

Pre-Feasibility Study

Aviculture (Canary Birds) Farming



Small and Medium Enterprises Development Authority

Ministry of Industries & Production

Government of Pakistan

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1 DISCLAIMER

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2 EXECUTIVE SUMMARY

Aviculture (Canary Birds) farming is recommended to be located in potential areas as Quetta, Lahore, Islamabad, Karachi and Peshawar. The primary product of the project includes Canary Bird. The initial capacity of the proposed intervention is 50 pairs of Canary with initial capital utilization of 65%.

Total Cost Estimates is **Rs. 2,169,429** with fixed investment **Rs.1,749,121** and working capital **Rs. 420,309**.

Given the cost assumptions, Internal Rate of Return (IRR) and payback period are **41%** and **3.23 years** respectively.

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

- The habitat of the fancy birds is critical for the success of the project. The location of the aviary for canary birds must be adjacent to the natural habitat.
- It is recommended to adopt Model Aviculture Program Guidelines for housing, feeding, watering, lighting, breeding, brooding, quarantine and health management birds in aviary.
- The feed, vaccines and medicines should be procured from reliable sources.

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 **Aviculture (Canary Birds) 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

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

- **Technology:** The proposed unit will follow the Model Aviculture Program Guidelines for husbandry practices including housing, lighting, feeding, watering, breeding, egg hatching and disease prevention. The aviculture facility will be in line with bird's needs for natural habitat environment.
- **Location:** The aviary unit would be located in potential market as Quetta, Lahore, Karachi, Peshawar and other cities where weather is suitable for fancy birds like canary.
- **Product:** The primary product of the proposed project would be Canary birds as pets.
- **Target Market:** The target market for the proposed project would be house hold customers with a hobby of bird keeping, breeder farms and markets.
- **Employment Generation:** The proposed project will provide direct employment to 3 people.

5.1 Aviary

Aviculture (Canary Birds) a technical process and proper handling is crucial for project success. Following guidelines are important for enduring project success;

5.1.1 Selection of Breed

The domestic canary, simply known as the canary, (*Serinus canaria domestica*) is a domesticated form of the wild canary, a small songbird in the finch family originating from the Macaronesian Islands (Azores, Madeira and Canary Islands). Canaries were first bred in captivity in the 17th century. They were brought over by Spanish sailors to Europe. First the birds were only owned by the rich but eventually the local citizens started to breed them and became very popular. Many breeds arose through selective breeding, and they are still very popular today for their voice.

The canary is generally between 5" to 8" (12-20 cm) in length. Their plumage is very bright starting in the yellows, yellow-greens, greens, shades of orange to

shades of red. The canary life span varies somewhat from bird to bird. The average life span of a bred female canary is 5 - 6 years and for a male canary, up to 10 years, though there have been canaries that have lived up to 20 years. There are basically three selectively bred canary types. The types of canary breeds commonly available in the pet industry include:

A. Color Bred Canary

This group includes birds specifically bred for various colors. Also known as Color Bred Canaries, they have been developed in just about every conceivable canary color. This group also includes the Red Factor Canary which can be found in all shades from very light oranges, coppers, deep red-oranges, to almost red. The Red Factor is a strain that many experts agree was achieved from interbreeding the canary with the Red-Hooded Siskin which is very rare and is endangered species.

B. Song Canary

This group includes birds specifically bred for their canary song, well known are *American Singer Canary*, *Roller Canary*, *Spanish Timbrado* and *Waterslager Canary*

C. Type Canary

This group includes birds specifically bred for special characteristics, such as size, shape, or feathering. The Lancashire Canary is the largest breed available today. Other unique characteristics can be found in quite a number of other canaries bred for type, including:

- a. *Belgian Fancy Canary*
- b. *Border Fancy Canary*
- c. *Crested Canary*
- d. *Fife Fancy Canary*
- e. *Gloster Fancy Canary*
- f. *Lizard Canary*
- g. *Northern Dutch Frilled Canary*
- h. *Norwich Canary*
- i. *Parisian Frilled Canary*
- j. *Stafford Canary*
- k. *Yorkshire Canary*

Canary birds are fairly inexpensive little birds and widely available in the pet industry. The selection of birds is based upon characteristics such as color, song, size, feathering and shape etc. young birds, those that have completed their first molt, are easiest to get in the fall season just before the end of the breeding season. These birds are best if tamed or trained for pet shows.

5.1.2 Selection of Site

For the purpose of breeding canary birds in indoor environment, choose a bright area. A roomy indoor aviary, a bird room, or an outdoor aviary (depending on area provision) are all good choices. The aviary needs plenty of light and fresh air. The outdoor aviary needs to have a protected shelter that can be heated and cooled where necessary and a canary flight cage made with about a 3/8" wire mesh as anything larger will let the rodents into the cage.

5.1.3 Housing and Cage Management

Although canaries require very little time, a clean environment as well as fresh food and water daily is a must to prevent disease and illness. The basic cage care includes daily cleaning of the water and food dishes. Every two to three days change the paper on the bottom of the cage. Weekly wash and dry the entire cage, including the perches.

Canaries like wide open spaces, hence provision of roomy canary cage is essential, provided with dishes for food, water, and treats as well as an area for a bath. For one pair, the cage should be a minimum of about 24" x 16" x 16" inches (or even bigger for the larger canary breeds). For the canary bird nesting material, in addition to the normal cage accessories such as perches, seed and water pots, and sand or newspaper to cover the cage floor, place a layer of soft wood shavings, corn cob bedding, or other canary nesting material in the nest. Canary nests are available at the pet stores and readily accepted by the canary birds. However, do try to stay away from the "flimsy" ones that fall down easily. There is nothing sadder than broken fertile eggs at the bottom of the cage due to that happening. The flimsy ones don't last long either. You may think you are saving money, but you really aren't due to the loss of eggs or chicks and constant replacement cost of these type of cages. Two or three good softwood perches about 3/8" to 3/4" in diameter should be provided. Tree branches of a similar size also make good perches.

The cages should be placed at eye level or at about 6 feet off the floor, with proper source of light and ventilation, though free from drafts. It should be away from doors and windows where direct exposure to sunlight can make it overly warm, but placed close to at least one wall to enhance a feeling of security.

Average daytime temperatures can range from between 70-75 degrees Fahrenheit with nighttime temperatures down to 65 degrees Fahrenheit. The cage should be covered at night to prevent drafts and disturbances.

5.1.4 Feeding and Watering

The bird food in a canary diet consisting of a good seed mixture (vitamin coated) supplemented with sprouted seed, various fruits, green foods, and commercial pellets are generally regarded suitable. Fresh food and water must be provided daily.

Fresh canary seed is their everyday food and vitamin coated seed mixes are readily available at a pet store. A single canary will eat about one teaspoon of seed a day and canaries will rarely overeat, though they may need to eat a bit more when the weather is cold or during their moulting stage.

Pelleted diets are also available and contain vitamins and more protein than seed, making additional supplementation unnecessary. Supplements are very important and can be put in an extra dish and rotated for variety. Daily supplements that canaries like to eat include greens such as kale, broccoli, dandelions, spinach, celery, peas, and watercress. Small amounts of fruits such as apples, oranges, grapes, bananas, and melons can also be offered. Canary treats of seed with honey, fruits and vegetables are fun for your bird too, as well as nutritious.

About once a week, offer an additional protein supplement such as egg biscuit

As mineral source, provide cuttlebone or a mineral block. The calcium provided in this way will give birds a firm beak, strong eggshells when breeding, and will prevent egg binding. The lime in the cuttlebone also aids in digestion.

5.1.5 Breeding and Brooding Management

The male and female birds are placed in the breeding cage in the breeding season which tends to begin in the second half of March. Soon the hen begins to build a nest. In most cases, they will breed in open cup nests, sometimes even carrying nesting material to their food dish, if she decides that this is a good place to raise a family.

The female should be at least one year old and the male should not be over five years old. Both the male and female canary birds must be very well fed and healthy. The male and female should be introduced to each other in separate cages side by side for a few weeks before putting them together so they can become familiar with each other and prevent fights.

The diet should be supplemented with bits of niger seed, spinach, lettuce and dandelion leaves. Also put a bit of olive oil or wheat germ oil on their egg biscuit to prevent constipation and egg binding in the female.

A breeding box cage is good and should be mounted with nesting pan of ceramic, metal, earthenware or a wicker nest inside the cage. For the canary bird nesting material, place a layer of soft wood shavings, corn cob bedding, or other canary nesting material in the nest.

The female will lay an egg a day until there are two to six eggs. Remove each egg gently with a spoon and replace it with a dummy egg until she is done laying. The removed eggs can be placed on cotton, sand, cornmeal, oatmeal or wood shavings and turned once a day until you return them to the nest when the female is done laying. Some breeders believe it is best to remove the male at this time so he will not interfere with the female and keep her from brooding. Others feel that the male may tend the female while she is brooding. If you choose to leave the male, make sure the female is staying on the nest brooding the eggs.

After 12 days, offer the female a bath. She will bathe and return to the nest, dampening the bedding and moisturizing the eggs. This softens the membranes of the eggs for the young that are about to hatch. The eggs will hatch on the 13th or 14th day. At this time provide the female with nesting food and soft foods of bread soaked in milk, hard-boiled egg yolks and a bit of apple. At about two weeks, return the male to the nest to help feed the young.

The hatchlings are born blind and featherless. At about two and a half to three weeks, they will begin to feather and leave the nest to perch on low perches. They will be independent and eating seed at about six weeks and the female may be nesting again.

Note: The breeding pair should not let breed too much or they will start to produce weak chicks. Give canary birds a bath at least once a week and daily during the summer by placing a dish on the bottom of the cage. A bath with an enclosure will help to keep the water splashing to a minimum. Bathing is very important to canaries during molting and breeding. For birds grooming, their nails will occasionally need to be trimmed carefully, never to clip into the vein as the bird

can quickly bleed to death. Bird nail trimmers and styptic powder to stop the bleeding are available at pet shops.

5.1.6 Social Behavior

Canaries are very social with good personalities. They will not harm children, visitors, or other pets. They are, however, timid birds and should not be housed with parakeets, lovebirds or other hookbills that tend to be more aggressive birds by nature. Pairing up with two male canaries in a cage can cause fights, but canaries can easily be housed in a spacious cage with other canaries, finches, and other hardbills.

5.1.7 Disease Prevention and Quarantine Measures

The aviary management is very crucial for the success of the project. In addition to above, following points must also be considered;

- The feeding must be done as per nutritional requirements and schedule provided by an expert or veterinarian.
- Timely vaccination as per vaccination schedule and diseases prevention measures should be adopted as regular practice at the facility.
- Canaries are very hardy birds and almost all illnesses can be traced to improper diet, dirty cages, and drafts. A balanced diet and plenty of exercise will prevent most canary illnesses. If a canary becomes ill it will lose weight rapidly, so it is essential that you know your bird and watch for real drastic changes as indications of illness.
- Some signs of illness to be aware of are droppings that are not black and white, ruffled feathers, lack of appetite, wheezing, molting out of season, does not sing, and acts feeble and run down.
- Some of the common illnesses and injuries canary could contract are broken wings or legs, cuts and open wounds, overgrown beaks and nails, ingrown feathers (feather lumps), feather picking, false molt caused by mishandling or a poor diet, confinement cramps in the legs from a cage that is too small, weight loss, heat stroke, shock, concussion, egg binding, diarrhea, mites, colds, baldness, scaly legs, sore eyes, tumors, loss of song, constipation, and diarrhea.

- The bird should be isolated in a hospital cage covered from front, provided with light bulb or heating pad to keep the interior of the cage at a constant temperature of 85 degrees Fahrenheit. Remove all perches and put food and water dishes on the floor. If no improvements seen within a few hours, the bird should be taken to an avian veterinarian for diagnosis and treatment.

5.2 Installed and Operational Capacities

The Aviculture (Canary Birds) will start working initially with 50 pairs of canary birds and produce 464 birds (Off springs). The probability of mortality rate is 10% & capacity utilization of 65% for first year.

6 CRITICAL FACTORS

An analysis of the Strengths, Weaknesses, Opportunities and Threats is detailed as follows:

2.1. **Strengths:**

- Fancy bird Business requires comparatively low capital requirement.
- Fancy birds business is less labor intensive
- The profit margin is high.

2.2. **Weaknesses:**

- During the hatching season intensive care is required.
- The birds are delicate & sensitive to environment and there is always possibility of damage.
- Complexity associated with rising as per natural habitat.

2.3. **Opportunities:**

- Proper management under the supervision of professional will lead to higher efficiency in terms of desirable & profits.
- High demand within and outside the country.

- Canary birds with quality breeds can fetch high price.

2.4. Threats:

- Diseases may highly harm the canary birds.
- Saturated markets

7 GEOGRAPHICAL POTENTIAL FOR INVESTMENT

The project will attract huge potential from the developed cities of Pakistan as Lahore, Quetta, Karachi and Peshawar etc. As raising Canary birds is an enjoyable hobby by many people across Pakistan

8 POTENTIAL TARGET CUSTOMERS / MARKETS

The primary target market for the proposed project would be household customers with a hobby of bird keeping, breeder farm, retail stores and fulfilling the demands of national ventures around the Country.

9 PROJECT COST SUMMARY

9.1 Project Economics

All the figures in this financial model have been calculated for estimated sales of Rs. 2,569,500/- in the year one. The capacity utilization during year one is worked out at 80% with 2% increase in subsequent years up to the maximum capacity utilization of 95%.

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)	41%
Payback Period (yrs.)	3.23
Net Present Value (Rs.)	3,867,648

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. 1,084,715
Bank Loan (50%)	Rs.1,084,715
Markup to the Borrower (13% / annum)	13%
Tenure of the Loan (Years)	10

9.3 Project Cost

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

Table 3: Project Cost

Description	Amount Rs.
Capital Cost	
Building/Infrastructure	300,000
Furniture & fixtures	110,000
Breeding Birds	600,000
Office equipment	425,000
Pre-operating Cost	314,121
Total Capital Cost	1,749,121
Working Capital	
Raw Material Inventory	193,375
Equipment spare part inventory	1,934
Cash	150,000
Upfront land lease rental	75,000
Total Working Capital	420,309
Total Project Cost	2,169,429

9.4 Space Requirement

The space requirement for the proposed Aviary of Canary Bird is estimated considering various facilities including management office, production hall, storage etc. Details of space requirement and cost related to land & building is given below;

Table 4: Space Requirement

Description	Estimated Area (Sqft)	Unit Cost (Rs.)	Total Cost (Rs.)
Management Office renovation	250	100	25,000
Store renovation (for Feed etc)	1000	100	100,000
Area for Cages renovation	1750	100	175,000
Total	3000		300,000

9.5 Breeding Birds & Equipment

Table 5: Breeding Birds & Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Breeding Birds (Canary)	100	6,000	600,000
Cages with Accessories	150	2,500	375,000
Total			975,000

9.6 Furniture & Fixtures Requirement

Details of the furniture and fixture required for the project are given below;

Table 6: Furniture & Fixture

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Table & Chairs	Lump Sum		30,000
Electric lights, fans & wiring	Lump Sum		80,000
Total			110,000

9.7 Office Equipment Requirement

Following office equipment will be required for Aviary of Fancy Bird (Canary).

Table 7: Office Equipment

Description	Quantity	Unit Cost (Rs.)	Total Cost (Rs.)
Laptop	1	50,000	50,000
Total			50,000

9.8 Human Resource Requirement

In order to run operations of **Aviary of Fancy Bird** smoothly, details of human resources required along with number of employees and monthly salary are recommended as under;

Table 8: Human Resource Requirement

Description	No. of Employees	Monthly Salary (Rs.)
CEO	1	40,000
Care Taker	1	18,000
Security Guard	1	18,000
Total		76,000

9.9 Utilities and other costs

An essential cost to be borne by the project is the cost of electricity and gas. The electricity expenses are estimated to be around Rs. 4,720 per month, whereas, gas expenses are estimated to be Rs. 3,808 per month. Furthermore, promotional expense being essential for marketing of aviary of canary fancy bird is estimated as 1 % of revenue.

9.10 Revenue Generation

Based on the capacity utilization of 80% for Canary birds respectively, sales revenue during the first year of operations is estimated as under;

Table 9: Revenue Generation – Year 1

Description	No. of off springs	Sale Price / Bird (Rs.)	Sales Revenue (Rs.)
Birds (Canary)	464	4,500	2,088,000
Total			2,088,000

10 CONTACT DETAILS

In order to facilitate potential investors, contact details of private sector Service Providers relevant to the proposed project be given.

10.1 Breeding Birds & Feed Suppliers

Name of Supplier	Address	Phone	E-mail
Tahir & Abdul Rashid Partners	Barlas Incubators, Hatchery & Farms Karachi-75300	03332130589	rashidbarlas@yahoo.com
Mr. Noor Ahmed	Jail Road, Quetta	03003876761	

10.2 Technical Experts / Consultants

Name of Expert/Organization	Address	Phone	E-mail
Dr. Nisar Ahmed/ Livestock Department	Main Road, Mastung	03013727959	wr2only@yahoo.com
Mr. Maqsood Ahmed, Private Fancy Birds Farmer	Alamdar Road, Quetta	0337801547	

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 Balochistan	www.balochistan.gov.pk
Government of Gilgit Baltistan	www.gilgitbaltistan.gov.pk
Government of Azad Jamu Kashmir	www.ajk.gov.pk
Trade Development Authority of Pakistan (TDAP)	www.tdap.gov.pk
State Bank of Pakistan (SBP)	www.sbp.org.pk
Livestock & Dairy Development Department, Government of Punjab.	www.livestockpunjab.gov.pk
Forest and Wildlife Department Government Of Balochistan	www.balochistan.gov.pk

12 ANNEXURES

12.1 Income Statement

Statement Summaries										SMEDA
Income Statement										
	Rs. in actuals									
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	2,088,450	2,493,315	2,938,667	3,448,155	4,030,155	4,694,073	5,450,473	5,998,151	6,597,966	7,257,763
Cost of goods sold	974,729	1,093,291	1,215,338	1,349,512	1,497,003	1,659,116	1,837,290	1,995,491	2,167,161	2,354,445
Gross Profit	1,113,721	1,400,024	1,723,328	2,098,643	2,533,152	3,034,957	3,613,183	4,002,660	4,430,806	4,903,318
<i>General administration & selling expenses</i>										
Administration expense	148,320	162,761	178,607	195,997	215,079	236,020	258,999	284,215	311,887	342,253
Rental expense	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Utilities expense	-	-	-	-	-	-	-	-	-	-
Travelling & Comm. expense (phone, fax, etc.)	2,880	3,160	3,468	3,806	4,176	4,583	5,029	5,519	6,056	6,646
Office vehicles running expense	-	-	-	-	-	-	-	-	-	-
Office expenses (stationary, etc.)	1,440	1,580	1,734	1,903	2,088	2,291	2,515	2,759	3,028	3,323
Promotional expense	20,885	24,933	29,387	34,482	40,302	46,941	54,505	59,982	65,980	72,578
Insurance expense	-	-	-	-	-	-	-	-	-	-
Professional fees (legal, audit, etc.)	10,442	12,467	14,693	17,241	20,151	23,470	27,252	29,991	32,990	36,289
Depreciation expense	128,500	128,500	128,500	128,500	128,500	128,500	128,500	128,500	128,500	128,500
Amortization expense	62,824	62,824	62,824	62,824	62,824	62,824	62,824	62,824	62,824	62,824
Property tax expense	-	-	-	-	-	-	-	-	-	-
Miscellaneous expense	62,654	74,799	88,160	103,445	120,905	140,822	163,514	179,945	197,939	217,733
Subtotal	512,944	546,025	582,374	623,196	669,025	734,204	791,891	842,487	897,956	958,897
Operating Income	600,777	853,999	1,140,955	1,475,446	1,864,127	2,300,753	2,821,292	3,160,173	3,532,849	3,944,421
Other income	21,812	36,833	54,131	73,319	108,201	211,228	380,584	578,353	809,192	1,119,366
Gain / (loss) on sale of assets	-	-	-	-	240,000	-	-	-	-	-
Earnings Before Interest & Taxes	622,589	890,832	1,195,086	1,548,765	2,212,328	2,511,980	3,201,876	3,738,526	4,342,041	5,063,787
Interest expense	128,783	107,521	100,546	92,664	83,758	73,694	62,322	49,472	34,951	18,542
Earnings Before Tax	493,805	783,312	1,094,540	1,456,101	2,128,570	2,438,286	3,139,554	3,689,054	4,307,090	5,045,245
Tax	202,460	321,158	448,761	597,001	872,714	999,697	1,287,217	1,512,512	1,765,907	2,068,550
NET PROFIT/(LOSS) AFTER TAX	291,345	462,154	645,779	859,100	1,255,856	1,438,589	1,852,337	2,176,542	2,541,183	2,976,695
Balance brought forward		291,345	376,750	511,264	685,182	1,941,038	3,379,627	5,231,964	7,408,505	9,949,689
Total profit available for appropriation	291,345	753,499	1,022,528	1,370,364	1,941,038	3,379,627	5,231,964	7,408,505	9,949,689	12,926,383
Dividend	-	376,750	511,264	685,182	-	-	-	-	-	-
Balance carried forward	291,345	376,750	511,264	685,182	1,941,038	3,379,627	5,231,964	7,408,505	9,949,689	12,926,383

12.2 Balance Sheet

Statement Summaries											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
	Rs. in actuals										
Assets											
<i>Current assets</i>											
Cash & Bank	150,000	286,242	450,419	632,202	834,177	1,329,838	2,894,715	4,716,966	6,850,087	9,333,751	13,053,575
Accounts receivable	-	171,653	188,292	223,232	262,472	307,328	358,530	416,899	470,491	517,649	569,414
Finished goods inventory	-	8,191	9,116	10,133	11,252	12,481	13,832	15,317	16,629	18,060	19,620
Equipment spare part inventory	1,934	2,314	2,733	3,215	3,766	4,396	5,116	5,643	6,221	6,859	-
Raw material inventory	193,375	231,387	273,337	321,455	376,566	439,598	511,595	564,281	622,119	685,886	-
Pre-paid annual land lease	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	-
Pre-paid building rent	-	-	-	-	-	-	-	-	-	-	-
Pre-paid lease interest	-	-	-	-	-	-	-	-	-	-	-
Pre-paid insurance	-	-	-	-	-	-	-	-	-	-	-
Total Current Assets	420,309	774,788	998,898	1,265,237	1,563,233	2,168,641	3,858,788	5,794,106	8,040,548	10,637,205	13,642,609
<i>Fixed assets</i>											
Land	-	-	-	-	-	-	-	-	-	-	-
Building/Infrastructure	300,000	285,000	270,000	255,000	240,000	225,000	210,000	195,000	180,000	165,000	150,000
Mother Birds	600,000	540,000	480,000	420,000	360,000	1,065,769	929,192	792,615	656,038	519,461	382,884
Furniture & fixtures	110,000	99,000	88,000	77,000	66,000	55,000	44,000	33,000	22,000	11,000	-
Office vehicles	-	-	-	-	-	-	-	-	-	-	-
Office equipment	425,000	382,500	340,000	297,500	255,000	212,500	170,000	127,500	85,000	42,500	-
Total Fixed Assets	1,435,000	1,306,500	1,178,000	1,049,500	921,000	1,558,269	1,353,192	1,148,115	943,038	737,961	532,884
<i>Intangible assets</i>											
Pre-operation costs	314,121	251,296	188,472	125,648	62,824	-	-	-	-	-	-
Legal, licensing, & training costs	-	-	-	-	-	-	-	-	-	-	-
Total Intangible Assets	314,121	251,296	188,472	125,648	62,824	-	-	-	-	-	-
TOTAL ASSETS	2,169,429	2,332,584	2,365,370	2,440,386	2,547,057	3,726,910	5,211,980	6,942,221	8,983,586	11,375,166	14,175,494
Liabilities & Shareholders' Equity											
<i>Current liabilities</i>											
Accounts payable	-	6,444	7,477	8,605	9,866	11,277	12,853	14,208	15,331	16,550	7,413
Export re-finance facility	-	-	-	-	-	-	-	-	-	-	-
Short term debt	-	-	-	-	-	-	-	-	-	-	-
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Total Current Liabilities	-	6,444	7,477	8,605	9,866	11,277	12,853	14,208	15,331	16,550	7,413
<i>Other liabilities</i>											
Lease payable	-	-	-	-	-	-	-	-	-	-	-
Deferred tax	-	123,000	123,000	123,000	123,000	123,000	255,383	230,783	206,183	181,583	156,983
Long term debt	1,084,715	827,081	773,429	712,802	644,294	566,880	479,402	380,552	268,852	142,630	-
Total Long Term Liabilities	1,084,715	950,081	896,429	835,802	767,294	689,880	734,785	611,335	475,035	324,213	156,983
<i>Shareholders' equity</i>											
Paid-up capital	1,084,715	1,084,715	1,084,715	1,084,715	1,084,715	1,084,715	1,084,715	1,084,715	1,084,715	1,084,715	1,084,715
Retained earnings	-	291,345	376,750	511,264	685,182	1,941,038	3,379,627	5,231,964	7,408,505	9,949,689	12,926,383
Total Equity	1,084,715	1,376,060	1,461,464	1,595,979	1,769,896	3,025,753	4,464,341	6,316,678	8,493,220	11,034,403	14,011,098
TOTAL CAPITAL AND LIABILITY	2,169,429	2,332,584	2,365,370	2,440,386	2,547,057	3,726,910	5,211,980	6,942,221	8,983,586	11,375,166	14,175,494
<i>Note: Total assets value will differ from project cost due to first installment of leases paid at the start of year 0</i>											
							(0)	0	(0)	0	(0)

12.3 Cash Flow Statement

Statement Summaries											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	-	291,345	462,154	645,779	859,100	1,255,856	1,438,589	1,852,337	2,176,542	2,541,183	2,976,695
Add: depreciation expense	-	128,500	128,500	128,500	128,500	128,500	205,077	205,077	205,077	205,077	205,077
amortization expense	-	62,824	62,824	62,824	62,824	62,824	-	-	-	-	-
Deferred income tax	-	123,000	-	-	-	-	132,383	(24,600)	(24,600)	(24,600)	(24,600)
Accounts receivable	-	(171,653)	(16,638)	(34,940)	(39,240)	(44,856)	(51,202)	(58,369)	(53,592)	(47,157)	(51,765)
Finished good inventory	-	(8,191)	(925)	(1,017)	(1,118)	(1,229)	(1,351)	(1,485)	(1,312)	(1,431)	(1,561)
Equipment inventory	(1,934)	(380)	(419)	(481)	(551)	(630)	(720)	(527)	(578)	(638)	6,859
Raw material inventory	(193,375)	(38,012)	(41,950)	(48,118)	(55,111)	(63,031)	(71,997)	(52,686)	(57,839)	(63,767)	685,886
Pre-paid building rent	-	-	-	-	-	-	-	-	-	-	-
Pre-paid lease interest	-	-	-	-	-	-	-	-	-	-	-
Advance insurance premium	-	-	-	-	-	-	-	-	-	-	-
Accounts payable	-	6,444	1,033	1,128	1,261	1,411	1,577	1,355	1,123	1,218	(9,137)
Other liabilities	-	-	-	-	-	-	-	-	-	-	-
Cash provided by operations	(193,309)	393,876	594,578	753,673	955,665	1,338,844	1,652,355	1,921,101	2,244,821	2,609,886	3,787,455
<i>Financing activities</i>											
Change in long term debt	1,084,715	(257,634)	(53,652)	(60,627)	(68,508)	(77,414)	(87,478)	(98,850)	(111,701)	(126,222)	(142,630)
Change in short term debt	-	-	-	-	-	-	-	-	-	-	-
Change in export re-finance facility	-	-	-	-	-	-	-	-	-	-	-
Add: land lease expense	-	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Land lease payment	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)	-
Change in lease financing	-	-	-	-	-	-	-	-	-	-	-
Issuance of shares	1,084,715	-	-	-	-	-	-	-	-	-	-
Purchase of (treasury) shares	-	-	-	-	-	-	-	-	-	-	-
Cash provided by / (used for) financ	2,094,429	(257,634)	(53,652)	(60,627)	(68,508)	(77,414)	(87,478)	(98,850)	(111,701)	(126,222)	(67,630)
<i>Investing activities</i>											
Capital expenditure	(1,749,121)	-	-	-	-	(765,769)	-	-	-	-	-
Acquisitions	-	-	-	-	-	-	-	-	-	-	-
Cash (used for) / provided by invest	(1,749,121)	-	-	-	-	(765,769)	-	-	-	-	-
NET CASH	150,000	136,242	540,926	693,047	887,157	495,661	1,564,877	1,822,251	2,133,120	2,483,664	3,719,824
Cash balance brought forward	-	150,000	286,242	450,419	632,202	834,177	1,329,838	2,894,715	4,716,966	6,850,087	9,333,751
Cash available for appropriation	150,000	286,242	827,169	1,143,466	1,519,359	1,329,838	2,894,715	4,716,966	6,850,087	9,333,751	13,053,575
Dividend	-	-	376,750	511,264	685,182	-	-	-	-	-	-
Cash carried forward	150,000	286,242	450,419	632,202	834,177	1,329,838	2,894,715	4,716,966	6,850,087	9,333,751	13,053,575

13 KEY ASSUMPTIONS

13.1 Operating Cost Assumptions

Description	Details
Sales Price Growth Rate	10 % per year
Capacity Utilization Growth Rate	5 % per year
Increase in Cost of Raw Materials	5 % per year
Increase in Staff Salaries	10 % per year
Increase in Utilities (Electricity / Water / Gas)	10 % per year

13.2 Production Cost Assumptions

Description	Details
Installed Capacity (Pairs of Birds)	50
Production Cycle (Days)	45
Annual Installed Production Capacity	720
Initial Capacity (%)	65
Initial Capacity per year (Birds)	464
Maximum Capacity %	95
Feeding Months	6
Purchase price of mother birds	6,000

13.3 Revenue Assumptions

Description	Details
Per unit cost	4,500
Total unit sales	464
Total revenue	2,088,000

13.4 Financial Assumptions

Description	Details
Borrower Interest rate	13
Bank interest rate	10