channels of distribution. Generally, grown-up birds are distributed in the market through market agents and intermediaries such as Arhti and wholesalers. In some cases, the middleman provides DOCs and other farm inputs (feed, vaccination, medication etc.) to the broiler farmers under a contract to buy back mature birds from them.

Birds are transported to the urban market and are sold to retailers or market-street poultry shops. Few poultry meat processing plants process raw poultry meat into dressed chicken, quality cuts or other forms to the market. The integrated processing units distribute frozen and dressed chicken packed in whole or cut-ups to the consumer through retail shops under their brand names. Major domestic markets include all major cities across the country including Karachi, Lahore, Peshawar and Quetta etc. The wholesale and retail price of poultry meat is determined daily on consumer's demand and supply situation.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of Environmental Controlled Poultry Farm. Various costs 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 also attached as annexure.

9.1 Project Economics

All the figures in this financial model have been calculated for estimated revenues of Rs. 99.35 Million in the year one.

The following table shows internal rate of return, payback period and net present value of the proposed venture.

Table 2: Project Economics

Description	Details
Internal Rate of Return (IRR)	24%
Payback Period (Yrs.)	4.43
Net Present Value (Rs.)	20,448,972

9.2 Project Financing

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

Table 3: Project Financing

Description	Details
Total Equity (50%)	Rs. 27,286,840
Bank Loan (50%)	Rs. 27,286,840
Markup to the Borrower (%age / annum)	12%
Tenure of the Loan (Years)	5 Years

9.3 Project Cost

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

Table 4: Project Cost

Capital Cost	Amount (Rs.)
Land	2,000,000
Building/Infrastructure	24,511,983
Machinery & equipment	11,521,040
Furniture & fixtures	260,000
Office vehicles	135,200
Office equipment	74,000
Pre-operating costs	2,651,106
Total Capital Costs	41,153,329
Working Capital	
Raw material inventory & Salaries etc (based on per/flock approx.)	11,913,429
Cash	1,506,923
Total Working Capital	13,420,352
Total Investment	54,573,681

9.4 Space Requirement

Approximately, 1 acre of land would be required for setting up the proposed Farm. As this business is land intensive, therefore, it is suggested to purchase the required land instead of rental or leased land. However, in order to avoid the initial high capital costs, the long-term lease contract for land acquisition may be considered. But entrepreneur can be more risk free on purchased land because of making heavy investment on shed and boundary wall as well as future business expansion. The total cost for acquiring land is assumed at Rs. 2.0 million.

The infrastructural requirements of the project mainly comprise of the construction of Sheds, open space, labor room and other facilities. Details of space requirement and cost of construction of building and infrastructure for the proposed farm is provided in the table below:

Table 5: Space Requirement

Description	Area (sq.ft.)	Cost (Rs. / sq.ft.)	Total (Rs.)
Shed Space Ground Floor (48' X 435')	20,880	500	10,440,000
Shed Space 1st Floor (48' X 435')	20,880	500	10,440,000
Building for Resident & Office Purposes Ground Floor			
Feed Store	500		
Toilet Block	100		
Admin Office	100		
Areas for Corridor	150		
Generator Set Room	400		
Store for Vaccine & Medicines & Misc.	150		
Total Area for Ground Floor	1,400	700	980,000
Changing/Store Room for Staff	100		
Rooms for Staff	400		
Kitchen	80		
Total Area for 1st Floor	580	700	406,000
Feed Hopper Room	450	700	315,000
Open Space	20,250		
Boundary wall (Run. Feet)	835	825	688,745
Water Boring			75,000
Design & Consultancy Charges	5%		1,167,237
Total Building & Infrastructure Cost			24,511,983

The entrepreneur should make sure that the following things are available at the farm site before setting up the farm:

- i. Electricity Connection
- ii. Clean Water Supply

9.5 Machinery & Equipment

Detail of Machinery & Equipment required for the farm is given below in table;

Table 6: Machinery & Equipment

Description	Quantity	Cost	Amount (Rs.)
Environmental Controlled Poultry Machinery for 60,000 birds (Pan Feeding System, Nipple Watering System, Lighting System Ventilation System, Feed Transportation System, and other allied equipment)			6,600,000
Generator Set 1 (75 KVA)	2	1,000,000	2,000,000
Heater for Winter	2	5,000	1,120,000
Fire Extinguisher etc.	2	2,000	448,000
Weigh Bridge 30 Ton, 8'x16'	1	750,000	750,000
Other Equipment's & Uniforms etc.			50,000
Total Machinery & Equipment Required			10,968,000
Erection & Installation			224,000
Contingencies	3%		329,040
Total			11,521,040

9.6 Furniture & Fixture

Detail of Furniture & Fixture required for the farm is given below in table;

Table 7: Furniture & Fixture

Description	Quantity	Cost	Amount (Rs.)
Furniture (Lump sum)			200,000
Air conditioners (1.5 ton Split)	1	60,000	60,000
Total Furniture & Fixtures			260,000

9.7 Vehicle

Two bikes will be used for procurement of different farm supplies and other business operations. The cost of bikes are estimated at Rs. 135,200.

9.8 Office Equipment

Detail of Office Equipment required for the farm is given below in table;

Table 8: Office Equipment

Description	Quantity	Cost	Amount (Rs.)
Computers	1	30,000	30,000
UPS	1	25,000	25,000
Computer printer	1	15,000	15,000
Telephones	2	2,000	4,000
Total Office Equipment			74,000

9.9 Raw Material Requirement

The major raw material required for poultry birds mainly comprises of DOC, feed, clean water and vaccination. The DOC price is taken as Rs. 40 per bird. The estimated cost of feed per bird is Rs. 143.06 per flock, while vaccination and medication cost per bird per flock is taken at Rs. 7.04. Similarly, brooding expenses per bird are assumed as Rs. 10.60.

9.10 Human Resource Requirement

In order to run operations of Environmental Controlled Poultry Farm smoothly, details of human resources required in first year of operation along with monthly salary are recommended as under:

Table 9: Human Resource Requirement (Year 1)

Description	No. of Employees	Monthly Salary per person (Rs.)
Supervisor	1	35,000
Housemen	5	15,000
Electrician	1	25,000
Watchmen	4	16,000
Cleaner	2	15,000
Total	13	

9.11 Utilities and Other Costs

An essential cost to be borne by the project is the cost of electricity which is estimated to be Rs. 2.94 million in the first year of operations. The travelling expense being essential for purchase of farm supplies and is estimated Rs. 120,000 in year one.

9.12 Revenue Generation

Revenue along with its assumption for the 1st year of operations is given in table below;

Table 10: Revenue Generation (Year 1)

Description	Detail
Avg. Weight per Bird (Kgs)	1.90
Sales Price (Rs. / Kg)	125
Sale Price (Rs. / Bird)	238
Annual Production Capacity After Mortality (Nos.)	415,548
Revenue from Sale of Birds (Rs.)	98,692,650

10 CONTACT DETAILS

In order to facilitate potential investors, contact details of consultants and experts relevant to the proposed project are provided below:

Name and Address	Contact
Feed Suppliers	
Supreme Feeds (Pvt.) Ltd. Head Office: 176-Shadman 1, Lahore.	Phone: +92-42-37522104-7
National Feeds Ltd. 171 Shadman – II Lahore.	Phone: +92-42-35961021-28 http://www.nationalfeeds.com.pk/
Asia Feed (Pvt.) Ltd. 359 Shamsabad Colony, Humayun Road Multan.	Phone: +92-61-6221161 – 65 http://www.asiafeeds.net/
Day Old Chick Supplier	
Big Bird Poultry Breeders (Pvt.) Ltd. 2-A, Ahmed Block, New Garden Town Lahore	Phone : +92-42-111 111 220 http://www.bigbirdgroup.com.pk/
Hi-Tech Poultry Breeders (Pvt.) Ltd.	Phone : +92-42-111 111 110 http://www.hitechgroup.pk/

1-A, Shadman Chowk Jail Road, Lahore	
Jadeed Farms (Pvt.) Ltd.	Phone: +92-51-111523 333 https://jadeedgroup.com/
6, Allied Commercial Plaza, Murree Road, Chandni Chowk Rawalpindi.	
Machinery Supplier	
TEC-MAN	
House # 226, Race Course Road, Westridge # 1, Rawalpindi Cantt - Pakistan	Phone: +92-51-5174284, 5174285. https://tecmanint.com/
Eastern Veterinary Services	
10-12, First Floor, Sharjah Center, Shadman Market, Lahore, Pakistan	Phone:+92-42-37503618 / 0323-7673539 http://www.easternveterinaryservices.com

11 USEFUL WEB LINKS

Small & Medium Enterprises Development Authority (SMEDA)	www.smeda.org.pk
Government of Pakistan	www.pakistan.gov.pk
Ministry of Industries & Production	www.moip.gov.pk
Government of Punjab	www.punjab.gov.pk
Government of Sindh	www.sindh.gov.pk
Government of Khyber Pakhtunkhwa	www.khyberpakhtunkhwa.gov.pk
Government of Baluchistan	www.balochistan.gov.pk
Government of Gilgit Baltistan	www.gilgitbaltistan.gov.pk
Government of Azad Jammu Kashmir	www.ajk.gov.pk
Security Commission of Pakistan (SECP)	www.secp.gov.pk
Federation of Pakistan Chambers of Commerce and Industry (FPCCI)	www.fpcci.com.pk
State Bank of Pakistan (SBP)	www.sbp.org.pk
Punjab Small Industries Corporation	www.psic.gop.pk
Sindh Small Industries Corporation	www.ssic.gos.pk

Punjab Vocational Training Council (PVTC)	www.pvtc.gop.pk
Livestock & Dairy Development Department, Government of Punjab.	www.livestockpunjab.gov.pk
Punjab Industrial Estates (PIE)	www.pie.com.pk
Faisalabad Industrial Estate Development and Management Company (FIEDMC)	www.fiedmc.com.pk
Punjab Agriculture and Meat Company.	http://www.pamco.bz/
Punjab Livestock & Dairy Development Board	http://www.plddb.pk/
University of Agriculture Faisalabad	www.uaf.edu.pk
University of Veterinary & Animal Sciences, Lahore	http://www.uvas.edu.pk/
Pakistan Poultry Association	http://pakistanpoultrycentral.com/

12 ANNEXURE

12.1 Income Statement

Calculations										
Environmental Controlled Shed Farm - SMEDA										
Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	Rs. In actuals									
Revenue from the sale of Birds	98,692,650	106,588,062	115,115,107	124,324,316	134,270,261	145,011,882	156,612,832	169,141,859	182,673,207	197,287,064
Sale of Feed Bags	240,932	260,207	281,023	303,505	327,786	354,008	382,329	412,915	445,949	481,625
Sale of Rice Husk	420,000	453,600	489,888	529,079	571,405	617,118	666,487	719,806	777,391	839,582
Total Revenue	99,353,582	107,301,869	115,886,018	125,156,900	135,169,452	145,983,008	157,661,648	170,274,580	183,896,547	198,608,270
<i>Cost of sales</i>										
Cost of DOC	16,800,000	17,640,000	18,522,000	19,448,100	20,420,505	21,441,530	22,513,607	23,639,287	24,821,251	26,062,314
Cost of Feed	59,450,010	63,611,511	68,064,317	72,828,819	77,926,837	83,381,715	89,218,435	95,463,726	102,146,186	109,296,419
Direct Labor	1,320,000	1,452,000	1,597,200	1,756,920	1,932,612	2,125,873	2,338,461	2,572,307	2,829,537	3,112,491
Vaccination, Medication & Disinfection	2,784,600	2,923,830	3,070,022	3,223,523	3,384,699	3,553,934	3,731,630	3,918,212	4,114,122	4,319,829
Direct Electricity	2,940,000	3,234,000	3,557,400	3,913,140	4,304,454	4,734,899	5,208,389	5,729,228	6,302,151	6,932,366
Diesel for Generators & Heater	4,004,640	4,405,104	4,845,614	5,330,176	5,863,193	6,449,513	7,094,464	7,803,910	8,584,301	9,442,732
Litter & Spray Cost	583,856	613,049	643,701	675,886	709,681	745,165	782,423	821,544	862,621	905,752
Total cost of sales	87,883,106	93,879,494	100,300,254	107,176,564	114,541,980	122,432,629	130,887,409	139,948,214	149,660,171	160,071,903
Gross Profit	11,470,476	13,422,375	15,585,764	17,980,336	20,627,471	23,550,379	26,774,239	30,326,366	34,236,375	38,536,367
<i>General administration & selling expenses</i>										
Administration expense	1,428,000	1,570,800	1,727,880	1,900,668	2,090,735	2,299,808	2,529,789	2,782,768	3,061,045	3,367,149
Administration benefits expense	142,800	157,080	172,788	190,067	209,073	229,981	252,979	278,277	306,104	336,715
Travelling expense	120,000	132,000	145,200	159,720	175,692	193,261	212,587	233,846	257,231	282,954
Communications expense (phone, fax, mail, internet, etc.)	126,000	138,600	152,460	167,706	184,477	202,924	223,217	245,538	270,092	297,101
Office expenses (stationary, entertainment, janitorial services, et	396,000	435,600	479,160	527,076	579,784	637,762	701,538	771,692	848,861	933,747
Professional fees (legal, audit, consultants, etc.)	100,000	110,000	121,000	133,100	146,410	161,051	177,156	194,872	214,359	235,795
Depreciation expense	2,455,410	2,455,410	2,455,410	2,459,298	2,459,298	2,475,806	2,480,307	2,480,307	2,480,307	2,485,517
Amortization of pre-operating costs	530,221	530,221	530,221	530,221	530,221	-	-	-	-	-
Subtotal	5,298,431	5,529,711	5,784,119	6,067,856	6,375,690	6,200,594	6,577,573	6,987,300	7,437,999	7,938,979
Operating Income	6,172,045	7,892,664	9,801,645	11,912,480	14,251,782	17,349,785	20,196,666	23,339,067	26,798,376	30,597,389
Earnings Before Interest & Taxes	6,172,045	7,892,664	9,846,045	11,912,480	14,305,862	17,423,384	20,196,666	23,339,067	26,894,676	30,597,389
Interest expense on long term debt (Project Loan)	2,297,243	1,891,992	1,435,345	920,784	340,963	-	-	-	-	-
Interest expense on long term debt (Working Capital Loan)	749,145	616,990	468,075	300,273	111,190	-	-	-	-	-
Subtotal	3,046,388	2,508,982	1,903,420	1,221,057	452,154	-	-	-	-	-
Earnings Before Tax	3,125,656	5,383,681	7,942,625	10,691,423	13,853,708	17,423,384	20,196,666	23,339,067	26,894,676	30,597,389
Tax	503,914	1,137,604	2,002,418	2,964,497	4,071,297	5,320,684	6,291,332	7,391,173	8,635,636	9,931,585
NET PROFIT/(LOSS) AFTER TAX	2,621,743	4,246,077	5,940,207	7,726,925	9,782,411	12,102,700	13,905,334	15,947,894	18,259,040	20,665,803

12.2 Balance Sheet

Calculations											Environmental Controlled Shed Farm - SMEDA
Balance Sheet											
											Rs. In actuals
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Assets											
<i>Current assets</i>											
Cash & Bank	1,506,923	5,459,063	8,474,326	13,150,494	19,921,544	28,802,252	47,617,848	69,233,422	93,908,243	121,934,035	176,075,618
Accounts receivable		4,055,862	4,218,097	4,555,545	4,919,988	5,313,587	5,738,674	6,197,768	6,693,590	7,229,077	7,807,403
Raw material inventory	11,913,429	13,374,613	14,289,351	15,268,990	16,318,310	17,442,457	18,646,973	19,937,828	21,321,449	22,804,764	-
Total Current Assets	13,420,352	22,889,538	26,981,774	32,975,029	41,159,842	51,558,295	72,003,495	95,369,018	121,923,282	151,967,876	183,883,021
<i>Fixed assets</i>											
Land	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Building/Infrastructure	24,511,983	23,286,384	22,060,784	20,835,185	19,609,586	18,383,987	17,158,388	15,932,789	14,707,190	13,481,590	12,255,991
Machinery & equipment	11,521,040	10,368,936	9,216,832	8,064,728	6,912,624	5,760,520	4,608,416	3,456,312	2,304,208	1,152,104	-
Furniture & fixtures	260,000	234,000	208,000	182,000	156,000	130,000	104,000	78,000	52,000	26,000	-
Office vehicles	135,200	108,160	81,120	54,080	27,040	217,741	174,193	130,645	87,096	43,548	-
Office equipment	74,000	49,333	24,667	85,664	57,110	28,555	99,167	66,111	33,056	114,798	76,532
Total Fixed Assets	38,502,223	36,046,813	33,591,403	31,221,658	28,762,360	26,520,803	24,144,164	21,663,857	19,183,550	16,818,041	14,332,524
<i>Intangible assets</i>											
Pre-operation costs	2,651,106	2,120,885	1,590,664	1,060,443	530,221	-	-	-	-	-	-
Total Intangible Assets	2,651,106	2,120,885	1,590,664	1,060,443	530,221	-	-	-	-	-	-
TOTAL ASSETS	54,573,681	61,057,236	62,163,841	65,257,129	70,452,423	78,079,098	96,147,659	117,032,874	141,106,832	168,785,917	198,215,544
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable		7,595,279	8,092,988	8,624,000	9,190,582	9,795,164	10,440,341	11,128,890	11,863,781	12,648,191	11,480,430
Total Current Liabilities	-	7,595,279	8,092,988	8,624,000	9,190,582	9,795,164	10,440,341	11,128,890	11,863,781	12,648,191	11,480,430
<i>Other liabilities</i>											
Deferred tax		503,914	1,641,518	3,643,936	6,608,433	10,679,730	16,000,414	22,291,746	29,682,919	38,318,555	48,250,140
Long term debt (Project Loan)	20,576,665	17,381,309	13,780,703	9,723,450	5,151,635	-	-	-	-	-	-
Long term debt (Working Capital Loan)	6,710,176	5,668,151	4,493,971	3,170,876	1,679,980	-	-	-	-	-	-
Total Long Term Liabilities	27,286,840	23,553,374	19,916,192	16,538,262	13,440,048	10,679,730	16,000,414	22,291,746	29,682,919	38,318,555	48,250,140
<i>Shareholders' equity</i>											
Paid-up capital	27,286,840	27,286,840	27,286,840	27,286,840	27,286,840	27,286,840	27,286,840	27,286,840	27,286,840	27,286,840	27,286,840
Retained earnings		2,621,743	6,867,820	12,808,027	20,534,952	30,317,363	42,420,063	56,325,397	72,273,291	90,532,331	111,198,134
Total Equity	27,286,840	29,908,583	34,154,660	40,094,867	47,821,793	57,604,204	69,706,904	83,612,237	99,560,131	117,819,171	138,484,974
TOTAL CAPITAL AND LIABILITIES	54,573,681	61,057,236	62,163,841	65,257,129	70,452,423	78,079,098	96,147,659	117,032,874	141,106,832	168,785,917	198,215,544

12.3 Cash Flow Statement

Calculations											Environmental Controlled Shed Farm - SMEDA
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
	Rs. In actuals										
<i>Operating activities</i>											
Net profit		2,621,743	4,246,077	5,940,207	7,726,925	9,782,411	12,102,700	13,905,334	15,947,894	18,259,040	20,665,803
Add: depreciation expense		2,455,410	2,455,410	2,455,410	2,459,298	2,459,298	2,475,806	2,480,307	2,480,307	2,480,307	2,485,517
amortization of pre-operating costs		530,221	530,221	530,221	530,221	530,221	-	-	-	-	-
Deferred income tax		503,914	1,137,604	2,002,418	2,964,497	4,071,297	5,320,684	6,291,332	7,391,173	8,635,636	9,931,585
Accounts receivable		(4,055,862)	(162,234)	(337,448)	(364,444)	(393,599)	(425,087)	(459,094)	(495,821)	(535,487)	(578,326)
Raw material inventory	(11,913,429)	(1,461,184)	(914,738)	(979,639)	(1,049,320)	(1,124,147)	(1,204,517)	(1,290,854)	(1,383,621)	(1,483,315)	22,804,764
Accounts payable		7,595,279	497,710	531,011	566,583	604,582	645,177	688,549	734,891	784,410	(1,167,761)
Cash provided by operations	(11,913,429)	8,189,520	7,790,049	10,142,181	12,833,761	15,930,063	18,914,763	21,615,574	24,674,822	28,140,590	54,141,583
<i>Financing activities</i>											
Project Loan - principal repayment		(3,195,355)	(3,600,606)	(4,057,253)	(4,571,815)	(5,151,635)	-	-	-	-	-
Working Capital Loan - principal repayment		(1,042,025)	(1,174,180)	(1,323,095)	(1,490,897)	(1,679,980)	-	-	-	-	-
Additions to Project Loan	20,576,665	-	-	-	-	-	-	-	-	-	-
Additions to Working Capital Loan	6,710,176	-	-	-	-	-	-	-	-	-	-
Issuance of shares	27,286,840	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares											
Cash provided by / (used for) financing activities	54,573,681	(4,237,380)	(4,774,786)	(5,380,348)	(6,062,711)	(6,831,615)	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(41,153,329)	-	-	(85,664)	-	(217,741)	(99,167)	-	-	(114,798)	-
Acquisitions											
Cash (used for) / provided by investing activities	(41,153,329)	-	-	(85,664)	-	(217,741)	(99,167)	-	-	(114,798)	-
NET CASH	1,506,923	3,952,140	3,015,263	4,676,168	6,771,050	8,880,707	18,815,596	21,615,574	24,674,822	28,025,792	54,141,583

13 KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Table 11: Operating Cost Assumption

Description	Details
Operational Days Per Year	365
Fumigation Days	10

13.2 Production Cost Assumptions

Table 12: Production Cost Assumption

Description	Detail
DOC (Day Old Chicks) (Rs.)	40
Feed Conversion Ratio (FCR) i.e. Feed required to gain 1 Kg weight (Kgs.)	1.85
Feed Requirement / bird / day - Kgs	0.08
Vaccination. Medication and Disinfection Cost per Bird (Rs.)	6.50
Feed Price per Bag (50 Kgs)	2,000
Cost of Feed per Kg – Rs.	40
Cost Growth Rate	5%
No. of Birds Per Flock	60,000
Excessive Birds @ 2% of Birds ¹	1,200
Total Birds Per Flock	61,200
Mortality in Birds @ 3% of Total Birds	1,836
Net Birds after Mortality Per Flock	59,364
Net Birds after Mortality for the Year (For Revenue)	415,548
Net Birds Calculation for Cost of Feed	No. of Birds Amount in Rs.
Total Mortal Birds	1,836
During first two weeks Mortal birds @ 50% of Total Mortality	918 43,024
During 3 rd and 4 th weeks Mortal birds @ 30% of Total Mortality	551 51,628
During 5 th and 6 th weeks Mortal birds @ 20% of Total Mortality	367 51,628
Cost of Feed Consumed by Mortal Birds Per Flock	1,836 146,280

¹ Excessive birds are given as per market practices.

Cost of Feed Consumed by Remaining Birds	59,364	8,346,578
Total Cost of Feed Consumed by the Birds Per Flock		8,492,859
Total Cost of Feed Consumed by the Birds Per Year		59,450,010

13.3 Revenue Assumptions

Table 13: Revenue Assumptions

Description	Detail
Sales Price per Kg	Rs. 125
Avg. weight by Bird	1.90 Kgs
Sale Price Growth Rate	8%

13.4 Financial Assumptions

Table 14: Financial Assumptions

Description	Details
Debt	50%
Equity	50%
Interest Rate on Debt	12%
Debt Tenure	5 Years
Inflation Growth Rate	10%
Electricity Price Growth Rate	10%
Salaries Growth Rate	10%