Detailed Project Report

on

Soya Chunk Processing

Under MKUY

Name of the Entrepreneur/Entity:

Address:

Contents

1. Project Summary

1	Name of the Enterprise (as per the Illustrative List of Enterprises)	Soya Chunk Processing
2	Sector (as per the Illustrative List of Enterprises)	Agriculture
3	Project Capacity[1]	2550 kg/day
4	Key components of the project	Processing, Packaging and Selling
5	Project Address (Village/Ward, Gram Pranchayat/Municipality, Block, District)	
6	Products/Output from the project	Soya Chunk
7	Total Project Cost	Rs. 1,65,58,000
8	Fixed Capital Cost	Rs. 1,42,84,000
9	Working/Recurring capital	Rs. 22,74,000
10	Bank Finance/ Self Finance	Bank Loan
11	Bank Loan Amount	Rs. 1,42,20,000
12	Promoter Contribution (min 10% of the project cost in case of bank loan)	Rs. 23,38,000
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	Rs. 49,53,377
	2. Debt Service Coverage Ratio (DSCR)	2.13
	3. Internal Rate of Return	26.45%
	4. Break Even Point (BEP)/Year	3 Years and 6 Month
17	Estimated employment to be generated (nos.)	19

Note: The price quoted in the DPR is indicative. Final CIS will be calculated as per the Rate in 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	
22	Details of experience and exposure relevant to the proposed enterprise/project (family business, work experience, e-learning/certificate courses, trainings undertaken etc.)	

[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, Society/Trust: Darpan Unique Id

2.2. Project Consultant Details

DPR prepared by: APICOL

Please provide further details of the consultant:

2.3. Concept and Scope of the Project

Soya chunks or chunks are made of soy flour, which is a by-product of soy oil extraction. It has the same protein content as meat. It can be cooked quickly and easily, it can be used to cook a lot of dishes, such as soya pulao, soups, stir-fries etc. Soya chunks are the cheapest and safest food for well-being. Due to its good nutritive values, and medicinal qualities, soy chunks, and related food products became popular all over the world. They are also similar chewy characteristics on soaking in water. Also, they are free from cholesterol.

Raw Material

The Soy Flour or Soybean can both be used as raw materials but if soybeans are being used then the process starts with soybean processing into soy flour. The conversion of soy flour into defatted soy flour, then the actual soy chunks manufacturing process can start. The process discussed in this material is soya chunks manufacturing from defatted soy flour, thus the raw material required is Defatted Soy Flour & Packaging Material.

Defatted Soya Flour (Toasted) is obtained from selected, pre-cleaned, cracked, dehulled, and solvent 'Non-GMO' soybeans harvested by milling. It is a natural product in which no chemicals or preservatives are present. For packing, HDPE Bag with inner liners (food grade) is required, and to pack those bags for transportation in bulk, cardboard boxes are required.

Manufacturing Process

Defatted Soy Flour Storage before processing:

Because of poor flowability and bridging characteristics, defatted flour is hard to handle. Soybean meal takes more time to stabilize or consolidate. With increased moisture, a longer time frame, and small particles, this phenomenon gets more serious. Several processors are micro-millers and follow the policy of keeping shorter/smaller stocks to make available enough raw materials only for few batches. The speculative character of the markets also contributes to high procurement costs.

Flour Blending and pre-conditioning:

A screw conveyor is generally used for intake and transfer to conditioner or mixer. The raw material passes through the pre-conditioner or mixing cylinders where moisture can be applied evenly in water or steam, with a moisture content of 10 to 25%. If steam applied, it is carefully injected into the raw material to maintain it at moderate temperatures between 65°C and 100°C. The blending cylinders are vented to avoid excess vapor and unwanted volatile flavouring elements in the raw soy protein. In order to ensure the comprehensive and continued mixing by all foodstuffs entering the extruder barrel, flavours, colouring agents and other additives may also be added at that time. The preconditioning process is an effective way to initiate growth inhibitors found in many raw soy proteins.

Cooking Extrusion:

The pre-conditioner discharges pre-conditioned material directly into the barrel of cooking extruder. Here, the raw or preconditioned soy protein is significantly transformed. In the last 2-5 seconds of the extruder barrel, the temperature of this moist proteinaceous dough is quickly increased. Retaining times of 5-15 seconds, temperatures of 100 to 200°C, and moisture levels

of 15 to 30% all influence the protein dough quality just behind the die and the final product expansion.

Drying

The moisture content in the extrusion processing of textured proteins is high and the cooked product must therefore be dried for safe storage. Different Dryers are used for reducing the moisture content of the final product.

Dryers with different lengths, widths, and passes allow proper sizing and versatility of installation on existing or new installations for the extruder production.

Cooling:

Once the product comes out of dryer, it is still not cool enough for packaging. A cooling conveyor with several cooling fans used generally.

Packaging of products:

After the proper drying process, the chunks are ready for the packaging by using appropriate packaging material, the soya chunks are packed according to market demand in various size bags.

Market Potential

The market for soya nuggets is rising as healthcare-conscious In heap more on their plate. Although new players of the market have begun to deliver soya chunks, older players have increased demand power. In India, the soy nugget market is rising annually at a rate of between 25% and 30%, leading businesses to become more aggressive. In the household as well as in commercial food joints, hostels, hospitals, protective cuisines, and others, the demand for Soya Nuggets has increased due to its high content of proteins, cheap price, and taste as well as easy-to-cook nature. Since soy nuggets are an adequate food substitute, particularly in the vegan diet, for consumers similar to meat but are cheaper than meat. Different related soya Products face the problem of adequate storage, however, this problem is remedied for soy chunks, as dehydrated soy granules can be stored easily for approximately 12 months.

The soy granules have various domestic uses in food and beverage preparation in different regions. Soy granules have different minerals; vitamins, lecithin, and is flavones enriched and are very healthy for reducing cholesterol and preventing bone loss and cancer. For expectant moms, cardiac, diabetics, the aged personalities, soy is proposed by medical practitioners to improve their condition. The growing awareness among people about their health benefits is a major source of demand in the world soya market.

They often help to stimulate demand by growing applications in various end-use segments, such as livestock feed. Dedicated protein ingredients have the benefit of first-hand movers and improved customer acceptance to deter demand in the global soybean industry, on the other hand. The global soybean market will increase from US$146.23 Billion in 2017 to US$215,746 Billion by 2025, at a CAGR of 5.0 percent over the period between 2017 and 2025.

Export Potential & Sales Aspect

In 2019 there was a US$ 40.5 trillion in the global soy food industry. Soybean is a type of legume originating in East Asia, with a low saturation but a high protein content, vitamin C, and folate content.

Iron, fiber, calcium, magnesium, potassium, phosphorus, and omega-3 fatty acids are strong sources. It has different health benefits because of its nutrient content, such as reducing blood cholesterol levels, raising bone density, and minimizing cancer danger. It is usually used in many recipes as an alternative to meat and is added to various vegan-friendly foods. The growing demand for plant-based foods confirms the soy market growth worldwide.

For the preparation of several things, soy milk, soybeans, tofu, tamari, tempeh, edamame, miso, natto, and teriyaki Soybeans have been used. Demand for tofu in particular for vegans and vegetarians is currently rising throughout the world. The lactose-intolerant user will eat an excellent replacement for cheese. Tofu's increasing sales are also certified in its shape, colour, taste, and texture to its resemblance to meat. Furthermore, because of the increasing consumer health awareness, other soy products such as snacks and drinks also experience steady global growth in demand.

Furthermore, companies invest in R&D to launch new varieties of soy foodstuffs to extend their product range and draw new customers.

As a growth lever for the global food market for soy, the nutritive value and versatility of these ingestible forms are significant. With health-conscious foods in mind, soy foods are an excellent alternative to milk, meat, and poultry-intensive diets. Recent surveys have shown that about 40% of consumers under the age of 35 eat soya at least one week, twice the age of 55. According to recent data, almost 80% of consumers have tried some of the most popular soy food items or drinks. Given these factors, over the forecast period 2020-2030, the global soy food market is forecast to expand in an impressive CAGR.

3. Techno-commercial Assumptions

Sl. No.	Parameter	Value	Unit
1	Increase in Rate of Product	5	%
2	Increase in Electricity consumption	5	%
3	Collection from Debtors (First Year)	15	Days
4	Collection from Debtors	15	Days
5	Payable to Creditors	20	Days
6	Drawing By Promoter	40	%
7	Increase in Staff Salary	5	%
8	Rate of Interest on TL	11	%
9	Rate of Interest on WC	9	%
10	Loan Repayment (in year)	7	Years
11	Raw Material in Stock (on sales)	7	Days
12	Finished Goods in stock (on sales)	5	Days
13	Promoter's Contribution (Term Loan)	10	%
14	Promoter's Contribution (Working Capital)	40	%
15	Working Capital Requirement	15	Days
16	Working Capital Utilisation	100	%
17	No. of Working Days	295	Days
18	Yield	90	%

4. Financial Details

4.1. Project Fixed Capital

Sl. No.	Particulars	Unit	Qty.	Cost per unit	Total
A	**Land**				
1	Land Development	sq. ft	7000	LS	4,900
2	Fencing (Barbed wire/Green Fencing)	ft	360	60	21,600
	Sub Total				**26,500**
B	**Civil Construction**				
1	Production area	sq. ft	3000	400.00	12,00,000
2	Store	sq. ft	2000	400.00	8,00,000
3	Office	sq. ft	200	850.00	1,70,000
4	Labour Shed	sq. ft	250	350.00	85,500
	Sub Total				**22,57,000**
C	**Water Supply**				
1	Water Supply with overhead tank and pump				**2,50,000**
D	**Electrification**				
1	Electrical Installation with transformer and DG Unit				**5,00,000**

Plant and Machinery

Sl. No.	Particulars	Specification	Qty	Unit Price	total
1	Screw conveyor from ground level to Ribbon Mixture driven by 3 HP Gear Box and Motor	MOC MS	1		1,10,00,000
2	Ribbon Mixture M/C for mixing raw material having capacity of 500 kgs with 7.5 Motor and Gear Box	MOC MS	1		
3	Screw conveyor for conveying raw dry ingredients from ground to surge bean tank and 5HP Geared motor	MOC MS	1		
4	Surge been tank capacity of 1500 kg with drive motor of 15 HP and 1 gear box of U700 vertical upward. Having diameter of 1200 mm and length 1500 mm	MOC MS	1		
5	Feed Screw conveyor for conveying ingredients from surge been tank to Bitter Mixture. Screw derived with 3 HP Geared motor. And material of Screw	MOC SS304.	1		
6	Pre-conditioner or Mixture with Material with 28 Bitter for Mixing Material with 7.5 Hp Motor and Pulley	MOC SS304	1	10,00,000	
7	Extruder (contain 4 screwed, 1 front screwed, with 5 slotted head with 6 clamps set and 1 Main Shaft of diameter 160, material is Forge EN 24. Pulley of		1		

	36 inch and 13.5-inch 6 Grove C sec. Motor for extruder drive is 215 HP Motor. Heavy structure is made for this extruder with 20 MS plate.				
8	Cutter System m/c with 18 holes die with 5 HP Motor and Gear Box VFD controller For Speed adjustment. with its MS structure		1		
9	Belt conveyor with Food Grade belt m/c with material and drive with 2 HP Geared Motor		1		
10	Pneumatic System M/C 7.5 HP with Material for Caring Material from conveyor to Drier with Rotary Valve with 2 HP Gear Box And Motor or Belt Conveyor / 2 HP Belt Conveyor		1		
11	TVP 1TPH Fluid – O – Bed Drier		1		
12	MS Structure for machines		1		
13	Vibrio M/C OD 1500 MM Two Deck with 3 HP Vibrio Motor		1		
14	Belt Conveyor M/C with Material with 2 HP Geared Motor		1		
15	Pre-wire Eclectic Panel for Above Equipment's		1		
16	Packing Machine (500g, 1000g)				
17	Stitching Machine (for Bulk Packing)				
	Total				**1,10,00,000**

4.2. Project Variable Expenses

Details of raw material						
Sl. No.	**Items**	**Unit**	**Rate per Unit (Rs)**	**Qty/day**	**Qty per annum (kg)**	**Total (Rs)**
1	Untoasted Soya Bean Flour	Kg	50.00	3000	8,85,000	4,42,50,000
2	Packaging material (Bulk Pack, 35kg)	Nos	10.00	41	11,948	1,19,475
3	Packaging material (500g. 1000g)	Nos	5.00	2835	8,36,325	41,81,625
	Total			**5,876**	**17,33,273**	**4,85,51,100**

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	Manager	1	20,000	2,40,000
2	Unskilled	10	10,000	12,00,000
3	Skilled	7	12,000	10,08,000
4	Purchase and Store	1	15,000	1,80,000
	Grand Total	20	**57,000**	**26,28,000**

4.3. Details of Sales

Details of sales (Per annum @100% capacity)						
Sl. No.	**Type of products**	**Unit**	**Rate/Unit (Rs)**	**Quantity per day**	**Quantity per annum**	**Total (Rs)**
1	Soya Chunk (Bulk Pack)	Kg	80	1350	3,98,250	3,18,60,000
2	Small Pack (500g, 1000g)	Kg	90	1350	3,98,250	3,58,42,500
	Total			**2,700**	**7,96,500**	**6,77,02,500**

4.4. Project Balance Sheet

Liabilities	I	II	III	IV	V	VI	VII
Opening Capital	**-**	**28,86,683**	**36,98,467**	**46,05,600**	**57,88,902**	**71,72,724**	**87,17,302**
Add: Introduced	23,38,000						
Add: Profit	9,14,683	32,78,784	39,78,133	50,43,302	61,66,822	73,57,578	79,34,335
Less: Drawing	3,66,000	24,67,000	30,71,000	38,60,000	47,83,000	58,13,000	66,61,000
Closing Capital	**28,86,683**	**36,98,467**	**46,05,600**	**57,88,902**	**71,72,724**	**87,17,302**	**99,90,637**
Term Loan from Bank	1,15,64,478	1,01,23,950	85,16,724	67,23,513	47,22,793	24,90,553	-
Current Liabilities							
Cash Credit from Bank	13,64,400	13,64,400	13,64,400	13,64,400	13,64,400	13,64,400	13,64,400
Sundry Creditors	16,18,370	25,48,933	28,54,867	31,85,000	35,41,000	39,24,667	41,20,933
Expenses Payable	5,15,500	6,89,400	7,55,000	8,25,400	9,01,000	9,82,000	10,31,700
Current Provisions	1,24,150	11,37,336	14,37,057	18,93,558	23,75,067	28,85,390	31,32,572
Total Current Liabilities	**36,22,420**	**57,40,069**	**64,11,324**	**72,68,358**	**81,81,467**	**91,56,457**	**96,49,605**
Total Liabilities	**1,80,73,581**	**1,95,62,486**	**1,95,33,648**	**1,97,80,773**	**2,00,76,984**	**2,03,64,312**	**1,96,40,242**
Assets							
Fixed Assets	1,42,27,500	1,42,27,500	1,42,27,500	1,42,27,500	1,42,27,500	1,42,27,500	1,42,27,500
Less Depreciation	20,08,750	37,28,725	52,01,988	64,64,416	75,46,620	84,74,719	92,71,007
Net Fixed Assets	**1,22,18,750**	**1,04,98,775**	**90,25,513**	**77,63,084**	**66,80,880**	**57,52,781**	**49,56,493**
Current Assets							
Sundry Debtors	16,92,600	26,65,800	29,85,700	33,31,000	37,03,300	41,04,500	43,09,700
Inventories	11,30,688	14,56,388	18,87,900	21,10,033	23,49,717	26,08,117	28,10,550
Cash and Bank Balance	3,38,600	5,33,200	5,97,200	6,66,200	7,40,700	8,20,900	8,62,000
Other Current Assets	26,92,944	44,08,323	50,37,335	59,10,455	66,02,388	70,78,015	67,01,499
Total Current Assets	**58,54,831**	**90,63,711**	**1,05,08,135**	**1,20,17,689**	**1,33,96,104**	**1,46,11,531**	**1,46,83,749**
Total Assets	**1,80,73,581**	**1,95,62,486**	**1,95,33,648**	**1,97,80,773**	**2,00,76,984**	**2,03,64,312**	**1,96,40,242**

4.5. Calculation of Depreciation

Rates of Depreciation		10%	15%	Total depreciation for the year
Year	1	2,50,750.00	17,58,000	20,08,750
	2	2,25,675.00	14,94,300	17,19,975
	3	2,03,107.50	12,70,155	14,73,263
	4	1,82,796.75	10,79,632	12,62,429
	5	1,64,517.08	9,17,687	10,82,204
	6	1,48,065.37	7,80,034	9,28,099
	7	1,33,258.83	6,63,029	7,96,288

4.6. Projected P&L

Description	Year ending March 31st						
	I	II	III	IV	V	VI	VII
Capacity Utilisation	**50**	**75**	**80**	**85**	**90**	**95**	**95**
Revenue							
Sales	3,38,51,250	5,33,16,000	5,97,14,000	6,66,19,000	7,40,65,000	8,20,89,000	8,61,94,000
Opening Stock of Finished Goods	-	(5,64,188)	(8,88,600)	(9,95,233)	(11,10,317)	(12,34,417)	(13,68,150)
Closing Stock of Finished Goods	5,64,188	8,88,600	9,95,233	11,10,317	12,34,417	13,68,150	14,36,567
Total Income (A)	**3,44,15,438**	**5,36,40,413**	**5,98,20,633**	**6,67,34,083**	**7,41,89,100**	**8,22,22,733**	**8,62,62,417**
Expenditure							
Opening stock of Raw Material	**-**	**5,66,500**	**8,92,200**	**9,99,300**	**11,14,800**	**12,39,400**	**13,73,700**
Purchase (Net) of Material	2,42,75,550	3,82,34,000	4,28,23,000	4,77,75,000	5,31,15,000	5,88,70,000	6,18,14,000
Closing Stock of Raw material	**5,66,500**	**8,92,200**	**9,99,300**	**11,14,800**	**12,39,400**	**13,73,700**	**14,42,400**
Raw Material Consumption	**2,37,09,050**	**3,79,08,300**	**4,27,15,900**	**4,76,59,500**	**5,29,90,400**	**5,87,35,700**	**6,17,45,300**
Repair & Maintenance-Machinery (@5% of Cost)	1,42,575	1,49,800	1,57,300	1,65,200	1,73,500	1,82,200	1,91,400
Electricity expense	27,08,100	42,65,300	47,77,200	53,29,600	59,25,200	65,67,200	69,01,000
Insurance cost	30,000	31,500	33,100	34,800	36,600	38,500	40,500

Administrative salaries and wages	26,28,000	27,59,400	28,97,400	30,42,300	31,94,500	33,54,300	35,22,100
Other Misc Expenses [@2% of sales]	6,77,025	10,66,320	11,94,280	13,32,380	14,81,300	16,41,780	17,25,248
Total Cost	**2,98,94,750**	**4,61,80,620**	**5,17,75,180**	**5,75,63,780**	**6,38,01,500**	**7,05,19,680**	**7,41,25,548**
Profit Before Depreciation, Interest and Tax	**45,20,688**	**74,59,793**	**80,45,453**	**91,70,303**	**1,03,87,600**	**1,17,03,053**	**1,21,36,868**
Depreciation	20,08,750	17,19,975	14,73,263	12,62,429	10,82,204	9,28,099	7,96,288
Profit Before Interest and Tax	**25,11,938**	**57,39,818**	**65,72,191**	**79,07,875**	**93,05,396**	**1,07,74,954**	**1,13,40,581**
Interest on Term Loan	13,50,309	12,00,902	10,34,205	8,48,219	6,40,711	4,09,190	1,50,877
Interest on Working Capital Loan	1,22,796	1,22,796	1,22,796	1,22,796	1,22,796	1,22,796	1,22,796
Total Interest Paid	**14,73,105**	**13,23,698**	**11,57,001**	**9,71,015**	**7,63,507**	**5,31,986**	**2,73,673**
Profit Before Tax	**10,38,833**	**44,16,120**	**54,15,190**	**69,36,860**	**85,41,889**	**1,02,42,968**	**1,10,66,907**
Income Tax	1,24,150	11,37,336	14,37,057	18,93,558	23,75,067	28,85,390	31,32,572
Profit after Tax	**9,14,683**	**32,78,784**	**39,78,133**	**50,43,302**	**61,66,822**	**73,57,578**	**79,34,335**

4.7. Projected Cash Flow

Period Ending:	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**
Cash & Bank Balance at Beginning	-	3,38,600	5,33,200	5,97,200	6,66,200	7,40,700	8,20,900
Cash Inflow during the Period	2,00,82,331	71,16,408	61,22,649	71,62,765	81,62,135	92,60,667	96,00,286
Cash Outflow during the Period	1,97,43,731	69,21,808	60,58,649	70,93,765	80,87,635	91,80,467	95,59,186
Closing Cash & Bank Balance	**3,38,600**	**5,33,200**	**5,97,200**	**6,66,200**	**7,40,700**	**8,20,900**	**8,62,000**

4.8. Projected Loan Repayment

Year	Interest	EMI	Principal
1	13,50,308.64	26,41,430.33	12,91,121.69
2	12,00,901.54	26,41,430.33	14,40,528.78
3	10,34,205.23	26,41,430.33	16,07,225.10
4	8,48,219.01	26,41,430.33	17,93,211.32
5	6,40,710.68	26,41,430.33	20,00,719.64
6	4,09,189.73	26,41,430.33	22,32,240.59
7	1,50,877.45	26,41,430.33	24,90,552.88
Total	**56,34,412.28**	**1,84,90,012.28**	**1,28,55,600.00**

4.9. Calculation of DSCR, IRR and BEP

Calculation of DSCR							
Year	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**
Net Sales	3,38,51,250	5,33,16,000	5,97,14,000	6,66,19,000	7,40,65,000	8,20,89,000	8,61,94,000
Net Profit	9,14,683	32,78,784	39,78,133	50,43,302	61,66,822	73,57,578	79,34,335
Interest Paid	14,73,105	13,23,698	11,57,001	9,71,015	7,63,507	5,31,986	2,73,673
Cash Accruals (a)	**23,87,788**	**46,02,482**	**51,35,134**	**60,14,317**	**69,30,329**	**78,89,564**	**82,08,008**
Principal	12,91,122	14,40,529	16,07,225	17,93,211	20,00,720	22,32,241	24,90,553
Interest	14,73,105	13,23,698	11,57,001	9,71,015	7,63,507	5,31,986	2,73,673
Total (b)	**27,64,226**	**27,64,226**	**27,64,226**	**27,64,226**	**27,64,226**	**27,64,226**	**27,64,226**
DSCR	0.86	1.67	1.86	2.18	2.51	2.85	2.97
Average DSCR	**2.13**						

Calculation of Break-Even Point (BEP)							
Sales	**3,44,15,438**	**5,36,40,413**	**5,98,20,633**	**6,67,34,083**	**7,41,89,100**	**8,22,22,733**	**8,62,62,417**
Variable Cost	2,43,86,075	3,89,74,620	4,39,10,180	4,89,91,880	5,44,71,700	6,03,77,480	6,34,70,548
Contribution	**1,00,29,363**	**1,46,65,793**	**1,59,10,453**	**1,77,42,203**	**1,97,17,400**	**2,18,45,253**	**2,27,91,868**
Fixed Cost	89,90,530	1,02,49,673	1,04,95,264	1,08,05,344	1,11,75,511	1,16,02,285	1,17,24,961
BEP Sales	**3,08,50,716**	**3,74,88,371**	**3,94,60,430**	**4,06,42,342**	**4,20,49,210**	**4,36,69,514**	**4,43,76,506**
Average BEP sales	**3,97,91,012**						

Calculation of Internal Rate of Return (IRR)				
Sl. No.	**Year**	**PAT**	**Depreciation**	**Cash Accrual**
	Cash outflow at beginning			-1,65,58,000
1	31-03-2023	9,14,683	20,08,750	29,23,433
2	31-03-2024	32,78,784	17,19,975	49,98,759
3	31-03-2025	39,78,133	14,73,263	54,51,395
4	31-03-2026	50,43,302	12,62,429	63,05,730
5	31-03-2027	61,66,822	10,82,204	72,49,027
6	31-03-2028	73,57,578	9,28,099	82,85,677
7	31-03-2029	79,34,335	7,96,288	87,30,623
IRR		**26.45%**		
Payback Period		**3 Years 6 Month**		

4.10. Summary of Project Cost

Sl. No.	Name of Assets	Amount (Rs)
1	Land Development	26,500
2	Civil Construction	22,57,500
3	Irrigation/Water Supply	2,50,000
4	Electrification	5,00,000
5	Plant & Machinery	1,12,20,000
6	Livestock	-
7	Insurance	30,000
8	DPR Cost	-
9	Other Misc. Exp.	-
	Total Fixed Cost	**1,42,84,000**
	Recurring	**22,74,000**
	Cost of Project	**1,65,58,000**