
DETAILED PROJECT REPORT ON ESTABLISHMENT OF BROILER REARING FARM

SAMPLE

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Abbreviations

CY – Calendar Year

DOC – Day Old Chick

DSCR – Debt Service Coverage Ratio

IRR – Internal Rate of Return

LS – Lump Sum

MT- Metric Tonnes

SHG – Self Help Group

Sq. Ft. – Square Feet

SWOT – Strength Weakness Opportunities Threat

1. Introduction:

Broiler meat has become an important part of the food basket of Indian population. It is an important source of high quality proteins, minerals and vitamins to balance the human diet. Broiler farming is a profitable enterprise because of the quick growth of the birds and high feed conversion efficiency. It generates quick revenue to the entrepreneur as the business cycle is only 5-6 weeks. India has 1.23 billion people and the number is growing every year. The focus is on “Development”, meaning good food, better health & living conditions for everyone. People spend more money on food when they earn more. Healthy food at attractive price will therefore be the issue in focus. Eggs and chicken are accepted by almost all communities and is available across the country at reasonable prices. Poultry is the most organised sector in animal agriculture in India, worth Euro 14,500 million for CY 2016, broiler production is estimated at 4.2 million tons, up by approximately eight percent from last year. Broiler farming can be a subsidiary as well as main source of income and provide employment throughout the year. Poultry manure is of high fertilizer value which can be used for increasing yield of all crops.

Broiler farming has the following advantages:

- a) Low initial investment
- b) About 30-40 days of rearing period
- c) High feed conversion efficiency as compared to other animals
- d) Quicker realization of returns from investments
- e) Higher demand for poultry meat because of growth in population, hospitality, tourism industry and lower price as compared to sheep and goat meat.

f) Management is in-house and easier as compared to other livestock animals.

2. The Project & Proposal

2.1 The Project

The present proposal is for establishment of a 25,000 capacity broiler poultry farm. Day old chicks will be reared in five sheds each having 5000 birds capacity. Each shed will have a floor area of 5000 square feet. The sheds will have corrugated roof, concrete floor and half brick wall and half caged. The birds will be reared in deep litter system (all in-all out). The sheds will be 10 feet apart from each other to have proper ventilation. The birds will be reared for 30 to 35 days in the sheds. They will be vaccinated at prescribed intervals and provided with medicines as per standard practices. After each growing / rearing cycle the litter material will be removed and cleaning will be done. After cleaning, lime and other sanitation materials will be applied and shed will be kept vacant for a week before beginning of the next cycle. This will ensure healthy management of the subsequent batches. Therefore, each cycle is of 35 days rearing period and a week of vacant period for cleaning of sheds. Total of 8 cycles/ batches of birds per year can be reared in the system in each shed. The total annual production is estimated to be 2 lakh birds. Average weight of a bird at the age of marketing will be around 1.2 kg.

The raw materials/inputs required for the project are day old chicks, poultry feed, medicine & vaccine, equipments like brooder, hoover, feeder, waterer are locally available in the area. The Society has already established contacts with the suppliers for day old chicks (vancobb breed), feed, medicine, equipments, tools etc. The suppliers will provide 3% chicks over and above the purchased chicks to cover the mortality during transportation. As the proposed project is located near the city, there are good number of suppliers available in the nearby area. The Society intends to employ a registered veterinary practitioner on part time basis for providing services to the farm.

Electricity is to be available at the project site. A tube well with motor pump and over-head tank will be set up in the project location for adequate good quality supply of water. Labour is available in the village and nearby areas.

The estimated cost for the project is Rs.155.00 Lakh, out of which 15% i.e. Rs. 23.25 Lakh will be the raised by the Society as own contribution and the rest 85% will be i.e. Rs. 131.75 Lakh will be raised from NCDc under the CSISAC Scheme.

2.2 Proposed Investment

The project is proposed to be established at ABC village, near Hyderabad city in the Telanagana State. The Society has recently acquired 2.5 acres land in ABC Village suitably located near road, well connected to the market available in Hyderabad. This ensures both easy accesses to inputs as well as marketing of the broiler birds. Electricity is available at the farm site. A tube well with electric motor pump will be set up in this land to fulfill water requirements for the proposed poultry farm.

The total project cost is estimated at Rs. 155.00 Lakh. Cost estimates have been made by reputed authorized Consultant who has 10 years of experience in the field. a detailed break-up of the project cost is presented below.

Table1: Project Cost

(Amount Rs. In Lakh)

SI. No.	Particulars	Quantity	Unit	Total Cost
1	Land development			2.00
2	Broiler Rearing Shed @ 1sqft per bird	25000	sq.ft.	125.00
3	Overhead Tank (5000 Litre)			2.00
4	Water Supply, Sanitary Fittings including water pump etc.			0.70
5	Electrification	LS		0.50
6	DG Set	1	no.	0.30
7	Tools & equipments (Waterer, feeder, brooder, hoover etc.)	LS		3.75
8	Store Room, Office including furniture & Fixture			5.00
9	Margin Money			11.69
10	Contingencies	3%		4.06
	Total			155.00

3. Vision, Mission, Goals & Objectives

Vision

To provide best quality broiler meat at best price to the people in the State.

Mission

To become a preferred broiler poultry supplier in the State while providing quality broiler meat in the area on a sustainable basis.

Goals & Objectives:

- i. To generate additional revenue for the Cooperative Society
- ii. To generate employment in the locality
- iii. To meet the growing demand for Broilers in the nearby area
- iv. To provide assured quality meat to the consumers at a competitive price.

4. Feasibility Assessment

4.1 Technical Feasibility

- The State has poultry chicks in abundant supply.
- The demand in and the area for broiler poultry meat is high.
- The technology involved in broiler poultry farming is not highly specialized and manageable with trained personnel and unskilled labourers.

4.2 Commercial feasibility

- The day old chicks for the broiler poultry farm will be procured from suppliers and hatcheries in nearby areas
- The equipments, tools, feed, litter material etc. will be procured from suppliers
- The local engineers and contractors will be hired for the civil works, sanitation and plumbing.

- Local youths and women labourers will be engaged after providing hands-on training at the existing farm.
- Local transportation services will be used for transportation of materials
-

4.3 Organisational Feasibility

- The Society has been in the business of poultry farming for last five years
- There exists a ready market in the City and the nearby area because of the boom in restaurant industry, therefore marketing of the broiler birds would not pose a problem.
- The Society is in contact with input suppliers as well as restaurants and hotels in the area.
- The manpower will be involved after providing training.
- The Farm will be managed by existing managers of the Society who are well experienced in the trade.

4.4 Financial Feasibility

- The project yields sufficient revenue to cover the debts as well as imputed value of the costs which is evident from the financial analysis detailed below. The Avg. DSCR is 2.31 and IRR above 35 %.
- The Society can avail financial assistance from NCDC along with subsidy of 20% which reduces the debt burden on the project.
- The assumptions on costs and revenues are close to reality.
- The IRR is above 35% which indicates that the project can withstand some downwards financial shocks.

4.5. Economic Feasibility

The project would lead to development in the area in general due to generation of income and employment opportunities while meeting the nutritional requirements apart from development of the Cooperative Society in particular due to improved members' participation, involvement and higher profits leading to the economic upliftment of the members.

5. Business Model:

5.1 Key Partners

- Members of the Society and the Board of management
- Suppliers of chicks, feed, tools & equipments, medicines, litter material, electricity supplier, fuel supplier
- Service providers like transporters, veterinary practitioner, labourers
- Buyers – wholesale & retailers, hotels & restaurants, buyers of gunney bags, local consumers
- Contractors, civil engineers, consultant
- Financial partner i.e. Financial Institution.

5.2 Key Activities

- Capacity building and skill development
- Procurement of day old chicks, feed, litter material, tools & equipments
- Transportation, rearing of birds, management operations
- Monitoring and supervision of the project during implementation and post implementation, Maintenance
- Transportation and Marketing of poultry birds
- Maintaining relations with suppliers, buyers and local authorities

5.3 Key Resources

- Rearing shed, feed, water, medicine, Electricity, labourers, veterinary service provider, manager
- Office cum storage facility, retail shop
- Buyers and sellers, contractors
- Financial assistance from Financial Institution with subsidy and own funds.

5.4 Value proposition

- 100% hygienically reared poultry birds
- Use of good quality feed materials for healthy chicks

- Production of good quality poultry birds for good quality meat
- Round the year even supply of poultry birds
- Use of cost effective and scientific method of rearing
- Supply of poultry meat at lower market rate due to better management and location advantage of the farm
- Capacity building of the personnel engaged in the trade will reduce risks of un-hygienically produced meat.

5.5 Customer Relationship

- Maintaining customer relations with the buyers i.e. households in the local area, members and hotels & restaurants is the key to the project
- Established contacts in the industry for supply of raw materials and buyers of marketable products will be maintained by way of signing contracts and agreements.

5.6 Channels

- Marketing of poultry meat will be done directly to the consumers through retail shop at the farm and the Society as well as the retailers of poultry birds and restaurants & hotels in the City
- Logistics involved is the transportation of birds to the city
- The Society will make timely delivery of advance orders
- Procurement of raw materials will be done through wholesalers

5.7 Customer Segments

- Bulk buyers will be retailers, hotels & restaurants industries
- Local consumers
- Members of the Society
- Feed industry for gunny bags
- Agricultural farmers for manures and manure industry

5.8 Revenue streams

- Consumers need timely supply of good quality poultry meat at a competitive price
- Primary Revenue will be earned from sale of poultry birds by ensuring supply throughout the year as the rearing will be in batches
- Secondary revenue will be earned through sale of poultry manure and gunny bags
- After gaining trust from the bulk purchasers the Society can get advance payments which can be used to supplement working capital loan from banks and thereby reduce interest burden on the Society.
- After running the Project for 8 years and repayment of the term loan the Society will own the project facility and revenue earned will be capitalized to provide more dividend to the members thereby attracting more members to join the cooperative and earning better member satisfaction.

5.8 Cost Structure

- Most important cost is the infrastructure, civil works
- Most expensive resources are the day old chicks and feed
- Most important activity is rearing of birds

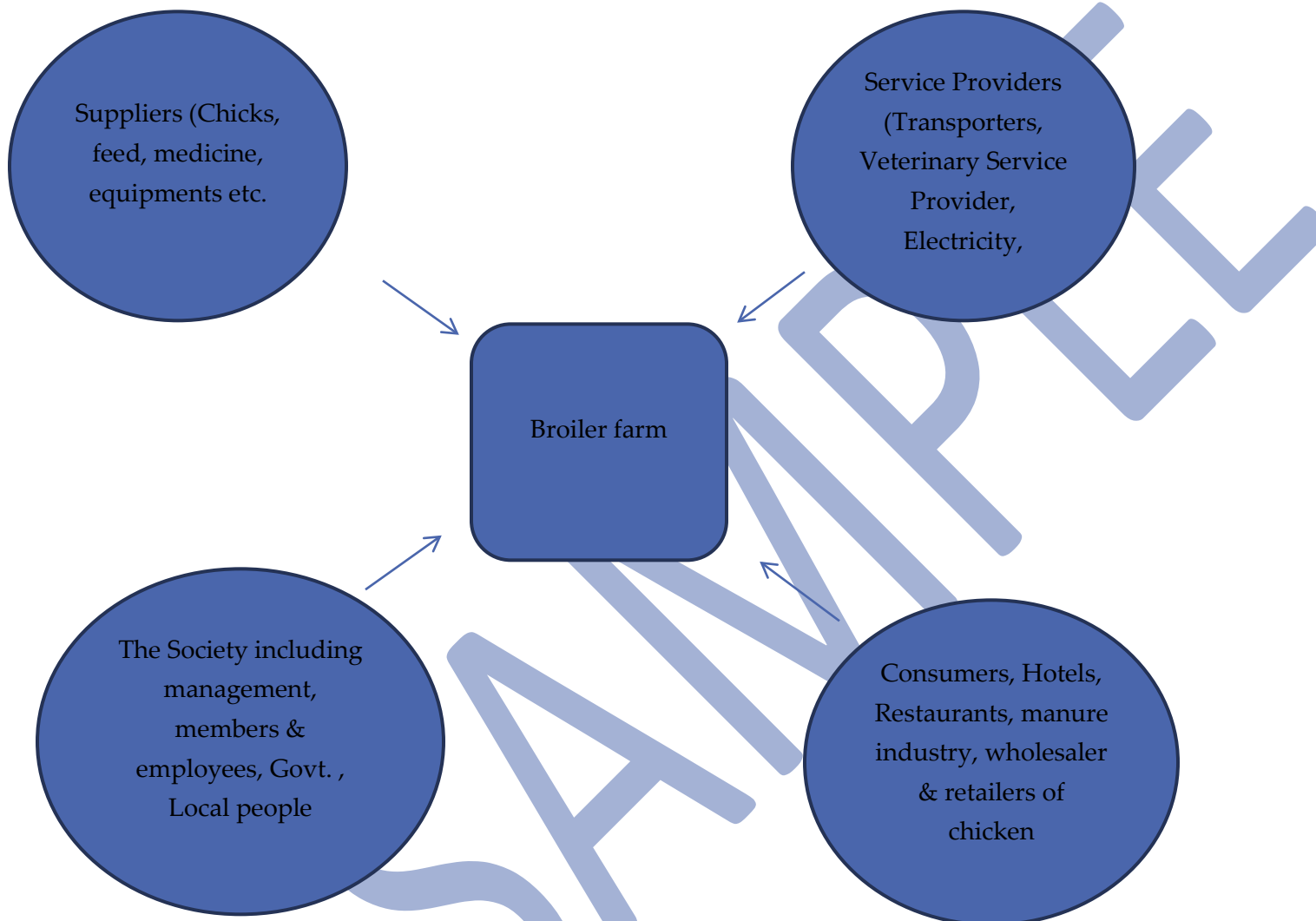


Fig.1: Business model for the Project of 25000 capacity Broiler rearing Farm

6. SWOT Analysis

6.1 Strength

- Experience in the poultry farming
- Contacts with the suppliers as well as buyers
- There is growing demand for good quality poultry meat in the hotel and restaurant industry due to higher tourist foot falls in the City
- There is growing demand in the locality due to increase in population and higher purchasing power
- Training of personnel for operations
- Availability of resources such as litter material, labourers, water, electricity are available
- Good relations with the customers

6.2 Weakness

- It might take sometime to attract big time customers
- Outsource of the services of veterinary, electricity, transportation.
- Production capacity of the Society is such as not to make a major influence to the industry.

6.3 Opportunities

- There is growing demand for good quality poultry meat in the area as well as the City due to opening of new restaurants, hotels and fast food joints.
- The population in the locality is increasing while the increase in purchasing power of the population is substantial
- Non Vegetarian population in the locality
- There is a huge gap between the supply and demand of poultry meat.
- Prices of poultry meat are more or less stable in the area if not increasing.

6.4 Threats

- Diseases of poultry birds and their rapid spread leading to death of birds is a threat to the industry
- Natural calamities and disasters pose a threat that is not under human control
- Govt. policies towards poultry industry and arrival of rival firms in the area may pose a threat to the proposed farm.

7. Risk Assessment and Risk Management

Four major risks have been identified for the project. These are production risks, market risks, managerial risks and resources risks. A brief analysis of the risks and strategies identified for their management are presented below.

7.1 Production Risks and Their Management:

- Poultry birds are prone to diseases and pose as a risk in the poultry industry.

To manage production risks, the sheds have been kept 10 feet apart from each other so that if birds in one shed are affected by disease it does not spread rapidly to other birds. Further, the birds will be regularly monitored for any early indication of diseases. They will be vaccinated against viral diseases as per standard prescribed practices and will be provided antibiotics. Further, if some birds are found to be affected they will be immediately separated from the flock, examined by veterinary practitioner and culled, if necessary.

7.2 Market Risks and Their Management:

- The involvement of middle men and assured buyers/demand for the poultry birds throughout the year pose a market risk.
- The prices of the poultry birds also vary whenever there is a glut in the market

7.3 Managerial Risks and Their Management:

- Poultry business will suffer if appropriate production technology and scientific rearing techniques are not adopted. Management of the farm, monitoring of birds growth and health are crucial for successful poultry farm.

To overcome this risk training of the labourers in the existing farm and engage trained manpower in the farm for better operational management. Further, the Society has five years experience in poultry farming. It has been successfully managing its existing broiler rearing farm. 5000 birds are reared in the similar fashion in the existing farm. The proposed farm will be managed by the existing manager and staff.

7.4 Resources Risks and Their Management:

- The resources required for the establishment of poultry farm and their effective and efficient management is key to success of the farm.
- The major resources required are the day old chicks, feed, tools & implements, litter material etc. which may pose a risk if not available at right quantities at right time and right prices.

To address these risks the following strategies have been identified.

The day old chicks will be procured from reputed wholesalers/ distributors. As per standard practices the sellers of day old chicks will provide 3% extra chicks to take care of the mortality during transportation. The Society has established contacts with providers of litter material, feed, equipment supplier, medicine supplier, transport service providers which would ensure timely procurement of raw materials. Electricity is available at the project site and the electricity corporation has agreed to provide commercial connection for the farm. Labour is available locally. They will be trained for best practices in poultry farm before engagement.

8 Plan Implementation, Monitoring and Evaluation:

The birds will be reared in deep litter system (all in-all out). The sheds will be 10 feet apart from each other to have proper ventilation. The birds will be reared for 30 to 35 days in the sheds. They will be vaccinated at prescribed intervals and provided with medicines as per standard practices. After each growing / rearing cycle the litter material will be removed and cleaning will be done. After cleaning, lime and other sanitation materials will be applied and shed will be kept vacant for a week before beginning of the next cycle. This will ensure healthy management of the subsequent batches.

Table 3: Implementation Schedule of the Project

Sl. No.	Particulars	Commencement (Month and year)	Completion (Month & year)
1	Land Acquisition	Owned	
2	Land Development	15 days	30 June 2018
3	Building of Sheds	1 month	31 st July 2018
4	Water and Sanitation	1 month	31 st July 2018
5	Electricity	10 days	10 th August 2018
6	Procurement of feed, medicine, equipments etc.	5 days	15 th August 2018
7	Procurement of day old chicks (First Batch)	1 day	16 th August
8	Rearing	First batch to be marketed by 1 month	

9. Financials:

The viability of the project has been worked out. The details of the assumptions, and viability analysis are presented in annexure. The project yields Average **DSCR of 2.31 and the IRR 35%**. Therefore, the project is financially viable. Major financial indicators and parameters of the Financial analysis are presented below. The detailed analysis are presented in Annexure.

Table 4: Major Financial Parameters of the Proposed Project

(Rs. In Lakh)

Sl. No.	Particulars		Year-1	Year -2	Year-3	Year-4	Year-5	Year-6	Year-7	Year-8
1	Total Income		257.09	257.09	257.09	257.09	257.09	257.09	257.09	257.09
2	Total Expenditure		223.84	222.30	219.38	216.61	213.97	211.44	209.03	206.70
3	Profit before tax		33.25	34.79	37.71	40.49	43.12	45.65	48.06	50.39
4	Income tax @33%		10.97	11.48	12.45	13.36	14.23	15.06	15.86	16.63
5	Profit After tax, Interest & Dep.		22.28	23.31	25.27	27.13	28.89	30.58	32.20	33.76
6	Loan Repayment		0.00	14.39	14.39	14.39	14.39	14.39	14.39	14.39
7	Salvage Value									58.69
8	Cashflow for IRR	(-)155	58.58	58.58	58.58	58.58	58.58	58.58	58.58	117.28
9	IRR		0.36							
10	DSCR		4.36	1.86	1.94	2.04	2.15	2.28	2.44	2.63
11	Average DSCR		2.31							

10. Conclusion:

The present proposal for rearing of 25,000 broiler poultry birds is technically feasible and financially viable. The return from investment in terms of IRR is above 30% and hence poses as a good investment opportunity. The Society has experience in handling and managing such projects successfully which further ensures the success of the project. The project is, therefore, recommended for investment and implementation.

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Assumptions

Particulars	Unit	Quantity/ Amount
Rearing Capacity	No. of Birds/Cycle	25,000
No. of days of rearing	Days	30
Mortality during rearing	percentage	4%
Average Cost of DOC	Rs. per DOC	30.00
Feed Conversion Ratio	Feed : Weight of Bird	2:1
Feed consumption	kg/Bird	2.40
Cost of feed	Rs. per kg	25.00
Medicines & Vaccination	Rs. per Bird	2.50
Litter material	Rs. per Bird	2.00
Wages	Rs. per Bird	2.00
Energy Charges (Fuel + Electricity)	Rs. per Bird	1.00
Weight of Broiler at marketing	kg/Bird	1.2
Average Sale Price of Broiler	Rs. per kg	110
Sale Price of Feed Bags	Rs. per bag	10
Manure produced	MT/Cycle	2
Sale Price of manure	Rs. per MT	500
Insurance per bird	Rs. Per bird	0.50
Insurance of shed and equipments	Percentage	0.50%
Depreciation	% of Infrastructure Cost	10%
Loan from NCDC	% of Project Cost	65%
Subsidy from NCDC	% of Project Cost	20%
Rate of Interest (on Loan) for weaker section programme		10.85%
Repayment Period in years (including 1 year moratorium)		8
Interest rate on Working Capital	Per Annum	10%

Annexure – II

Repayment Schedule for Term Loan

(Amount Rs. In lakh)

Year	Loan Outstanding	Principal	Interest	Total Installment
1	100.75	0.00	10.93	10.93
2	100.75	14.39	10.93	25.32
3	86.36	14.39	9.37	23.76
4	71.96	14.39	7.81	22.20
5	57.57	14.39	6.25	20.64
6	43.18	14.39	4.68	19.08
7	28.79	14.39	3.12	17.52
8	14.39	14.39	1.56	15.95

Depreciation Schedule for Broiler Unit

Year	Building		Machinery & Equipments		Total Depreciation	Value at the end of the year
	Value at the beginning of the year	10%	Value at the beginning of the year	20%		
1	134.50	13.45	4.75	0.95	14.40	124.85
2	121.05	12.11	3.80	0.76	12.87	111.99
3	108.95	10.89	3.04	0.61	11.50	100.48
4	98.05	9.81	2.43	0.49	10.29	90.19
5	88.25	8.82	1.95	0.39	9.21	80.98
6	79.42	7.94	1.56	0.31	8.25	72.72
7	71.48	7.15	1.25	0.25	7.40	65.33
8	64.33	6.43	1.00	0.20	6.63	58.69
Total Salvage value	58.69					

Annexure – IV

Cash Flow Analysis

1	Capacity	25,000	birds							
2	No. of Cycles	8	per year							
3	Total Production	200,000	birds							
4	Production after Mortality	194,000	birds							
5	Sale Quantity	232,800	kg							
A	Income	Yr-0	Yr-1	Yr-2	Yr-3	Yr-4	Yr-5	Yr-6	Yr-7	Yr-8
i.	By Sale of Birds		256.08	256.08	256.08	256.08	256.08	256.08	256.08	256.08
ii.	By Sale Empty Feed Bags		0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
iii.	By Sale of Manure		0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
	Total Income		257.09	257.09	257.09	257.09	257.09	257.09	257.09	257.09
B	Expenditure									
i.	Cost of DOC		60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
ii.	Cost of Feed		120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
iii.	Cost of Medicines & Vaccination		5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
iv.	Cost of Electricity & Water		2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
v.	Cost of Litter material		4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
vi.	Wages		4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
vii.	Depreciation		14.40	12.87	11.50	10.29	9.21	8.25	7.40	6.63
viii.	Interest on Working Capital Loan		3.51	3.51	3.51	3.51	3.51	3.51	3.51	3.51
ix.	Interest on Term Loan		10.93	10.93	9.37	7.81	6.25	4.68	3.12	1.56
	Total Expenditure		223.84	222.30	219.38	216.61	213.97	211.44	209.03	206.70
C	Profit before tax		33.25	34.79	37.71	40.49	43.12	45.65	48.06	50.39
D	Income tax @33%		10.97	11.48	12.45	13.36	14.23	15.06	15.86	16.63
E	Profit After tax, Interest & Dep.		22.28	23.31	25.27	27.13	28.89	30.58	32.20	33.76
F	Loan Repayment		0.00	14.39	14.39	14.39	14.39	14.39	14.39	14.39
G	Salvage Value									58.69
H	Cashflow for IRR	-155.000	58.58	58.58	58.58	58.58	58.58	58.58	58.58	117.28
I	IRR		35.68%							
J	DSCR		4.36	1.86	1.94	2.04	2.15	2.28	2.44	2.63
K	Average DSCR		2.31							

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