
Pre-Feasibility Study

CAMEL FARMING



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

Camel Farm is a project of the livestock sector. This project is proposed to be set up in any rural and peri-urban areas around the metropolitan and other major cities across the country having abundant water and availability of fodder, make a better choice for such farming. These areas should also have access to livestock mandies and veterinary services.

In this pre-feasibility study, all the calculations have been based on a breeder herd size of 55 camels, (2 males and 53 females). 70% of the females in the parent herd are assumed to be pregnant and would give birth to 38 camel calves after every 2 years. The male camel calves are sold after being raised for two years. The female calves would be added to the breeding herd and would reproduce after 5 years and add to the milk production. Camel cows would be producing approximately 2,250 litres of milk for a year.

The milk from the camel cow would be sold directly to consumers or processing companies. The reported milk yield ranges between 900 and 4,000 litres in a lactation period of 250 to more than 500 days. The average daily yield under different management systems is reported to vary from 3 to 9 litres. The females are milked twice to four times a day in Pakistan.

The total initial cost for setting up a Camel Farm of proposed capacity is estimated at Rs. 20.80 million. The project is proposed to be financed through 50% debt and 50% equity. The NPV is projected around Rs. 16.31 million, with an IRR of 30% and a payback period of 4.22 years. The legal business status of this project is proposed as '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 **Camel 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 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

Camel breeder herd would be raised on conventional farming system. Adult breeding herd would be procured from local animal market. Milk of the camel cow would be sold directly to consumers or processing companies. In addition, the farm would work for production of camels for sacrificial purpose as well as meat purpose. A herd of 55 camels would be sufficient to start the farm, having 2 males and 53 female camels. 70% of the female camels purchased are assumed to be pregnant and would give birth after 6 months. Throughout the project life 70% of the female camels in the parent herd are assumed to give birth to 38 camel calves every two years. The lactation period of female camels assumed to last for 1.5 years. The male camels would be raised for 2 years and sold in different animal markets.

Camel milk is slightly saltier as compared to cow's milk, three times as rich in Vitamin C and is known to be rich in iron, unsaturated fatty acids and B vitamins.

Camel is most efficient animal in milk production on per unit feed consumption basis. Research shows that a cow in rangelands conditions needs 9.1 kg of dry matter feed to produce one litre of milk, while camel produce one litre of milk by consuming only 1.9 kg of dry matter feed under the same conditions.

Camel meat is relatively high in polyunsaturated fatty acid in comparison to beef. This is an important factor in reducing the risk of cardiovascular diseases. Camel meat is also used for remedial purposes for diseases such as hyperacidity, hypertension, pneumonia and respiratory disease. Camel lean meat contains about 77% water, 19% protein, 2.8% fat, and 1.2% ash with a small amount of intramuscular fat, which renders it a healthy food for humans. Camel meat has raspberry red to dark brown color.

The specific requirement would be met by maintaining the herd in harsh environments. Proper feed would be provided and good animal husbandry practices would be followed, monitored by the concerned staff.

5.1 Installed and Operational Capacities

In this pre-feasibility study, all the calculations have been based on a breeder herd size of 55 camels, (2 males and 53 female). 70% of the females in the parent herd are assumed to be pregnant and would give birth to 38 camel calves every 2 years. The male camel calves are sold after being raised for two years. The female calves would be added to the breeding herd and would reproduce after 5 years and add to the milk production. Camel cows would be producing approximately 2,250 liters of milk in a year. Detail of Installed and Operational capacity is given in annexure.

6 CRITICAL FACTORS

Following are the factors critical for the success of this business venture:

- ⇒ Technical know-how, relevant expertise and experience of entrepreneur.
- ⇒ Selection of high quality breeding camels.
- ⇒ Selection of appropriate location, farm tools and equipment.
- ⇒ The farm supervisor should ensure timely feeding, watering, lighting, vaccination, medication, temperature / humidity control and culling of non-productive camels as per best husbandry practices.

- ⇒ Sanitation and disinfection program should be strictly followed and regularly monitored.
- ⇒ Camels should be given enough space according to their age as less space could arise different complexities.
- ⇒ Feed should not be stored for a long time as it would lose its nutrition and there is a chance that feed would get fungal and can prove to be poisonous.
- ⇒ The entrepreneur should be well aware of the supply and demand of camel milk and meat.

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

Metropolitan cities like Lahore, Karachi, Peshawar, Quetta, Multan, Bahawalpur, Faisalabad, Rawalpindi, Karachi, Hyderabad, Ziarat, D.I. Khan etc. are major markets of camel milk and meat. The rural and peri-urban areas around these and other major cities across the country with abundant water and availability of fodder make a better choice for such farming; provided access to livestock mandies and veterinary services is ensured.

8 POTENTIAL TARGET CUSTOMERS / MARKETS

Camel milk and meat is a good source of protein and iron. The proposed Camel Farm will mainly offer 2 years old male camel for meat and selling purpose, and milk to sell in local market and milk processing companies. Therefore, major target markets for the proposed project are local buyers, who generally trade for these products. Major clients for meat and milk are Super Stores, Meat Markets, Restaurants, hotels (including various 3 to 5 Star Hotel Chains) and Cattle Markets across the country.

9 PROJECT COST SUMMARY

A detailed financial model has been developed to analyze the commercial viability of Camel 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. 7.03 Million in the year one.

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)	30%
Payback Period (Yrs.)	4.22
Net Present Value (Rs.)	16,308,862

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 (50%)	Rs. 10,399,307
Bank Loan (50%)	Rs. 10,399,307
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 3: Project Cost

Description	Amount (Rs.)
Land	2,000,000
Building/Infrastructure	4,104,115
Animals	11,100,000
Farm Equipment	75,000
Furniture & fixtures	50,000
Pre-operating costs	105,000
Total Capital Costs	17,434,115

Working Capital	
Raw material inventory*	2,080,500
Cash	1,284,000
Total Working Capital	3,364,500
Total Investment	20,798,615

* Raw Material Inventory is calculated for 12 months

9.4 Space Requirement

Approximately, 8 kanal of land would be required for setting up the proposed Camel 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 4: Space Requirement

Description	Area (Sq.ft.)	Cost / Sq.ft	Amount (Rs.)
Shed for breeding animals	6,300	300	1,890,000
Shed for other animals	1,800	300	540,000
Open area for animals	33,428		
Workers Room	180	1,000	180,000
Store	180	700	126,000
Kitchen	100	800	80,000
Washroom	72	800	57,600
Boundary Wall (run. feet)	820	1,500	1,230,515
Total Infrastructure	42,060		4,104,115

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 Animals, Furniture and Farm Equipment Requirement

Detail of Camels, Furniture and Farm equipment are given below in table;

Table 5: Animals & Farm Equipment Requirement

Description	Quantity	Cost Per Animal	Amount (Rs.)
Female Breeders	53	200,000	10,600,000
Male Breeders	2	250,000	500,000
Furniture			50,000
Farm Equipment			75,000
Total			11,225,000

9.6 Raw Material Requirement

The detail of raw material along with estimated cost is provided as annexure.

9.7 Human Resource Requirement

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

Table 6: Human Resource Requirement (Year 1)

Description	No. of Employees	Monthly Salary per person (Rs.)
Farm Manager	1	35,000
Helper at Farm	3	15,000
Total	4	

9.8 Utilities and Other Costs

An essential cost to be borne by the project is the cost of electricity which is estimated to be Rs. 90,000 in the first year of operations. The travelling expense being essential for purchase of quality animals and is estimated Rs. 150,000 in year one.

9.9 Revenue Generation

Detail of Revenue along with its assumption is provided in annexure.

10 CONTACT DETAILS

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

Consultant / Supplier	Contact	Website
Department of Livestock Production University of Veterinary & Animal Sciences (UVAS), Lahore	+92-42-99211374, 99211449	http://www.uvas.edu.pk
Department of Livestock Management, Faculty of Animal Husbandry, University of Agriculture, Faisalabad, Pakistan	+92 41 9200161-70	http://www.uaf.edu.pk
Department of Livestock Production and Management PMAS-Arid Agriculture University, Rawalpindi.	+92-51-9292159	http://www.uaar.edu.pk

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
Trade Development Authority of Pakistan (TDAP)	www.tdap.gov.pk
Security Commission of Pakistan (SECP)	www.secp.gov.pk

Federation of Pakistan Chambers of Commerce and 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/

12 ANNEXURE

12.1 Breeding Plan

Calculation Basis										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
TOTAL PARENT HERD	55	55	55	55	55	55	55	55	55	55
Culling in parent herd of female stock	1	1	1	1	1	1	1	1	1	1
Remaining herd	54	54	54	54	54	54	54	54	54	54
Addition to the female herd	1	1	1	1	1	1	1	1	1	1
Feed consumption for parent herd	57	57	57	57	57	57	57	57	57	57
FEMALE HERD	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Females in Parent herd	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
No. of females pregnant/lactating	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0
No. of females lactating		38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0
No. of calves by Parent herd										
Calving at 0.5 years (Herd 1)	18.0									
Calving at 2.5 years (Herd 2)			18.0							
Calving at 4.5 years (Herd 3)					18.0					
Calving at 6.5 years (Herd 4)							18.0			
Calving at 8.5 years (Herd 5)									18.0	
No. of females pregnant/lactating in Herd 1					12.0	12.0	12.0	12.0	12.0	12.0
No. of females lactating in Herd 1						12.0	12.0	12.0	12.0	12.0
No. of calves by first herd (0.5 years)										
Calving at 5.5 years						6.0				
Calving at 7.5 years								6.0		
Calving at 9.5 years										6.0
No. of females pregnant/lactating in Herd 2							12.0	12.0	12.0	12.0
No. of females lactating in Herd 2								12.0	12.0	12.0
No. of calves by second herd (2.5 years)										
Calving at 7.5 years								6.0		
Calving at 9.5 years										6.0
No. of females pregnant/lactating in Herd 3									12.0	12.0
No. of females lactating in Herd 3										12.0
No. of calves by second herd (4.5 years)										
Calving at 9.5 years										6.0
Mortality in new born females	1	0	1	0	1	1	1	1	1	1
New born Female Animals	18	0	18	0	18	6	18	12	18	18
Mortality of new borns										
Total new born	18	0	18	0	18	6	18	12	18	18
Total female animal	18	18	36	36	54	60	78	90	108	126
Culling in Parent herd	1	1	1	1	1	1	1	1	1	1
Culling in herd 1					1	1	1	1	1	1
Culling in herd 2							1	1	1	1
Culling in herd 3									1	1
Total no. of animals culled	1	1	1	1	2	2	3	3	4	4

MALE HERD	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Females in parent stock	53	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
No. of females pregnant	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0
No. of male calves by Parent herd										
Calving at 0.5 years	20.0									
Calving at 2.5 years			20.0							
Calving at 4.5 years					20.0					
Calving at 6.5 years							20.0			
Calving at 8.5 years									20.0	
No. of male calves by first herd (0.5 years)										
Calving at 5.5 years						6.0				
Calving at 7.5 years								6.0		
Calving at 9.5 years										6.0
No. of male calves by second herd (2.5 years)										
Calving at 7.5 years								6.0		
Calving at 9.5 years										6.0
No. of male calves by second herd (4.5 years)										
Calving at 9.5 years										6.0
New born Male Animals	20	0	20	0	20	6	20	12	20	18
Mortality of new borns	1	0	1	0	1	1	1	1	1	1
Total new born	19	0	19	0	19	5	19	11	19	17
Male calves sold after 2 years			19	0	19	0	19	5	19	11
Total No. of Male Animals	19	19	19	19	19	24	24	30	30	36
Herd size	92	92	110	110	128	139	157	175	193	217
Mortality in herd	1	1	2	2	2	2	2	2	2	3
Total Herd size	91	91	108	108	126	137	155	173	191	214

12.2 Raw Material Cost Calculation

COST ASSUMPTIONS										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Feed Cost per day per animal										
Feed cost for pregnant/lactating animals	150	161	172	184	197	210	225	241	258	276
Feed cost for other animals	100	107	114	123	131	140	150	161	172	184
Feed cost per day for all animals										
Feed for pregnant/lactating animals	2,850	3,050	3,263	3,491	4,915	5,260	6,978	7,467	9,536	10,203
Feed for other animals	2,850	3,050	4,351	4,655	6,161	7,363	9,229	11,321	13,660	16,914
Feed expense per year										
Feed for pregnant/lactating animals	1,040,250	1,113,068	1,190,982	1,274,351	1,794,152	1,919,743	2,547,115	2,725,413	3,480,616	3,724,259
Feed for other animals	1,040,250	1,113,068	1,587,976	1,699,135	2,248,671	2,687,640	3,368,764	4,132,077	4,985,747	6,173,546
Total annual feed expense	2,080,500	2,226,135	2,778,959	2,973,486	4,042,823	4,607,382	5,915,879	6,857,490	8,466,362	9,897,805
Purchase price per female breeders	200,000	214,000	228,980	245,009	262,159	280,510	300,146	321,156	343,637	367,692
Total cost of female breeders	10,600,000									
Total cost of male breeders	500,000									
Total cost of buying replacement herd - fem	200,000	214,000	228,980	245,009	524,318	561,021	900,438	963,469	1,374,549	1,470,767
Total cost of camel purchase	200,000	214,000	228,980	245,009	524,318	561,021	900,438	963,469	1,374,549	1,470,767

12.3 Revenue Calculations

REVENUE ASSUMPTIONS										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Saleable milk production per animal per year	2025	2025	2025	2025	2025	2025	2025	2025	2025	2025
Per year milk production	76,950	76,950	76,950	76,950	101,250	101,250	125,550	125,550	149,850	149,850
Price per litre of milk	90	99	109	120	132	145	159	175	193	212
Revenue from sale of milk	6,925,500	7,618,050	8,379,855	9,217,841	13,341,611	14,675,772	20,017,754	22,019,529	28,909,510	31,800,462
Male calves sold after 2 years	0	0	19	0	19	0	19	5	19	11
Sales price of 2 year male animal	225,000	247,500	272,250	299,475	329,423	362,365	398,601	438,461	482,307	530,538
Revenue from sales of 2 year old	-	-	5,172,750	-	6,259,028	-	7,573,423	2,192,307	9,163,842	5,835,921
Female breeders sold after culling	1	1	1	1	2	2	3	3	4	4
Sales price of female breeders for culling	100,000	110,000	121,000	133,100	146,410	161,051	177,156	194,872	214,359	235,795
Revenue from female breeders for culling	100,000	110,000	121,000	133,100	292,820	322,102	531,468	584,615	857,436	943,179

12.4 Income Statement

Calculations										SMEDA
Income Statement										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	7,025,500	7,728,050	13,673,605	9,350,941	19,893,459	14,997,874	28,122,645	24,796,451	38,930,788	38,579,561
<i>Cost of sales</i>										
Cost of Camel Purchase	200,000	214,000	228,980	245,009	524,318	561,021	900,438	963,469	1,374,549	1,470,767
Feed expense	2,080,500	2,226,135	2,778,959	2,973,486	4,042,823	4,607,382	5,915,879	6,857,490	8,466,362	9,897,805
Direct labor	540,000	594,000	871,200	958,320	1,317,690	1,449,459	1,913,286	2,104,614	2,700,922	3,395,445
Total cost of sales	2,820,500	3,034,135	3,879,139	4,176,814	5,884,831	6,617,862	8,729,603	9,925,573	12,541,833	14,764,017
Gross Profit	4,205,000	4,693,915	9,794,466	5,174,126	14,008,628	8,380,012	19,393,042	14,870,878	26,388,955	23,815,544
<i>General administration & selling expenses</i>										
Administrative Salaries expense	420,000	462,000	508,200	559,020	614,922	676,414	744,056	818,461	900,307	990,338
Electricity expense	90,000	99,000	108,900	119,790	131,769	144,946	159,440	175,385	192,923	212,215
Water expense	24,000	26,400	29,040	31,944	35,138	38,652	42,517	46,769	51,446	56,591
Gas expense	12,000	13,200	14,520	15,972	17,569	19,326	21,259	23,385	25,723	28,295
Travelling expense	150,000	157,500	165,375	173,644	182,326	191,442	201,014	211,065	221,618	232,699
Communications expense (phone)	36,000	37,800	39,690	41,675	43,758	45,946	48,243	50,656	53,188	55,848
Office expenses	12,000	12,600	13,230	13,892	14,586	15,315	16,081	16,885	17,729	18,616
Depreciation expense	217,706	217,706	217,706	217,706	217,706	217,706	217,706	217,706	217,706	217,706
Amortization of pre-operating costs	21,000	21,000	21,000	21,000	21,000	-	-	-	-	-
Subtotal	982,706	1,047,206	1,117,661	1,194,641	1,278,775	1,349,748	1,450,317	1,560,311	1,680,641	1,812,308
Operating Income	3,222,294	3,646,709	8,676,806	3,979,485	12,729,853	7,030,264	17,942,725	13,310,566	24,708,314	22,003,236
Earnings Before Interest & Taxes	3,222,294	3,646,709	8,676,806	3,979,485	12,729,853	7,030,264	17,942,725	13,310,566	24,708,314	22,003,236
Interest expense on long term debt (Project Loan)	973,200	801,520	608,067	390,079	144,445	-	-	-	-	-
Interest expense on long term debt (Working Capital Loan)	120,798	-	-	-	-	-	-	-	-	-
Subtotal	1,093,997	801,520	608,067	390,079	144,445	-	-	-	-	-
Earnings Before Tax	2,128,297	2,845,189	8,068,739	3,589,406	12,585,408	7,030,264	17,942,725	13,310,566	24,708,314	22,003,236
Tax	270,159	430,797	2,043,558	616,851	3,624,392	1,680,092	5,499,453	3,878,198	7,867,409	6,920,632
NET PROFIT/(LOSS) AFTER TAX	1,858,138	2,414,392	6,025,181	2,972,555	8,961,016	5,350,173	12,443,272	9,432,369	16,840,904	15,082,604

12.5 Balance Sheet

Calculations											SMEDA
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											
<i>Current assets</i>											
Cash & Bank	1,284,000	180,724	1,172,006	7,429,512	8,218,145	18,167,466	23,990,906	41,040,633	52,758,692	76,031,184	107,866,716
Accounts receivable		288,719	303,155	439,760	473,107	600,912	716,945	886,038	1,087,379	1,309,464	1,592,678
Raw material inventory	2,080,500	2,226,135	2,778,959	2,973,486	4,042,823	4,607,382	5,915,879	6,857,490	8,466,362	9,897,805	-
Total Current Assets	3,364,500	2,695,579	4,254,120	10,842,758	12,734,075	23,375,761	30,623,731	48,784,161	62,312,434	87,238,453	109,459,395
<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	4,104,115	3,898,909	3,693,703	3,488,497	3,283,292	3,078,086	2,872,880	2,667,674	2,462,469	2,257,263	2,052,057
Animals	11,100,000	11,100,000	11,100,000	11,100,000	11,100,000	11,100,000	11,100,000	11,100,000	11,100,000	11,100,000	11,100,000
Farm equipment	75,000	67,500	60,000	52,500	45,000	37,500	30,000	22,500	15,000	7,500	-
Furniture & fixtures	50,000	45,000	40,000	35,000	30,000	25,000	20,000	15,000	10,000	5,000	-
Total Fixed Assets	17,329,115	17,111,409	16,893,703	16,675,997	16,458,292	16,240,586	16,022,880	15,805,174	15,587,469	15,369,763	15,152,057
<i>Intangible assets</i>											
Pre-operation costs	105,000	84,000	63,000	42,000	21,000	-	-	-	-	-	-
Total Intangible Assets	105,000	84,000	63,000	42,000	21,000	-	-	-	-	-	-
TOTAL ASSETS	20,798,615	19,890,988	21,210,823	27,560,756	29,213,367	39,616,347	46,646,611	64,589,336	77,899,902	102,608,216	124,611,452
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Total Current Liabilities	-	-	-	-	-	-	-	-	-	-	-
<i>Other liabilities</i>											
Deferred tax		270,159	700,956	2,744,514	3,361,365	6,985,758	8,665,849	14,165,302	18,043,500	25,910,909	32,831,541
Long term debt (Project Loan)	8,717,057	7,363,383	5,838,030	4,119,223	2,182,428	-	-	-	-	-	-
Long term debt (Working Capital Loan)	1,682,250	-	-	-	-	-	-	-	-	-	-
Total Long Term Liabilities	10,399,307	7,633,543	6,538,986	6,863,737	5,543,794	6,985,758	8,665,849	14,165,302	18,043,500	25,910,909	32,831,541
<i>Shareholders' equity</i>											
Paid-up capital	10,399,307	10,399,307	10,399,307	10,399,307	10,399,307	10,399,307	10,399,307	10,399,307	10,399,307	10,399,307	10,399,307
Retained earnings		1,858,138	4,272,530	10,297,711	13,270,266	22,231,282	27,581,454	40,024,726	49,457,095	66,297,999	81,380,604
Total Equity	10,399,307	12,257,445	14,671,837	20,697,018	23,669,573	32,630,589	37,980,761	50,424,033	59,856,402	76,697,307	91,779,911
TOTAL CAPITAL AND LIABILITIES	20,798,615	19,890,988	21,210,823	27,560,756	29,213,367	39,616,347	46,646,611	64,589,336	77,899,902	102,608,216	124,611,452

12.6 Cash Flow Statement

SMEDA											
Calculations											
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
<i>Operating activities</i>											
Net profit		1,858,138	2,414,392	6,025,181	2,972,555	8,961,016	5,350,173	12,443,272	9,432,369	16,840,904	15,082,604
Add: depreciation expense		217,706	217,706	217,706	217,706	217,706	217,706	217,706	217,706	217,706	217,706
amortization of pre-operating costs		21,000	21,000	21,000	21,000	21,000	-	-	-	-	-
Deferred income tax		270,159	430,797	2,043,558	616,851	3,624,392	1,680,092	5,499,453	3,878,198	7,867,409	6,920,632
Accounts receivable		(288,719)	(14,436)	(136,605)	(33,347)	(127,805)	(116,033)	(169,093)	(201,341)	(222,085)	(283,215)
Raw material inventory	(2,080,500)	(145,635)	(552,824)	(194,527)	(1,069,337)	(564,560)	(1,308,497)	(941,611)	(1,608,873)	(1,431,442)	9,897,805
Cash provided by operations	(2,080,500)	1,932,648	2,516,636	7,976,313	2,725,427	12,131,749	5,823,441	17,049,727	11,718,059	23,272,492	31,835,532
<i>Financing activities</i>											
Project Loan - principal repayment		(1,353,674)	(1,525,354)	(1,718,807)	(1,936,794)	(2,182,428)	-	-	-	-	-
Working Capital Loan - principal repayment		(1,682,250)	-	-	-	-	-	-	-	-	-
Additions to Project Loan	8,717,057	-	-	-	-	-	-	-	-	-	-
Additions to Working Capital Loan	1,682,250	-	-	-	-	-	-	-	-	-	-
Issuance of shares	10,399,307	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares											
Cash provided by / (used for) financing activities	20,798,615	(3,035,924)	(1,525,354)	(1,718,807)	(1,936,794)	(2,182,428)	-	-	-	-	-
<i>Investing activities</i>											
Capital expenditure	(17,434,115)	-	-	-	-	-	-	-	-	-	-
Acquisitions											
Cash (used for)/ provided by investing activities	(17,434,115)	-	-	-	-	-	-	-	-	-	-
NET CASH	1,284,000	(1,103,276)	991,282	6,257,506	788,633	9,949,320	5,823,441	17,049,727	11,718,059	23,272,492	31,835,532

13 KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Description	Details
Office Expenses (Stationery, Entertainment etc.)	Rs. 12,000 (Year 1)
Travelling Expenses	Rs. 150,000 (Year 1)
Operating Cost Growth Rate	5%

13.2 Production Cost Assumptions

Description	Details
Cost of female breeders (Rs.)	200,000
Cost of male breeders (Rs.)	250,000
Per day feed cost for pregnant/lactating camels (Rs.)	150
Per day feed cost for other animals (Rs.)	100
Production Cost Growth Rate	7%

13.3 Revenue Assumptions

Description	Details
Growth in Sales Price	10%
Sales price per 2 years male animal	Rs. 225,000
Sales price of female breeders for culling	Rs. 100,000
Milk Sale Price	Rs. 90 per Liter

13.4 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%