Detailed Project Report

on

Feed Plant (Cattle and Poultry)

Under MKUY

Name of the Entrepreneur/Entity:

Address:

Contents

1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Cattle and Poultry Feed Plant
2	Sector (as per the Illustrative List of Enterprises)	AH&VS
3	Project Capacity[1]	4 – 5 MT/hr
4	Key components of the project	Cattle & Poultry Feed Manufacturing and Selling
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	
7	Total Project Cost	Rs. 3,57,30,760
8	Fixed Capital Cost	Rs. 3,22,17,760
9	Working/Recurring capital	Rs. 35,13,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 3,14,55,084 Term Loan: 2,89,95,984 CC: 24,59,100
12	Promoter Contribution (min 10% in case of bank loan)	Rs. 42,75,676
13	Assumed Rate of Interest	11%
14	Subsidy Eligibility (40%, 50%)	
15	Repayment Terms (Tenure, Moratorium, Frequency, Mode of Repayment: equal principal/equal instalment)	Equal Monthly Instalment
16	Key Financial Indicators: 1. Average Annual Net Profit 2. Debt Service Coverage Ratio (DSCR) 3. Internal Rate of Return 4. Break Even Point (BEP)/Year	 Rs. 1,37,03,551 2.54 34.09% 2 Year 11 Month
17	Estimated employment to be generated (nos.)	13

Note: This DPR is prepared based on a tentative quotation. Final CIS will be calculated as per the cost norms of MKUY guideline.

[1] Capacity can be in terms of area or quantity

2. Project Profile

2.1 Entrepreneur/Entity Profile

1	Name of the Entrepreneur/Entity	
2	Legal status (Individual/ Group/ FPO/ FPC/ Proprietorship/ Partnership firm/ Company/ Cooperative/ Federation/ Society/ Trust)	
3	Name of Representative[2] in Ease of entity	
4	Gender (Male/ Female/ Third Gender/ Not Applicable)	
5	Date of Birth of Individual/Representative of Entity	
6	Date of Incorporation/Registration of Entity	
7	Category opted for (Women/ ST/ SC/ Differently Abled/ Third gender/ Agri & Allied Graduate)	
8	Educational Qualification of Individual/Representative of Entity	
9	Passport size photograph of the Individual/ Representative of entity	
10	Local Address for Correspondence of the Individual/ Representative of entity	
11	Registered Address of Entity	
12	Main Office/Branch Address of Entity	
13	Phone no. of Individual/Representative of Entity	
14	Email Id of Individual/Representative of Entity	
15	AADHAR No. of Individual/Representative	
16	PAN of Individual/Representative of Entity, if available	
17	Farmer Id of Individual, if available	
18	Details of other Partner/Director/ President/Secretary	
19	Registration No./ CIN of the Entity[3]	
20	PAN/TAN of Entity	
21	GSTIN of Entity, if available	

[2] Representative should be authorized by the board/governing body of the entity.

[3] Registration document:
Groups (SHG/PG/: FPO: Proprietorship firm: Registration Certificate under Shops & Establishment Act, Partnership firm: Registration Certificate from IGR of state, Company (Pvt. Ltd., Public Ltd., LLP, OPC, FPC): Certification of Incorporation, Cooperative/ Federation: Certificate of Registration from Registrar of Cooperative Societies, Sciety/Trust: Darpan Unique Id

22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e-learning/certificate courses, trainings undertaken etc.)	

2.2. Project Consultant Details

DPR prepared by: APICOL

2.3. Concept and Scope of the Project

Incessant population growth and rising affordability has surged demand for animal protein in India. Growth of Indian animal feed market is propelled by rise in demand for animal protein, surge in dairy products consumption and growth of livestock population. However, there are various factors restraining growth of the market which includes high import duties on feed ingredients, vague regulatory regime, volatility in raw material prices and frequent disease outbreak. The market is characterized by leading trends such advent of non-traditional feed ingredients, genetically modifies animal feed and technological innovation in the industry. Animal feed industry deals with food given to animals in cattle, poultry and aquaculture sector as part of animal husbandry. Indian feed industry predominantly caters to cattle and poultry feed segment.

The cattle feed industry is still at nascent stage despite India being the world's largest milk producer. The low productivity of Indian dairy animals is attributed to many factors of which feed and feeding system is considered as one of the major ones. Awareness and knowledge about feed and feeding practices is low in majority of the dairy farmers. Rural dairy farmers who contribute over 90 per cent of the total milk production rear low yielding animals which are reared mainly on grazing of low nutritious grass and some homemade concentrates. Even farmers who use compound cattle feed use the low-grade variety which mainly contains De-Oiled Rice Bran (DORB) and some other grains. The need for balanced feeding and feed balancing is not known to these farmers. Good quality compound cattle feed is mainly used by large dairy farmers and farmer-members of cooperative organisations.

The role of cattle feed industry is not well recognised either by farmers, the veterinarians or milk processors. So, this is the right time for cattle feed industry to reposition themselves as an effective tool to enhance productivity. As poultry feed production has undergone major changes from mash to pellets/crumbs, the cattle feed industry also needs to further improve its manufacturing practices. Unfortunately, all over the world, Total Mixed Rations (TMR) is used to feed high yielding animals and use of compound feeds is not popular. So, the Indian feed industry will need to draw their own roadmap to better their future and contribute actively to enhancing animal productivity.

The Indian cattle feed industry has grown at over 6 per cent per annum in the last decade. Thus, India is one of the largest and fastest growing cattle feed markets in the world. This growth is attributed to many factors such as increased awareness about the importance of compound feed, increase in crossbred cattle and buffalo population, growing popularity of commercial dairy farms and most importantly the introduction of the 'National Dairy Plan'

wherein focus is on enhancing animal productivity. In addition, there is substantial increase in the farm gate prices of milk which, in turn, has made the farmers to look at the dairy business more seriously and invest money on good feeding and breeding practices to get better returns.

Compound Cattle Feed

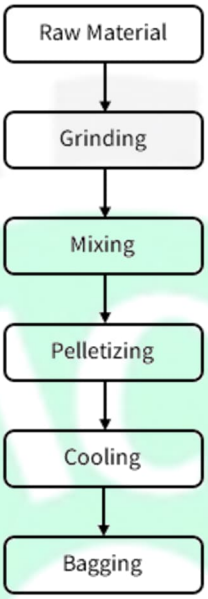
Compound cattle feed is a homogenous blend of various concentrate feed ingredients, supplemented with basal diet namely the De-Oiled Rice Bran (DORB). The commonly used ingredients in the compound cattle feed include grains, bran, protein cakes/meals, chunnies, agro-industrial by-products, minerals, vitamins and health supplements in suitable proportions. The compound cattle feed is critical for milk production, reproduction and animal health. Usage of compound cattle feed is done primarily by farmers who maintain high yielding crossbred cows and buffaloes. The low yielding dairy animals are generally raised on grazing and homemade concentrates.

For production of better-quality feed at competitive price, all new cattle feed plants being executed by the NDDB are incorporating the following features:

- Adopting latest technology available.
- Incorporating energy efficient and hygienic designed equipment.
- Changing the process flow.
- Providing mechanical conveying system for material handling in place of suction pneumatic system.
- Providing localised aspiration system in all dust generation areas for dust free operation.
- Increasing automation level to reduce labour cost and dependence on labour.
- Facilitate for easy handling of raw materials in the warehouse and finished feed.

Main cattle feed ingredient	Level of incorporation (percentage)
Grains: Maize, sorghum, wheat, rice, oats, barley, ragi, millets etc.	10 – 15
Brans: De-oiled rice bran, rice polish, wheat bran, maize bran etc.	35 – 45
Protein meals/cakes: Rapeseed meal/cake, soybean meal, cottonseed meal/cake (decorticated and un-decorticated), groundnut meal/cake, coconut meal/cake, palm kernel meal/cake, sesame cake, linseed cake, maize germ oil cake, maize gluten meal, sunflower meal, kardi (safflower) meal, guar meal etc.	25 – 35
Chunnies: Guar, tur, urd, moong, gram & chunnies of other locally available pulses.	4 – 6
Molasses	8 – 10

Basic Pellet Feed Making Process



Agro-industrial by-products: Babul chunni, tamarind seed powder, mango kernel extraction, Prosopis juliflora pods, tapioca waste etc.	5 – 7
Minerals and vitamins: Mineral mixture, calcite powder, common salt, di-calcium phosphate, vitamins A, D3 & E.	1 – 2

Process Flow

Ingredient calculation

Ingredients for 1000 kg Poultry Feed			
Ingredient	**Qty (kg)**	**Cost per kg**	**Total (Rs)**
Maize/corn	510.00	18.00	9,180.00
Deoiled Rice Bran (DORB)	75.00	18.00	1,350.00
Soya DOC	360.00	25.00	9,000.00
Soya Oil	15.00	85.00	1,275.00
Limestone Powder (LSP)	12.00	10.00	120.00
Dicalcium Phosphate (DCP)	9.50	50.00	475.00
L-Lysine	2.00	150.00	300.00
D.L Methionine 98%	3.20	220.00	704.00
Threonine	1.00	300.00	300.00
Choline Chloride 60%	1.50	60.00	90.00
Tracemin CB	1.10	180.00	198.00
Brovit Classic	0.60	25.00	15.00
Salt Pure	2.22	8.00	17.76
Sodium Bicarbonate (SBC) pure	1.60	22.00	35.20
Other ingredients	5.28	45.00	237.60
Total	**1,000**		**23,298**

Ingredients for 1000 kg Cattle Feed			
Ingredient	**Qty (kg)**	**Cost per kg**	**Total (Rs)**
Maize/Corn	290.0	18.0	5,220.00
Deoiled Rice Bran (DORB)	704.0	18.0	12,672.00
Oil Seed Cake	0.4	25.0	10.00
Wheat Choked	0.8	20.0	16.00
Molasses	1.2	14.0	16.80
Mineral Mixture	1.3	30.0	39.00
Other Raw Material	0.5	25.0	12.50
Biri Chunni/Muga Chunni	0.4	20.0	8.00

Salt	1.4	8.0	11.20
Total	**1,000**		**18,006**

Market Opportunity

The organised dairy sector which currently handles just 25 per cent of India's total milk production is expected to increase to 35 per cent by 2020. This, in turn, is bound to have a positive growth effect on the Indian cattle feed industry. NDDB has initiated schemes to educate dairy farmers about the importance of feeding not only the lactating dairy animals but also the young, dry and pregnant dairy animals. They are educating farmers and offering services like feed balancing and providing balanced feed from the available resources. All these activities are expected to yield better results not only in increasing milk production but also in expanding the cattle feed industry.

To meet the domestic demand for the milk in the coming years, higher growth of milk production needs to come from increasing the average milk production from each animal. This clearly drives the focus on feeding, breeding and management. These initiatives provide a great opportunity to the cattle feed industry to reposition themselves and develop new strategies to fully exploit the cattle feed potential to the maximum extent to achieve the growth targets in milk production. There is also a strong need for clean milk production which can be achieved through better management practices and offering residue free quality feed. The feed industry also needs to make technological improvements in manufacturing practices to provide quality feed as per the cattle's age, breed, production cycle, pregnancy stage, etc to get the maximum out of each animal as well as to utilise the available resources in a best possible way.

The Indian animal feed market size reached INR 956.7 billion in 2022. Looking forward, IMARC Group expects the market to reach INR 1,578.2 billion by 2028, exhibiting a growth rate (CAGR) of 8.2% during 2023-2028.

Factors affecting the domestic feed market and scope of new companies

The rising purchasing power of the Indian population, changing food habits with this and an increasing exposure to global cuisines are a major factor affecting the positive growth of the feed industry in India, who are now consuming a higher proportion of poultry as well as dairy products. A healthy GDP growth and the increasing urbanization are complementing the same. The domestic poultry industry has seen a maturation from backyard activity to integrated poultry farming on a large scale along with the acceptance of modern technology. This is currently an ongoing process with the transformation from a fragmented sector to now a more organized one and is further driving the industry's growth on an overall level. Since most of all the source of carbohydrates in feeds are cereal grains, a fluctuation in the prices of these greatly affects the feed prices and hence the domestic feed market. Over the past few years, feed prices had seen an uptrend backed by high maize prices, continued strong demand from the poultry sector and limited supply. The prices have now been stable and are an important factor in driving its growth. Also, poultry meat is preferred over other meats since it is considered more hygienic, more nutritious and is available at relatively cheaper prices than the others due to which the poultry feed industry in particular is seeing good growth. In recent

years, processed chicken segment has geared up as well and is expected to grow further. The annual per capita poultry meat consumption in India has seen an increase but it is still one of the lowest on a global level. This is a brilliant opportunity for further integration as well as growth in the industry offering a chance to new companies to enter the market. Similarly, the cattle feed industry as well as the aqua feed industry are either largely unorganized or use traditional feed as their major product. This is a clear indicator of the scope of entry of newer companies to make the markets more organized and bring a shift from traditional feed to better commercial feed. Price, convenience, availability and the quality of feed are major factors that affect the purchasing decision of the farmers and hence affect the domestic feed market.

3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	3	%
3	Collection from Debtors (First Year)	10	Days
4	Collection from Debtors	10	Days
5	Payable to Creditors	15	Days
6	Drawing By Promoter	50	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	11	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	5	Days
12	Finished Goods in stock (on sales)	15	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	30	%
15	Working Capital Requirement	10	Days
17	Working Capital Utilisation	100	%
18	No of working days	290	Days
19	Yield	95	%
20	Production of Poultry Feed per day	10000	MT
21	Production of Cattle Feed per day	10000	MT

1. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit (Rs)	Total (Rs)
A	**Land**				
1	Land Development	20000	LS	14,000	20000
2	Fencing (Barbed wire)	600	60.00	36,000	600
	Sub Total			**50,000**	
B	**Civil Construction**				
1	Feed production area (foundation for equipment, flooring and shed) with Store	Sq. ft	13200	700.00	92,40,000
2	Office	Sq. ft	250	850.00	2,12,500

Sl. No.	Particulars	Unit	Qty.	Cost per unit (Rs)	Total (Rs)
3	Labour Shed	Sq. ft	300	350.00	1,05,000
	Sub Total				**95,57,500**
C	**Water Supply**				
1	Borewell / Tube well with pump, pipeline, overhead tank and fitments	LS			**2,50,000**
D	**Electrification**				
1	Electrical Installation (with transformer and DG Unit as required)	LS			**10,00,000**

E	**Plant & Machinery**				
Sl. No.	**Particulars**	**Unit/ Specification**	**Qty.**	**Unit Price (Rs)**	**Total (Rs)**
1	**Intake Section**				
1.1	Jute Remover	Mild Steel, Sheet thickness - 2 mm	1	2,38,076	2,38,076
1.1.1	Geared Motor for Jute Remover	50RPM, 2 HP	1	28,320	28,320
1.2	Dust Collector	Mild Steel, Sheet thickness - 3 mm	1	2,10,067	2,10,067
1.2.1	Induction Motor for Dust Collector	2800 RPM, 2 HP	1	10,296	10,296
1.3	Weighing Hopper with magnetic grill	Mild Steel, Sheet thickness - 3 mm	2	2,73,087	5,46,174
1.4	Intake Chain Conveyor	Mild Steel, Sheet Thickness- 4mm, Chain Width - 285 mm, Chain Type - Redler Chain	1	3,99,127	3,99,127
1.4.1	Geared Motor for Intake Chain Conveyor	60 RPM, 5 HP	1	53,100	53,100
2	**Grinding Section**				
2.1	Grinder's Bucket Elevator	Mild Steel, Sheet Thickness - 2mm/3mm, Bucket Size - 7" x 5", Belt Type - 4 Ply Nylon	1	1,81,498	1,81,498
2.1.1	Geared Motor for Grinder's Bucket Elevator	95 RPM, 5 HP	1	53,100	53,100
2.2	Transition Piece with Cascading Magnet	Mild Steel, Sheet	1	77,024	77,024

		Thickness- 2 mm			
2.3	Bin over Hammer Mill	Capacity- 1000 Kg, MOC- Mild Steel, Sheet Thickness- 2mm	1	63,020	63,020
2.4	Magnetic Plate	Magnetic Flux Density of Magnet - 8000 Gauss	1	29,509	29,509
2.5	Rotary Feeder for Hammer Mill	Mild Steel, Sheet Thickness- 5mm	1	91,029	91,029
2.5.1	Geared Motor for Rotary Feeder	60 RPM, 2 HP	1	28,320	28,320
2.6	Variable Frequency Drive		1	22,132	22,132
2.7	Full Screen Hammer Mill	Mild Steel, Sheet Thickness - 5mm & 12mm, Screen Size - 21.5" x 34"	1	3,71,118	3,71,118
2.7.1	Induction Motor for Hammer Mill	RPM 2800, 60 HP	1	1,64,071	1,64,071
2.8	Transition Piece	MOC- Mild Steel, Sheet Thickness- 2 mm	1	7,002	7,002
2.9	Hopper	Sheet Thickness- 2 mm	1	21,006	21,006
3	**Mixing Section**				
3.1	Mixer's Bucket Elevator	Mild Steel, Sheet Thickness - 2mm/3mm. Bucket Size - 7" x 5", Belt Type - 4 Ply Nylon, Elevator type - Twin Leg	1	1,91,581	1,91,581
3.1.1	Geared Motor for Mixer's Bucket Elevator	95 RPM, 5 HP	1	53,100	53,100
3.2	Transition Piece	Mild Steel, Sheet Thickness - 2 mm	1	7,002	7,002
3.3	Batching bin above mixer	Mild Steel, Sheet Thickness- 2 mm, Includes medicine/mineral Premix inlet point	1	63,020	63,020
3.4	Double Ribbon Mixer	Mild Steel,Sheet thickness- 3mm,	1	4,55,145	4,55,145

		Shaft Size - 100 mm			
3.4.1	Induction Motor for Double Ribbon Mixer	1440 RPM, 15 HP	1	47,486	47,486
3.5	Pneumatically operated slide gate		1	1,32,792	1,32,792
3.6	Mineral Mixer	Stainless Steel, Sheet Thickness- 3 mm, Capacity - 100 kg per batch	1	1,61,051	1,61,051
3.6.1	Geared Motor for Mineral Mixer	60 RPM, 2 HP	1	28,320	28,320
3.7	Mineral Hopper	Stainless Steel, Sheet thickness - 2mm	1	42,013	42,013
3.8	Bin below mixer	Capacity- 2000 Kg, MOC- Mild Steel, Sheet Thickness- 3mm	1	1,26,040	1,26,040
3.9	Mixer's Chain Conveyor	Mild Steel, Sheet Thickness - 4mm, Chain Width - 285 mm, Chain Type - Redler Chain	1	63,020	63,020
3.9.1	Geared Motor for Mixer's Chain Conveyor	50 RPM, 3 HP	1	31,860	31,860
3.10.	Molasses/Oil Pump with Base Frame	Pump Type - Gear Pump	1	28,008	28,008
3.10.1	Induction Motor for Molasses/Oil Pump	1440 RPM, 5 HP	1	18,900	18,900
3.11	Molasses/Oil Tank	Mild Steel, Sheet Thickness - 3mm, Volume - 800 litre	1	42,013	42,013
3.12	Molasses/Oil Pipeline, Valves		1	95,905	95,905
3.13	Molasses/Oil Spray System		1	1,75,056	1,75,056
3.13.1	Induction Motor for Molasses/Oil Spray System	1440 RPM, 3 HP	1	14,935	14,935
4	**Pelleting Section**				
4.1	Pellet Mill's Bucket Elevator	Mild Steel | Sheet Thickness -2mm/3mm, Bucket Size - 7" x 5", Belt Type- 4 Ply Nylon, Elevator Type _Twin Leg	1	2,47,039	2,47,039
4.1.1	Geared Motor for Pellet Mill's Bucket Elevator	95 RPM, 5 HP	1	53,100	53,100

4.2	Pneumatic operated 2 Way Flap	Mild Steel | Sheet Thickness - 2 mm	1	44,264	44,264
4.3	Transition Piece	Mild Steel, Sheet Thickness -2 mm	1	14,004	14,004
4.4	Storage bin above Pellet Mill	Capacity- 1000 Kg, MOC- Mild Steel, Sheet Thickness- 2 mm	1	63,020	63,020
4.5	Single Shaft Pellet Mill Feeder	Stainless Steel, Sheet Thickness -3mm	1	1,19,038	1,19,038
4.5.1	Geared Motor for Pellet Mill Feeder	95 RPM, 3 HP	1	31,860	31,860
4.6	Variable Frequency Drive		1	25,083	25,083
4.7	Single Shaft Pellet Mill Conditioner	Stainless Steel, Sheet thickness - 3mm	1	2,38,076	2,38,076
4.7.1	Geared Motor for Pellet Mill Conditioner	95 RPM, 6 HP	1	63,720	63,720
4.8	Magnetic Plate	Magnetic Flux Density of Magnet - 8000 Gauss	1	36,886	36,886
4.9	Senior Ring Die Pellet Mill		1	11,34,362	11,34,362
4.9.1	Induction Motor for Ring Die Pellet Mill	1440 RPM, 150 HP	1	3,57,609	3,57,609
4.10.	Transition Piece	Mild Steel, Sheet Thickness- 2 mm	1	7,002	7,002
5	**Cooling Section**				
5.1	Rotary Airlock Valve above Counter Flow Cooler	Mild Steel, Sheet thickness- 3mm	1	49,015	49,015
5.1.1	Geared Motor for Rotary Feeder for Counter Flow Cooler	60 RPM, 2 HP	1	28,320	28,320
5.2	Counter Flow Cooler	Stainless Steel, Sheet thickness- 3mm	1	6,30,201	6,30,201
5.2.1	Geared Motor for Counter Flow Cooler	18-24 RPM, 2HP	1	35,400	35,400
5.3	Blower for Counter Flow Cooler	Mild Steel, Sheet Thickness- 5mm, Blower Type - Induced Draught	1	1,12,035	1,12,035
5.3.1	Induction Motor for Blower for Counter Flow Cooler	1440 RPM, 15 HP	1	47,486	47,486
5.4	Cyclonic Separator		1	49,015	49,015

5.5	Cooler's & Cyclone Pipeline	Sheet thickness - 2mm, MOC - Mild Steel	1	77,024	77,024
5.6	Sight Glass Assembly		1	5,901	5,901
5.7	Airlock Valve below Cyclonic Separator	Cast Iron, Airlock Size - 150mm	1	14,754	14,754
5.7.1	Geared Motor for Airlock	80 RPM, 1 HP	1	22,420	22,420
5.8	Cooler Collector Bin	Mild Steel, Sheet Thickness -2mm	1	42,013	42,013
5.9	Rotary Feeder for Crumbler	Mild Steel, Sheet thickness- 4mm	1	84,026	84,026
5.9.1	Geared Motor for Rotary Feeder for Crumbler	60 RPM, 1 HP	1	22,420	22,420
5.10.	Variable Frequency Drive		1	19,181	19,181
5.11	Crumbler	Mild Steel, Sheet Thickness - 10mm,5mm, Roller Size - 150mm (Dia), 1465mm (Length)	1	3,85,123	3,85,123
5.11.1	Induction Motor for Crumbler	1440 RPM, 6 HP	1	29,825	29,825
5.12	Transition Piece	Mild Steel | Sheet thickness- 2 mm	1	7,002	7,002
5.13	Chain Conveyor	Mild Steel, Chain Width - 285 mm, Chain Type- Redler Chain	1	50,416	50,416
5.13.1	Geared Motor for Chain Conveyor	60 RPM, 2 HP	1	28,320	28,320
6	**Sieve & Pre-bagging Section**				-
6.1	Vibratory Screener's Bucket Elevator	Mild Steel, Sheet Thickness- 2mm/3mm, Bucket Size - 7" x 5", Belt Type - 4 Ply Nylon, Elevator Type - Twin Leg	1	2,47,039	2,47,039
6.1.1	Geared Motor for Vibratory Screener's Bucket Elevator	95 RPM, 5 HP	1	53,100	53,100
6.2	Transition Piece	Mild Steel | Sheet Thickness- 2 mm	1	7,002	7,002

6.3	Vibratory Screener	Mild Steel, Sheet Thickness- 3 mm/2.5mm	1	2,31,073	2,31,073
6.3.1	Vibro Motor for Vibratory Screener	960 RPM, 1 HP	1	24,780	24,780
6.4	Recycling Pipeline	Mild Steel, Sheet Thickness - 2 mm	1	35,011	35,011
6.5	Bagging bin below Vibratory Screener	Mild Steel, Sheet Thickness- 2mm	1	1,89,060	1,89,060
6.6	Manual Packing Chute	Mild Steel, Sheet Thickness - 2 mm	1	21,006	21,006
7	**Auto-Bagging Section**				
7.1	Auto-Bagging Machinery		1	12,54,152	12,54,152
7.1.1	Induction Motor for Auto-Bagging, Stitching Machine	1440 RPM, 1HP	1	8,370	8,370
7.1.2	Geared Motor for Slot Conveyor		1	28,320	28,320
8	**Other Expenses**				
8.1	Steel Structure for placement of machinery (Approx weight- 25 Metric Tonnes)			36,88,680	36,88,680
8.2	MCC panel			8,11,509	8,11,509
8.3	Training & Installation			12,54,151	12,54,151
8.4	Accessory	Bolts, pulleys, belts, foundation bolts, sprockets etc.		1,84,434	1,84,434
8.5	Electrical Fitting			209812	209812
8.6	Air Compressor	5 HP	1	2,06,566	2,06,566
8.7	Cables			3,68,868	3,68,868
8.8	Pneumatic System			36,886	36,886
8.9	Welding Material & Painting			44,264	44,264
8.10.	Air Pipeline			14,754	14,754
8.11	Packaging, Loading & Forwarding			92,630	92,630
8.12	Cable Tray			66,396	66,396
8.13	Boiler	1 T		26,55,849	26,55,849
8.14	Pneumatic Control System			59,018	59,018
8.15	Remote Panel			1,62,334	1,62,334
8.16	Transportation	LS		7,00,000	7,00,000
	Total				**2,12,01,260**
G	**Miscellaneous Expenditure**				
1	Insurance premium of assets				100000
2	DPR Cost				59000
3	Other Misc. Exp				-
	Total Misc. Exp				**159000**

4.2. Project Variable Expenses

2	Details of Recurring Expenditure					
A	**Details of raw material @ 100% Capacity**					
Sl. No.	**Items**	**Unit**	**Rate per Unit (Rs)**	**Qty per day**	**Qty/annum (kg)**	**Total (Rs)**
A	**Poultry Feed**					
1	Maize/corn	Kg	18.00	5,100	14,79,000	2,66,22,000
2	Deoiled Rice Bran (DORB)	Kg	18.00	750	2,17,500	39,15,000
3	Soya DOC	Kg	25.00	3,600	10,44,000	2,61,00,000
4	Soya Oil	Kg	85.00	150	43,500	36,97,500
5	Limestone Powder (LSP)	Kg	10.00	120	34,800	3,48,000
6	Dicalcium Phosphate (DCP)	Kg	50.00	95	27,550	13,77,500
7	L-Lysine	Kg	150.00	20	5,800	8,70,000
8	D.L Methionine 98%	Kg	220.00	32	9,280	20,41,600
9	Threonine	Kg	300.00	10	2,900	8,70,000
10	Choline Chloride 60%	Kg	60.00	15	4,350	2,61,000
11	Tracemin CB	Kg	180.00	11	3,190	5,74,200
12	Brovit Classic	Kg	25.00	6	1,740	43,500
13	Salt Pure	Kg	6.00	22	6,438	38,628
14	Sodium Bicarbonate (SBC) pure	Kg	22.00	16	4,640	1,02,080
15	Other ingredients	Kg	45.00	53	15,312	6,89,040
	Total			**10,000**	**29,00,000**	**6,75,50,048**
B	**Cattle Feed**					
1	Maize/Corn	Kg	18.00	2,900	8,41,000	1,51,38,000
2	Deoiled Rice Bran (DORB)	Kg	18.00	7,040	20,41,600	3,67,48,800
3	Oil Seed Cake	Kg	25.00	4	1,160	29,000
4	Wheat Choked	Kg	20.00	8	2,320	46,400
5	Molasses	Kg	14.00	12	3,480	48,720
6	Mineral Mixture	Kg	30.00	13	3,770	1,13,100
7	Other Raw Material	Kg	25.00	5	1,450	36,250
8	Biri Chunni/Muga Chunni	Kg	20.00	4	1,160	23,200
9	Salt	Kg	8.00	14	4,060	32,480

	Total			**10000**	**2900000**	**52215950**
	Grand Total (A+B)			**20000**	**5800000**	**119765998**

2. Details of salary and other benefits				
Sl. No.	**Type of workers**	**No. of Worker**	**Salary Per Month/head (Rs)**	**Total Salary per annum (Rs)**
1	Unskilled	7	8,000	6,72,000
2	Skilled	3	12,000	4,32,000
3	Domain Skilled	1	18,000	2,16,000
4	Purchase and Store	1	15,000	1,80,000
5	Sales	1	18,000	2,16,000
	Grand Total	**13**	**71,000**	**17,16,000**

4.3. Details of Sales

Sl. No.	**Type of products**	**Unit**	**Rate/Unit (Rs)**	**Quantity/day**	**Quantity/annum**	**Total (Rs)**
1	Poultry Feed	Kg	35.00	9,500	27,55,000	9,64,25,000
2	Cattle Feed	Kg	25.00	9,500	27,55,000	6,88,75,000
	Total			**19,000**	**55,10,000**	**16,53,00,000**

4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	**-**	**51,10,836**	**85,97,845**	**1,02,70,783**	**1,24,01,145**	**1,48,35,682**	**1,66,22,159**
Add: Introduced	42,75,676						
Add: Profit	16,72,160	1,20,86,008	1,19,44,938	1,45,33,363	1,72,71,537	1,84,10,477	2,00,06,374
Less: Drawing	8,37,000	85,99,000	1,02,72,000	1,24,03,000	1,48,37,000	1,66,24,000	1,83,15,000
Closing Capital	**51,10,836**	**85,97,845**	**1,02,70,783**	**1,24,01,145**	**1,48,35,682**	**1,66,22,159**	**1,83,13,533**
Term Loan from Bank	2,60,83,841	2,28,34,708	1,92,09,590	1,51,64,977	1,06,52,326	56,17,477	-
Current Liabilities							
Cash Credit from Bank	24,59,100	24,59,100	24,59,100	24,59,100	24,59,100	24,59,100	24,59,100
Sundry Creditors	17,96,490	44,01,450	49,51,650	55,45,850	61,87,100	64,96,500	68,21,350
Expenses Payable	5,91,400	11,99,600	13,35,500	14,82,000	16,39,800	17,21,800	18,11,800
Current Provisions	4,48,783	49,11,861	48,51,402	59,60,727	71,34,230	76,22,347	83,06,303
Total Current Liabilities	**52,95,773**	**1,29,72,011**	**1,35,97,652**	**1,54,47,677**	**1,74,20,230**	**1,82,99,747**	**1,93,98,553**
Total Liabilities	**3,64,90,450**	**4,44,04,564**	**4,30,78,025**	**4,30,13,799**	**4,29,08,238**	**4,05,39,383**	**3,77,12,086**
Assets							
Fixed Assets	3,22,17,760	3,22,17,760	3,22,17,760	3,22,17,760	3,22,17,760	3,22,17,760	3,22,17,760
Less Depreciation	43,10,939	74,26,671	1,06,27,140	1,33,87,259	1,57,69,109	1,78,25,855	1,96,03,045
Net Fixed Assets	**2,79,06,821**	**2,47,91,089**	**2,15,90,620**	**1,88,30,501**	**1,64,48,651**	**1,43,91,905**	**1,26,14,715**
Current Assets							
Sundry Debtors	16,53,000	40,49,900	45,56,100	51,02,900	56,92,900	59,77,600	62,76,500
Inventories	31,84,500	40,82,800	79,91,776	89,82,210	1,00,51,690	1,10,73,959	1,16,27,683
Cash and Bank Balance	3,30,600	8,10,000	9,11,300	10,20,600	11,38,600	11,95,600	12,55,300
Other Current Assets	34,15,529	1,06,70,775	80,28,229	90,77,588	95,76,397	79,00,319	59,37,888
Total Current Assets	**85,83,629**	**1,96,13,475**	**2,14,87,405**	**2,41,83,299**	**2,64,59,587**	**2,61,47,478**	**2,50,97,371**
Total Assets	**3,64,90,450**	**4,44,04,564**	**4,30,78,025**	**4,30,13,799**	**4,29,08,238**	**4,05,39,383**	**3,77,12,086**

4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	9,80,750.00	33,30,189	43,10,939
	2	8,82,675.00	28,30,661	37,13,336
	3	7,94,407.50	24,06,062	32,00,469
	4	7,14,966.75	20,45,152	27,60,119
	5	6,43,470.08	17,38,379	23,81,850
	6	5,79,123.07	14,77,623	20,56,746
	7	5,21,210.76	12,55,979	17,77,190

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	**30**	**70**	**75**	**80**	**85**	**85**	**85**
Revenue							
Sales	4,95,90,000	12,14,96,000	13,66,83,000	15,30,85,000	17,07,86,000	17,93,26,000	18,82,93,000
Opening Stock of Finished Goods	-	(25,65,000)	(62,84,276)	(70,69,810)	(79,18,190)	(88,33,759)	(92,75,483)
Closing Stock of Finished Goods	25,65,000	62,84,276	70,69,810	79,18,190	88,33,759	92,75,483	97,39,293
Total Income (A)	**5,21,55,000**	**12,52,15,276**	**13,74,68,534**	**15,39,33,379**	**17,17,01,569**	**17,97,67,724**	**18,87,56,810**
Expenditure							
Opening stock of Raw Material	**-**	**6,19,500**	**15,17,800**	**17,07,500**	**19,12,400**	**21,33,500**	**22,40,200**
Purchase (Net) of Material	3,59,29,799	8,80,29,000	9,90,33,000	11,09,17,000	12,37,42,000	12,99,30,000	13,64,27,000
Closing Stock of Raw material	**6,19,500**	**15,17,800**	**17,07,500**	**19,12,400**	**21,33,500**	**22,40,200**	**23,52,200**
Raw Material Consumption	**3,53,10,299**	**8,71,30,700**	**9,88,43,300**	**11,07,12,100**	**12,35,20,900**	**12,98,23,300**	**13,63,15,000**
Repair and Maintenance [@5% of Cost]	3,21,678	3,37,800	3,54,700	3,72,500	3,91,200	4,10,800	4,31,400
Electricity expense	39,67,200	97,19,700	1,09,34,700	1,22,46,800	1,36,62,900	1,43,46,100	1,51,00,600
Insurance cost	1,00,000	1,05,000	1,10,300	1,15,900	1,21,700	1,27,800	1,34,200
Administrative salaries and wages	17,16,000	18,01,800	18,91,900	19,86,500	20,85,900	21,90,200	22,99,800
Other Misc. Expenses [@2% of sales]	9,91,800	24,29,920	27,33,660	30,61,700	34,15,720	35,86,520	37,75,136
Total Cost	**4,24,06,977**	**10,15,24,920**	**11,48,68,560**	**12,84,95,500**	**14,31,98,320**	**15,04,84,720**	**15,80,56,136**

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	**30**	**70**	**75**	**80**	**85**	**85**	**85**
Profit Before Depreciation, Interest and Tax	**97,48,023**	**2,36,90,356**	**2,25,99,974**	**2,54,37,879**	**2,85,03,249**	**2,92,83,004**	**3,07,00,674**
Depreciation	43,10,939	37,13,336	32,00,469	27,60,119	23,81,850	20,56,746	17,77,190
Profit Before Interest and Tax	**54,37,084**	**1,99,77,020**	**1,93,99,505**	**2,26,77,760**	**2,61,21,399**	**2,72,26,259**	**2,89,23,484**
Interest on Term Loan	30,45,640	27,08,650	23,32,664	19,13,170	14,45,132	9,22,933	3,40,306
Interest on Working Capital Loan	2,70,501	2,70,501	2,70,501	2,70,501	2,70,501	2,70,501	2,70,501
Total Interest Paid	**33,16,141**	**29,79,151**	**26,03,165**	**21,83,671**	**17,15,633**	**11,93,434**	**6,10,807**
Profit Before Tax	**21,20,943**	**1,69,97,869**	**1,67,96,340**	**2,04,94,090**	**2,44,05,767**	**2,60,32,824**	**2,83,12,677**
Income Tax	4,48,783	49,11,861	48,51,402	59,60,727	71,34,230	76,22,347	83,06,303
Profit after Tax	**16,72,160**	**1,20,86,008**	**1,19,44,938**	**1,45,33,363**	**1,72,71,537**	**1,84,10,477**	**2,00,06,374**

4.7. Projected Cash Flow

Period Ending	I	II	III	IV	V	VI	VII
Cash & Bank Balance at Beginning	-	3,30,600	9,94,903	10,96,203	12,05,503	13,23,503	13,80,503
Cash Inflow during the Period	4,08,01,389	2,34,75,582	1,84,13,594	1,91,43,507	2,16,25,939	2,30,22,819	2,48,44,801
Cash Outflow during the Period	4,04,70,789	2,28,11,279	1,83,12,294	1,90,34,207	2,15,07,939	2,29,65,819	2,47,85,101
Closing Cash & Bank Balance	**3,30,600**	**9,94,903**	**10,96,203**	**12,05,503**	**13,23,503**	**13,80,503**	**14,40,203**

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	30,45,639.86	59,57,782.71	29,12,142.86
2	27,08,650.07	59,57,782.71	32,49,132.64
3	23,32,664.22	59,57,782.71	36,25,118.49
4	19,13,169.73	59,57,782.71	40,44,612.98
5	14,45,131.82	59,57,782.71	45,12,650.89
6	9,22,933.12	59,57,782.71	50,34,849.60
7	3,40,306.18	59,57,782.71	56,17,476.54
Total	**1,27,08,495.00**	**4,17,04,479.00**	**2,89,95,984.00**

4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**
Net Sales	4,95,90,000	12,14,96,000	13,66,83,000	15,30,85,000	17,07,86,000	17,93,26,000	18,82,93,000
Net Profit	16,72,160	1,20,86,008	1,19,44,938	1,45,33,363	1,72,71,537	1,84,10,477	2,00,06,374
Interest Paid	33,16,141	29,79,151	26,03,165	21,83,671	17,15,633	11,93,434	6,10,807
Cash Accruals (a)	**49,88,301**	**1,50,65,159**	**1,45,48,103**	**1,67,17,033**	**1,89,87,169**	**1,96,03,911**	**2,06,17,181**
Principal	29,12,143	32,49,133	36,25,118	40,44,613	45,12,651	50,34,850	56,17,477
Interest	33,16,141	29,79,151	26,03,165	21,83,671	17,15,633	11,93,434	6,10,807
Total (b)	**62,28,284**	**62,28,284**	**62,28,284**	**62,28,284**	**62,28,284**	**62,28,284**	**62,28,284**
DSCR	0.80	2.42	2.34	2.68	3.05	3.15	3.31
Average DSCR				**2.54**			

Calculation of Internal Rate of Return (IRR)				
Sl. No.	**Year**	**PAT**	**Depreciation**	**Cash Accrual**
	Cash outflow at beginning			-3,57,30,760
1	31-03-2023	16,72,160	43,10,939	59,83,099
2	31-03-2024	1,20,86,008	37,13,336	1,57,99,344
3	31-03-2025	1,19,44,938	32,00,469	1,51,45,407
4	31-03-2026	1,45,33,363	27,60,119	1,72,93,482
5	31-03-2027	1,72,71,537	23,81,850	1,96,53,386
6	31-03-2028	1,84,10,477	20,56,746	2,04,67,223
7	31-03-2029	2,00,06,374	17,77,190	2,17,83,564
IRR		**34.09%**		
Payback Period		**2 Years 11 Months**		

Calculation of Break-Even Point (BEP)

Sales	**5,21,55,000**	**12,52,15,276**	**13,74,68,534**	**15,39,33,379**	**17,17,01,569**	**17,97,67,724**	**18,87,56,810**
Variable Cost	3,63,02,099	8,95,60,620	10,15,76,960	11,37,73,800	12,69,36,620	13,34,09,820	14,00,90,136
Contribution	**1,58,52,901**	**3,56,54,656**	**3,58,91,574**	**4,01,59,579**	**4,47,64,949**	**4,63,57,904**	**4,86,66,674**
Fixed Cost	1,37,31,957	1,86,56,787	1,90,95,234	1,96,65,490	2,03,59,182	2,03,25,080	2,03,53,997
BEP Sales	**4,51,77,237**	**6,55,20,607**	**7,31,36,771**	**7,53,78,661**	**7,80,90,194**	**7,88,17,052**	**7,89,44,280**

Average BEP sales	**7,07,23,543**

4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount
1	Land Development Fencing	50,000
2	Civil Construction	95,57,500
3	Irrigation/Water Supply	2,50,000
4	Electrification	10,00,000
5	Plant & Machinery	2,12,01,260
6	Livestock	-
7	Insurance	1,00,000
8	DPR Cost	59,000
9	Other Misc. Exp	-
	Total Fixed Cost	**3,22,17,760**
	Recurring	**35,13,000**
	Cost of Project	**3,57,30,760**

2	**Working Capital Requirement**	
	Heads of Expenses	**Amount/year**
A	Raw Material	11,97,65,998
B	Salary	17,16,000
C	Utilities	39,67,200
D	Other Expenses	9,91,800
	Subtotal per year	**12,64,40,998**
	Working capital requirement	**35,13,000**